Harper College

2025-2026
Harper College Catalog

The Harper College Catalog is also available online.
The online version is the most up-to-date representation available.

Please note that in the case of discrepancies between
the online and print College Catalog, the online version always takes precedence.

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CATALOG

Welcome to the 2025-26 edition of the Harper College Catalog, which lists all degree and certificate programs, along with sample transfer plans (in select areas of study). The catalog also lists descriptions and prerequisites for all credit courses offered by Harper. Before beginning a course of study, please consult with your academic advisor.

This version is the most up-to-date representation available. Please note that in the case of discrepancies between the online and printed College Catalog and Student Handbook, the online version always takes precedence.

Find Programs and Courses

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TRANSFER DEGREE PROGRAMS

Harper College offers seven degree programs designed for students seeking to transfer to a four-year university to complete a bachelor's degree. Harper also offers sample transfer plans for select program areas. Check the requirements of your intended destination university and meet with your academic advisor before beginning a course of study.

2025-2026 Academic Catalog

Associate in Arts
Program Overview

These requirements apply to students who first enrolled for Fall 2025 or later. Students who first enrolled prior to Fall 2025 should obtain the appropriate sheet of requirements from a Student Development Center.

The Associate in Arts degree is a transfer-oriented option which fulfills most general education requirements and the first two years of many (but not all) baccalaureate programs at four-year institutions. Students pursuing the Associate in Arts degree are encouraged to seek the advice of an academic advisor to determine the most appropriate or required course selections for their desired major and transfer institution.

Program Requirements
Communications

3 courses.

Hours Required: 9

Code	Title	Hours
ENG 101	Composition I [1]	3
ENG 102	Composition II [1]	3
SPE 101	Fundamentals of Speech Communication	3

[1] A grade of C or better is required.

Mathematics

1 course.

Hours Required: 3

Code	Title	Hours
MTH 101	Quantitative Literacy	3
MTH 124	Finite Mathematics	3
MTH 131	Mathematics for Elementary Teaching II	4
MTH 134	Calculus for Business and Social Sciences	4
or MTH 200	Calculus I	
MTH 165	Elementary Statistics	4
or MTH 225	Business Statistics	
MTH 201	Calculus II	5
MTH 202	Calculus III	5
MTH 220	Discrete Mathematics	3

Physical and Life Sciences

2 courses with 1 course from the Life Sciences and 1 from the Physical Sciences. 1 course must be a lab science.

Hours Required: 7

Life Sciences

Code	Title	Hours
BIO 101	Biology Survey	3
BIO 103	Humans and the Environment	3
BIO 104	Environmental Laboratory Biology [1]	4
BIO 105	Heredity, Evolution and Society	3
BIO 110	Introduction to Biology and Society [1]	4
BIO 115	Fundamentals of Cellular Biology [1]	4
BIO 116	Fundamentals of Organismal Biology [1]	4
BIO 120	Plants and Society [1]	4
BIO 140	Animals and Society [1]	4

[1] Lab science course

Physical Science

Code	Title	Hours
AST 100	Astronomy Survey	3
AST 112	The Solar System [1]	4
AST 115	Stars and Galaxies [1]	4
CHM 100	Chemistry for the Health Sciences [1]	4
CHM 103	The Chemistry Connection [1]	4
CHM 105	Chemical World [1]	4
CHM 110	Fundamentals of Chemistry [1]	4
CHM 121	General Chemistry I [1]	5
ESC 100	Rocks and Minerals Survey	3
ESC 101	Earth Science Survey	3
ESC 110	Exploring the Earth and Universe [1]	4
ESC 111	Physical Geology [1]	4
ESC 112	Dinosaurs, Fossils and Planet Earth [1]	4
ESC 113	Environmental Geology [1]	4
ESC 121	Introduction to Meteorology [1]	4
GEG 111	Physical Geography	3
GEG 112	Physical Geography Laboratory [1]	1
PHY 100	Basic Concepts in Physics	3
PHY 110	Introduction to Physics [1]	4
PHY 112	Energy and Society [1]	4
PHY 121	Introductory Physics I [1]	5
PHY 201	General Physics I-Mechanics [1]	5

[1] Lab science course

Humanities and Fine Arts

3 courses with at least 1 course selected from the Humanities and at least 1 from the Fine Arts. Interdisciplinary courses may be used for both categories.

Hours Required: 9

Humanities

Code	Title	Hours
FRN 202	Intermediate French II	4
FRN 210	Introduction to French Literature	3
GER 202	Intermediate German II	4
GER 210	Introduction to German Literature [+]	3
HST 105	Great Ideas of World Civilizations	3
or HUM 105	Great Ideas of World Civilizations	
HUM 104	Introduction to Middle Eastern Civilizations [+]	3
HUM 120	Classical Mythology	3
HUM 125	World Mythology [+]	3
JPN 202	Intermediate Japanese II	4
LIT 105	Poetry	3

LIT 115	Fiction	3
LIT 208	Non-Western Literature [+]	3
LIT 210	Introduction to Shakespeare	3
LIT 219	Children's Literature	3
LIT 220	Japanese Literature in Translation [+]	3
LIT 221	American Literature, Colonial Days to Civil War	3
LIT 222	American Literature: Civil War to Present	3
LIT 223	Multicultural American Literature [+]	3
LIT 224	Women in Literature [+]	3
LIT 231	English Literature to 1800	3
LIT 232	English Literature 1800-1914	3
PHI 101	Critical Thinking	3
PHI 105	Introduction to Philosophy	3
PHI 115	Ethics	3
PHI 120	Social and Political Philosophy	3
PHI 160	Non-Western Philosophy [+]	3
PHI 205	Religions of the World [+]	3
PHI 215	Religion in America [+]	3
PHI 220	Philosophy of Religion	3
PHI 231	History of Philosophy--Ancient and Medieval	3
PHI 232	History of Philosophy-Modern	3
SGN 202	American Sign Language IV	3
SGN 210	American Sign Language: Cultural Perspective [+]	4
SPA 112	Heritage Spanish I	4
SPA 113	Heritage Spanish II	4
SPA 202	Intermediate Spanish II	4
SPA 210	Introduction to Spanish Literature [+]	3

+ Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Fine Arts

Code	Title	Hours
ART 105	Introduction to Visual Art	3
ART 114	Introduction to Film	3
ART 130	Ancient and Medieval Art	3
ART 131	Gothic through Romantic Art	3
ART 132	Modern and Contemporary Art	3
ART 133	Non-Western Art [+]	3
MCM 200	Film History [+]	3
MUS 103	Music Appreciation	3
MUS 104	Introduction to American Music [+]	3
MUS 106	Introduction to Jazz	3
MUS 107	Introduction to Music in Theatre	3
MUS 108	Introduction to World Music [+]	3
MUS 120	Introduction to Music Literature	3
THE 111	Introduction to Theatre [+]	3
THE 121	Ethnic Traditions in American Theatre	3

+ Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Interdisciplinary Studies

Code	Title	Hours
HUM 101	Ancient through the Medieval West [+]	3
HUM 102	Renaissance through the Modern West [+]	3
HUM 106	The Cultures of Asia [+]	3
HUM 107	The Cultures of Africa [+]	3
HUM 110	Women and Creativity [+]	3
LIT 112	Literature and Film	3

+ Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Social and Behavioral Science

3 courses with courses selected from at least 2 departments. May not choose SOC 215 and two PSY courses.

Hours Required: 9

Code	Title	Hours
ANT 101	Introduction to Anthropology [+]	3
ANT 202	Cultural Anthropology [+]	3
ANT 205	Physical Anthropology	3
ANT 206	Archeology [+]	3
ECO 200	Introduction to Economics [+]	3
ECO 211	Microeconomics	3
ECO 212	Macroeconomics	3
GEG 100	Cultural Geography [+]	3
GEG 101	World Regional Geography [+]	3
GEG 103	The Developing World [+]	3
GEG 104	The Developed World [+]	3
GIS 100	Introduction to Geospatial Technologies	3
HED 202	Human Sexuality [+]	3
HST 111	American Experience to 1877	3
HST 112	American Experience Since 1877	3
HST 121	History of Mexico, Central and South America [+]	3
HST 141	History of Western Civilization to 1650	4
HST 142	History of Western Civilization Since 1650	4
HST 231	History of the Middle East to 1453	3
HST 232	History of the Middle East 1453 to Present	3
HST 241	History of China: Earliest Time through Ming Dynasty	3
HST 242	History of China: From the Ching Dynasty to Present	3
HST 243	Far East in the Modern World	3
HST 245	The World Since 1945	3
PSC 101	American Politics and Government	3
PSC 220	State and Local Government in the U.S.	3
PSC 250	Comparative Politics [+]	3
PSC 270	Global Politics [+]	3
PSC 280	Non-Western Comparative Politics [+]	3
PSY 101	Introduction to Psychology [+]	3
PSY 216	Child Psychology I	3
PSY 217	Adolescent Psychology	3
PSY 218	Adult Psychology	3

PSY 228	Psychology of Human Development	3
SOC 101	Introduction to Sociology +	3
SOC 120	Family in Contemporary Society +	3
SOC 205	Social Problems +	3
SOC 215	Introduction to Social Psychology +	3
SOC 230	Sociology of Sex and Gender +	3
SOC 235	Race and Ethnicity +	3

+ Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Total General Education

No more than two GEG and two HST courses (except HST 105) may be used to fulfill the General Education requirements.

Hours Required: 37

Major Discipline and Transfer Electives

Courses must be selected from:

1. Additional credit hours from the General Education courses listed within the A.A. degree
2. Credit hours from Transfer elective courses
3. Up to 10 credits hours from 100 to 200 level courses not included in 1 and 2. above
4. Up to four hours of 100-level KIN activity courses may be used to fulfill degree requirements
5. Up to four hours of Independent Study credit

Consult sample transfer plans (https://www.harpercollege.edu/transfer/programs/?utm_medium=redirect&utm_campaign=redirects-secure&utm_source=/academics/transfer/academicplans.php) with suggested courses for specific transfer majors.

Hours Required: 23

Liberal Arts and Languages
English

Code	Title	Hours
ENG 200	Professional Writing: Grammar and Style	3
ENG 201	Advanced Composition	3
ENG 220	Creative Writing	3
ENG 221	Writing Fiction	3
ENG 222	Writing Poetry	3
ENG 230	Topics in English	1-3

French

Code	Title	Hours
FRN 101	Elementary French I	4
FRN 102	Elementary French II	4
FRN 201	Intermediate French I	4
FRN 205	French Conversation	3

German

Code	Title	Hours
GER 101	Elementary German I	4
GER 102	Elementary German II	4
GER 201	Intermediate German I	4
GER 205	German Conversation +	3
GER 230	German Civilization and Culture +	3

+ Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Humanities

Code	Title	Hours
HUM 115	International and Regional Studies in Humanities	1-4

Japanese

Code	Title	Hours
JPN 101	Elementary Japanese I	4
JPN 102	Elementary Japanese II	4
JPN 201	Intermediate Japanese I	4
JPN 205	Japanese Intensive Oral Practice	3

Literature

Code	Title	Hours
LIT 216	Science Fiction	3
LIT 217	Crime Literature	3
LIT 241	20th Century British and American Literature	3
LIT 250	Topics in Literature	1-3

Linguistics

Code	Title	Hours
LNG 105	Introduction to Language and Linguistics	3
LNG 205	Language and Culture +	3
LNG 220	Methods of Teaching English as a Second Language	3
LNG 225	Language and Health +	3
LNG 230	Second Language Assessment	3
LNG 235	Second Language Acquisition (SLA)	3
LNG 240	Introduction to Pedagogical Grammar	3
LNG 245	Foundations of Bilingual Education	3
LNG 250	Bilingual Teaching Methods and Materials	3

+ Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Mass Communication

Code	Title	Hours
MCM 120	Introduction to Mass Communication	3
MCM 130	Introduction to Journalism	3
MCM 150	Social Media Management and Measurement	3
MCM 156	Audio Production I	3
MCM 157	Podcast Production	3
MCM 180	Applied Mass Communication/Radio Practicum	1
MCM 205	Multi-Platform Photojournalism	3
MCM 210	Video Editing and Video Post-Production	3
MCM 211	Video Production	3
MCM 212	Multi-Camera Production	3
MCM 218	Broadcast Graphics	3
MCM 233	Introduction to Public Relations	3

Philosophy

Code	Title	Hours
PHI 102	Symbolic Logic	3
PHI 150	Business Ethics	3
PHI 170	Environmental Ethics	3
PHI 180	Biomedical Ethics	3
PHI 190	Philosophy and Gender [+]	3

+ Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Sign Language

Code	Title	Hours
SGN 101	American Sign Language I	4
SGN 102	American Sign Language II	4
SGN 212	Introduction to American Sign Language Literature	3

Spanish

Code	Title	Hours
SPA 101	Elementary Spanish I	4
SPA 102	Elementary Spanish II	4
SPA 121	Spanish for Law Enforcement Officers	3
SPA 122	Spanish for Healthcare Professionals	3
SPA 201	Intermediate Spanish I	4
SPA 205	Spanish Conversation [+]	3

+ Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Fine and Performing Arts

Art

Code	Title	Hours
ART 100	Art Seminar	1
ART 110	Drawing I	3
ART 111	Drawing II	3
ART 121	Design I	3
ART 122	Design II	3
ART 206	Printmaking Studio	3
ART 225	Figure Drawing Studio	3
ART 241	Digital Art and Animation Studio	3
ART 250	Introduction to Photographic Art	3
ART 251	Intermediate Photographic Art	3
ART 261	Painting Studio	3
ART 280	Topics in Art History	1-6
ART 281	Topics in Studio Art	3
ART 291	Ceramics Studio	3
ART 296	Sculpture Studio	3

Music

Code	Title	Hours
MUS 100	Introduction to Music Careers	1
MUS 101	Fundamentals of Music Theory	3
MUS 102	Introduction to Electronic/Computer Music	3
MUS 111	Theory of Music I	3
MUS 112	Theory of Music II	3
MUS 115	Aural Skills I	1
MUS 116	Aural Skills II	1
MUS 130	Choir	1
MUS 140	Band	1
MUS 145	Ensembles	1
MUS 150	Orchestra	1
MUS 165	Class Piano I	2
MUS 166	Class Piano II	2
MUS 167	Class Guitar	2
MUS 169	Class Voice	2
MUS 180	Flute and Piccolo	1
MUS 181	Oboe and English Horn	1
MUS 182	Clarinet	1
MUS 183	Bassoon and Contra Bassoon	1
MUS 184	Saxophone	1
MUS 185	French Horn	1
MUS 186	Trumpet	1
MUS 187	Trombone	1
MUS 188	Baritone	1
MUS 189	Tuba	1
MUS 190	Drum Set	1
MUS 191	Violin	1
MUS 192	Viola	1
MUS 193	Cello	1
MUS 194	String Bass	1
MUS 195	Harp	1
MUS 196	Piano	1
MUS 198	Voice	1
MUS 199	Guitar	1
MUS 211	Theory of Music III	3
MUS 212	Theory of Music IV	3
MUS 215	Aural Skills III	1
MUS 216	Aural Skills IV	1
MUS 265	Class Piano III	2
MUS 266	Class Piano IV	2
MUS 279	Private Lessons in Composition	2
MUS 280	Flute and Piccolo	2
MUS 281	Oboe and English Horn	2
MUS 282	Clarinet	2
MUS 283	Bassoon and Contra Bassoon	2
MUS 284	Saxophone	2
MUS 285	French Horn	2
MUS 286	Trumpet	2
MUS 287	Trombone	2
MUS 288	Baritone	2
MUS 289	Tuba	2
MUS 290	Drum Set	2
MUS 291	Violin	2
MUS 292	Viola	2
MUS 293	Cello	2
MUS 294	String Bass	2
MUS 295	Harp	2

MUS 296	Piano	2
MUS 298	Voice	2
MUS 299	Guitar	2

Speech

Code	Title	Hours
SPE 102	Professional Communication	3
SPE 107	Oral Interpretation	3
SPE 180	Applied Forensics I	1
SPE 181	Applied Forensics II	1
SPE 182	Applied Forensics III	1
SPE 183	Applied Forensics IV	1
SPE 200	Interpersonal Communication	3
SPE 205	Small Group Communication/Team Work	3
SPE 210	Persuasive Communication and Argumentation	3
SPE 215	Intercultural Communication [+]	3

+ Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Theatre

Code	Title	Hours
THE 190	Applied Theatre Practicum I	1
THE 191	Applied Theatre Practicum II	1
THE 192	Applied Theatre Practicum III	1
THE 193	Applied Theatre Practicum IV	1
THE 212	Acting I	3
THE 213	Acting II	3

Sciences and Mathematics

Biology

Code	Title	Hours
BIO 135	Introduction to Human Anatomy and Physiology	4
BIO 136	Introduction to Human Disease	3
BIO 230	Microbiology	4
BIO 260	Human Anatomy	4
BIO 261	Human Physiology	4
BIO 295	Independent Research in Biology I	1-3

Chemistry

Code	Title	Hours
CHM 122	General Chemistry II	5
CHM 201	Basic Organic Chemistry	4
CHM 204	Organic Chemistry I	5
CHM 205	Organic Chemistry II	5
CHM 210	Analytical Chemistry	5
CHM 220	Biochemistry	4
CHM 295	Independent Research in Chemistry I	1-3

Computer Science

Code	Title	Hours
CSC 121	Computer Science I	4
CSC 122	Computer Science II	4
CSC 211	Introduction to C Programming and UNIX	4
CSC 214	Java Programming	4
CSC 216	Data Structures and Algorithm Analysis	4
CSC 217	Assembler Programming and Machine Organization	4

Engineering

Code	Title	Hours
EGR 100	Introduction to Engineering	1
EGR 105	Problem-Solving with Matlab and Excel	1
EGR 110	Introduction to Electrical and Computer Engineering	4
EGR 120	Engineering Graphics I (CAD)	4
EGR 210	Analytical Mechanics - Statics	3
EGR 211	Analytical Mechanics - Dynamics	3
EGR 212	Mechanics of Solids	3
EGR 240	Thermodynamics	3
EGR 265	Circuit Analysis	4
EGR 295	Independent Study in Engineering	1-4

Mathematics

Code	Title	Hours
MTH 103	College Algebra	3
MTH 130	Mathematics for Elementary Teaching I	4
MTH 140	Precalculus	5
MTH 203	Linear Algebra	4
MTH 212	Differential Equations	3

Physics

Code	Title	Hours
PHY 122	Introductory Physics II	5
PHY 202	General Physics II-Electricity and Magnetism	5
PHY 203	General Physics III-Thermal and Quantum Physics	5

Social Sciences

Anthropology

Code	Title	Hours
ANT 215	Introduction to Forensic Anthropology	3
ANT 220	Topics in Anthropology	1-6

Capstone

Code	Title	Hours
CAP 201	Social Transformation Capstone	1-3

Early Childhood Education

Code	Title	Hours
ECE 101	Introduction to Early Childhood Education	3
ECE 102	Child Development	3
ECE 250	Health, Nutrition and Safety	3
ECE 252	Child-Family-Community	3
ECE 291	Early Childhood Practicum I	3

Economics

Code	Title	Hours
ECO 115	Consumer Economics	3

Education

Code	Title	Hours
EDU 201	Introduction to Education	3
EDU 202	Pre-Student Teaching Clinical Experience	1

EDU 211	Educational Psychology	3
EDU 219	Students with Disabilities in School	3
EDU 220	Diversity in Schools and Society [+]	3
EDU 230	Introduction to Language Arts in Elementary/ Middle School Teaching	3
EDU 250	Introduction to Technology in Education	3
EDU 290	Topics in Education	0.5-3

+ Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Geographic Information Systems

Code	Title	Hours
GIS 101	Geospatial Data Acquisition and Management	3
GIS 102	Spatial Analysis	3
GIS 103	Applied Geospatial Technology	3
GIS 200	Introduction to Remote Sensing	3

History

Code	Title	Hours
HST 151	History of England: Norman Conquest to 1600	3
HST 152	History of England: 1600 to Present	3
HST 153	British Culture and Society	3
HST 202	Topics in History	1-3
HST 210	Women: The American Experience [+]	3
HST 212	Recent American History, 1945-Present	3
HST 214	African-American History [+]	3
HST 219	Illinois and Local History	3
HST 261	American Civil War 1848-1865	3
HST 270	History of Rome	3
HST 281	World War I	3
HST 282	World War II	3

+ Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Law Enforcement and Criminal Justice

Code	Title	Hours
LEJ 101	Introduction to Criminal Justice	3
LEJ 104	Corrections	3
LEJ 201	Criminal Law	3
LEJ 202	Criminal Procedures	3
LEJ 205	Juvenile Justice	3
LEJ 210	Criminology	3

Political Science

Code	Title	Hours
PSC 210	Topics in Political Science	1-6
PSC 260	Middle Eastern Politics [+]	3

+ Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Psychology

Code	Title	Hours
PSY 210	Introduction to Research in Psychology	3
PSY 220	Biological Basis of Behavior	3
PSY 225	Theories of Personality	3
PSY 230	Abnormal Psychology	3
PSY 245	Industrial/Organizational Psychology	3
PSY 251	African American Psychology [+]	3

Sociology

Code	Title	Hours
SOC 220	Topics in Social Science	1-6

Wellness and Life Skills

Diversity

Code	Title	Hours
DIV 101	Exploring Diversity in the U.S. [+]	3

+ Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

First Year Seminar

Code	Title	Hours
FYS 101	First Year Seminar	1-3

Health Education

Code	Title	Hours
HED 200	Health [+]	3
HED 201	Drugs in Our Culture	3
HED 204	Women's Health [+]	3
HED 206	Introduction to Community and Public Health	3
HED 250	Topics in Health Education	1-3

+ Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Health Science Core

Code	Title	Hours
HSC 213	Legal and Ethical Issues in Health Care	2

Kinesiology

Code	Title	Hours
KIN 200	Introduction to the Field of Kinesiology	3
KIN 201	Instructional Strategies for Physical Education	3
KIN 202	Standard First Aid and CPR	3
KIN 203	Wellness for Life	3
KIN 214	Exercise Technique and Instruction	2
KIN 217	Fundamental Sport Skills	3
KIN 220	Introduction to Coaching	3
KIN 221	Care and Prevention of Athletic Injuries	3
KIN 222	Sports Officiating	2
KIN 223	Sports Psychology	3
KIN 224	Sociology of Sport	3
KIN 225	Sports Nutrition	3
KIN 230	Exercise Science	3
KIN 231	Fitness Assessment and Programming	3

KIN 234	Personal Training Practicum	3
KIN 236	Functional Anatomy	3
KIN 250	Topics in Kinesiology	1-3

Nutrition

Code	Title	Hours
NTR 100	Introduction to the Nutrition Profession	1
NTR 101	Fundamentals of Nutrition	3
NTR 110	Principles of Food Preparation	3
NTR 200	Nutrition through the Lifecycle	3
NTR 205	World Cultures and Food [+]	3
NTR 210	Food Science	3
NTR 225	Sports Nutrition	3
NTR 295	Community Nutrition	3

+ Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Psychology

Code	Title	Hours
PSY 106	Practical Psychology	1-3
PSY 107	Humanistic Psychology:Personal Growth	3
PSY 108	Topics in Psychology	2-3

Business and Work Skills

Accounting

Code	Title	Hours
ACC 101	Introduction to Financial Accounting	4
ACC 102	Introduction to Managerial Accounting	3
ACC 201	Intermediate Accounting I	3
ACC 202	Intermediate Accounting II	3
ACC 203	Cost Accounting	3
ACC 211	Business Law I	3
ACC 213	Legal Environment of Business	3

Architecture

Code	Title	Hours
ARC 105	Presentation and Communication Tools	3
ARC 106	Introduction to Architecture	3
ARC 110	Architectural Design Principles	4
ARC 113	Building Materials I	4
ARC 125	Chicago's Architectural History	3
ARC 201	Architectural Design Studio I	4
ARC 202	Architectural Design Studio II	4
ARC 213	Building Materials II	4
ARC 223	History of Architecture	3

Career Development

Code	Title	Hours
CDV 110	Career Development	2

Computer Information Systems

Code	Title	Hours
CIS 100	Computer and Digital Literacy	3
CIS 101	Introduction to Computer Information Systems	3

CIS 206	Applied Programming	4
CIS 216	Applied Object-Oriented Programming	4

Management

Code	Title	Hours
MGT 111	Introduction to Business Organization	3
MGT 218	Introduction to Finance	3

Marketing

Code	Title	Hours
MKT 217	Advertising	3
MKT 245	Principles of Marketing	3

Web Development

Code	Title	Hours
WEB 110	Internet Fundamentals	3
WEB 150	Web Foundations	3

World Cultures and Diversity Requirement

One 3-credit hour course is required. Courses that fulfill this requirement may also be used to fulfill requirements in the General Education category.

Select one course marked with a + from the above Groups.

Total Hours Required

Hours Required: 60

Associate in Science
Program Overview

These requirements apply to students who first enrolled for Fall 2025 or later. Students who first enrolled prior to Fall 2025 should obtain the appropriate sheet of requirements from a Student Development Center.

The Associate in Science degree is a transfer-oriented option which fulfills most general education requirements and the first two years of many (but not all) baccalaureate programs at four-year institutions. Students pursuing the Associate in Science degree are encouraged to seek the advice of an academic advisor to determine the most appropriate or required course selections for their desired major and transfer institution.

Program Requirements
Communications

3 courses.

Hours Required: 9

Code	Title	Hours
ENG 101	Composition I [1]	3
ENG 102	Composition II [1]	3
SPE 101	Fundamentals of Speech Communication	3

[1] A grade of C or better is required.

Mathematics

1 course.

Hours Required: 3

Code	Title	Hours
MTH 124	Finite Mathematics	3
MTH 131	Mathematics for Elementary Teaching II	4
MTH 134	Calculus for Business and Social Sciences	4
or MTH 200	Calculus I	
MTH 165	Elementary Statistics	4
or MTH 225	Business Statistics	
MTH 201	Calculus II	5
MTH 202	Calculus III	5
MTH 220	Discrete Mathematics	3

Physical and Life Sciences

At least 1 course from the Life Sciences and 1 from the Physical Sciences. 1 course must be a lab science. With appropriate prerequisites an initial course for science majors or advanced level course may be substituted.

Hours Required: 7

Life Sciences

Code	Title	Hours
BIO 101	Biology Survey	3
BIO 103	Humans and the Environment	3
BIO 104	Environmental Laboratory Biology [1]	4
BIO 105	Heredity, Evolution and Society	3
BIO 110	Introduction to Biology and Society [1]	4
BIO 115	Fundamentals of Cellular Biology [1]	4
BIO 116	Fundamentals of Organismal Biology [1]	4
BIO 120	Plants and Society [1]	4
BIO 140	Animals and Society [1]	4

[1] Lab science course

Physical Sciences

Code	Title	Hours
AST 100	Astronomy Survey	3
AST 112	The Solar System [1]	4
AST 115	Stars and Galaxies [1]	4
CHM 100	Chemistry for the Health Sciences [1]	4
CHM 103	The Chemistry Connection [1]	4
CHM 105	Chemical World [1]	4
CHM 110	Fundamentals of Chemistry [1]	4
CHM 121	General Chemistry I [1]	5
ESC 100	Rocks and Minerals Survey	3
ESC 101	Earth Science Survey	3
ESC 110	Exploring the Earth and Universe [1]	4
ESC 111	Physical Geology [1]	4
ESC 112	Dinosaurs, Fossils and Planet Earth [1]	4
ESC 113	Environmental Geology [1]	4
ESC 121	Introduction to Meteorology [1]	4
GEG 111	Physical Geography	3
GEG 112	Physical Geography Laboratory [1]	1
PHY 100	Basic Concepts in Physics	3
PHY 110	Introduction to Physics [1]	4
PHY 112	Energy and Society [1]	4
PHY 121	Introductory Physics I [1]	5
PHY 201	General Physics I-Mechanics [1]	5

[1] Lab science course

Humanities and Fine Arts

3 additional hours of Social and Behavioral Sciences **and** 3 additional hours of Humanities and Fine Arts will be required at the transfer institution to complete the Illinois Articulation Initiative General Education Core Curriculum.

1 course selected from the Humanities and at least 1 from the Fine Arts. Interdisciplinary courses may be used for both categories.

Hours Required: 6

Humanities

Code	Title	Hours
FRN 202	Intermediate French II	4
FRN 210	Introduction to French Literature	3
GER 202	Intermediate German II	4
GER 210	Introduction to German Literature +	3
HST 105	Great Ideas of World Civilizations	3
or HUM 105	Great Ideas of World Civilizations	
HUM 104	Introduction to Middle Eastern Civilizations +	3

HUM 120	Classical Mythology	3
HUM 125	World Mythology [+]	3
JPN 202	Intermediate Japanese II	4
LIT 105	Poetry	3
LIT 115	Fiction	3
LIT 208	Non-Western Literature [+]	3
LIT 210	Introduction to Shakespeare	3
LIT 219	Children's Literature	3
LIT 220	Japanese Literature in Translation [+]	3
LIT 221	American Literature, Colonial Days to Civil War	3
LIT 222	American Literature: Civil War to Present	3
LIT 223	Multicultural American Literature [+]	3
LIT 224	Women in Literature [+]	3
LIT 231	English Literature to 1800	3
LIT 232	English Literature 1800-1914	3
PHI 101	Critical Thinking	3
PHI 105	Introduction to Philosophy	3
PHI 115	Ethics	3
PHI 120	Social and Political Philosophy	3
PHI 160	Non-Western Philosophy [+]	3
PHI 205	Religions of the World [+]	3
PHI 215	Religion in America [+]	3
PHI 220	Philosophy of Religion	3
PHI 231	History of Philosophy--Ancient and Medieval	3
PHI 232	History of Philosophy-Modern	3
SGN 202	American Sign Language IV	3
SGN 210	American Sign Language: Cultural Perspective [+]	4
SPA 112	Heritage Spanish I	4
SPA 113	Heritage Spanish II	4
SPA 202	Intermediate Spanish II	4
SPA 210	Introduction to Spanish Literature [+]	3

+ Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Fine Arts

Code	Title	Hours
ART 105	Introduction to Visual Art	3
ART 114	Introduction to Film	3
ART 130	Ancient and Medieval Art	3
ART 131	Gothic through Romantic Art	3
ART 132	Modern and Contemporary Art	3
ART 133	Non-Western Art [+]	3
MCM 200	Film History [+]	3
MUS 103	Music Appreciation	3
MUS 104	Introduction to American Music [+]	3
MUS 106	Introduction to Jazz	3
MUS 107	Introduction to Music in Theatre	3
MUS 108	Introduction to World Music [+]	3
MUS 120	Introduction to Music Literature	3
THE 111	Introduction to Theatre [+]	3
THE 121	Ethnic Traditions in American Theatre	3

[1] Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Interdisciplinary Studies

Code	Title	Hours
HUM 101	Ancient through the Medieval West [+]	3
HUM 102	Renaissance through the Modern West [+]	3
HUM 106	The Cultures of Asia [+]	3
HUM 107	The Cultures of Africa [+]	3
HUM 110	Women and Creativity [+]	3
LIT 112	Literature and Film	3

+ Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Social and Behavioral Sciences

3 additional hours of Social and Behavioral Sciences **and** 3 additional hours of Humanities and Fine Arts will be required at the transfer institution to complete the Illinois Articulation Initiative General Education Core Curriculum.

2 courses selected from at least two departments.

Hours Required: 6

Code	Title	Hours
ANT 101	Introduction to Anthropology [+]	3
ANT 202	Cultural Anthropology [+]	3
ANT 205	Physical Anthropology	3
ANT 206	Archeology [+]	3
ECO 200	Introduction to Economics [+]	3
ECO 211	Microeconomics	3
ECO 212	Macroeconomics	3
GEG 100	Cultural Geography [+]	3
GEG 101	World Regional Geography [+]	3
GEG 103	The Developing World [+]	3
GEG 104	The Developed World [+]	3
GIS 100	Introduction to Geospatial Technologies	3
HED 202	Human Sexuality [+]	3
HST 111	American Experience to 1877	3
HST 112	American Experience Since 1877	3
HST 121	History of Mexico, Central and South America [+]	3
HST 141	History of Western Civilization to 1650	4
HST 142	History of Western Civilization Since 1650	4
HST 231	History of the Middle East to 1453	3
HST 232	History of the Middle East 1453 to Present	3
HST 241	History of China: Earliest Time through Ming Dynasty	3
HST 242	History of China: From the Ching Dynasty to Present	3
HST 243	Far East in the Modern World	3
HST 245	The World Since 1945	3
PSC 101	American Politics and Government	3
PSC 220	State and Local Government in the U.S.	3

PSC 250	Comparative Politics [+]	3
PSC 270	Global Politics [+]	3
PSC 280	Non-Western Comparative Politics [+]	3
PSY 101	Introduction to Psychology [+]	3
PSY 216	Child Psychology I	3
PSY 217	Adolescent Psychology	3
PSY 218	Adult Psychology	3
PSY 228	Psychology of Human Development	3
SOC 101	Introduction to Sociology [+]	3
SOC 120	Family in Contemporary Society [+]	3
SOC 205	Social Problems [+]	3
SOC 215	Introduction to Social Psychology [+]	3
SOC 230	Sociology of Sex and Gender [+]	3
SOC 235	Race and Ethnicity [+]	3

[+] Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Total General Education

No more than two GEG and two HST courses (except HST 105) may be used to fulfill the General Education requirements.

Hours Required: 31

Additional Mathematics Course

At least one course, 100 level or above, must be selected in mathematics.

Hours Required: 3

Code	Title	Hours
MTH 101	Quantitative Literacy	3
MTH 103	College Algebra	3
MTH 124	Finite Mathematics	3
MTH 130	Mathematics for Elementary Teaching I	4
MTH 131	Mathematics for Elementary Teaching II	4
MTH 134	Calculus for Business and Social Sciences	4
or MTH 200	Calculus I	
MTH 140	Precalculus	5
MTH 165	Elementary Statistics	4
or MTH 225	Business Statistics	
MTH 201	Calculus II	5
MTH 202	Calculus III	5
MTH 203	Linear Algebra	4
MTH 212	Differential Equations	3
MTH 220	Discrete Mathematics	3

Additional Science Course

At least one course, 100 level or above with a total of three credit hours or more, must be selected in science.

Hours Required: 3

Code	Title	Hours
AST 100	Astronomy Survey	3
AST 112	The Solar System	4
AST 115	Stars and Galaxies	4

BIO 101	Biology Survey	3
BIO 103	Humans and the Environment	3
BIO 104	Environmental Laboratory Biology	4
BIO 105	Heredity, Evolution and Society	3
BIO 110	Introduction to Biology and Society	4
BIO 115	Fundamentals of Cellular Biology	4
BIO 116	Fundamentals of Organismal Biology	4
BIO 120	Plants and Society	4
BIO 135	Introduction to Human Anatomy and Physiology	4
BIO 136	Introduction to Human Disease	3
BIO 140	Animals and Society	4
BIO 230	Microbiology	4
BIO 260	Human Anatomy	4
BIO 261	Human Physiology	4
BIO 295	Independent Research in Biology I	1-3
CHM 100	Chemistry for the Health Sciences	4
CHM 103	The Chemistry Connection	4
CHM 105	Chemical World	4
CHM 110	Fundamentals of Chemistry	4
CHM 121	General Chemistry I	5
CHM 122	General Chemistry II	5
CHM 201	Basic Organic Chemistry	4
CHM 204	Organic Chemistry I	5
CHM 205	Organic Chemistry II	5
CHM 210	Analytical Chemistry	5
CHM 220	Biochemistry	4
CHM 295	Independent Research in Chemistry I	1-3
CSC 121	Computer Science I	4
CSC 122	Computer Science II	4
CSC 211	Introduction to C Programming and UNIX	4
CSC 214	Java Programming	4
CSC 216	Data Structures and Algorithm Analysis	4
CSC 217	Assembler Programming and Machine Organization	4
EGR 100	Introduction to Engineering	1
EGR 105	Problem-Solving with Matlab and Excel	1
EGR 110	Introduction to Electrical and Computer Engineering	4
EGR 120	Engineering Graphics I (CAD)	4
EGR 210	Analytical Mechanics - Statics	3
EGR 211	Analytical Mechanics - Dynamics	3
EGR 212	Mechanics of Solids	3
EGR 240	Thermodynamics	3
EGR 265	Circuit Analysis	4
ESC 100	Rocks and Minerals Survey	3
ESC 101	Earth Science Survey	3
ESC 110	Exploring the Earth and Universe	4
ESC 111	Physical Geology	4
ESC 112	Dinosaurs, Fossils and Planet Earth	4
ESC 113	Environmental Geology	4
ESC 121	Introduction to Meteorology	4
GEG 111	Physical Geography	3

GEG 112	Physical Geography Laboratory	1
PHY 100	Basic Concepts in Physics	3
PHY 110	Introduction to Physics	4
PHY 112	Energy and Society	4
PHY 121	Introductory Physics I	5
PHY 122	Introductory Physics II	5
PHY 201	General Physics I-Mechanics	5
PHY 202	General Physics II-Electricity and Magnetism	5
PHY 203	General Physics III-Thermal and Quantum Physics	5

Major Discipline and Transfer Electives

Courses must be selected from:

1. Additional credit hours from General Education courses or Additional Mathematics and Science Courses within the A.S. degree
2. Credit hours from Transfer elective courses
3. Up to 10 credits hours from 100 to 200 level courses not included in 1 and 2. above
4. Up to four hours of 100-level KIN activity courses may be used to fulfill degree requirements
5. Up to four hours of Independent Study credit

Consult sample transfer plans (https://www.harpercollege.edu/transfer/programs/?utm_medium=redirect&utm_campaign=redirects-secure&utm_source=/academics/transfer/academicplans.php) with suggested courses for specific transfer majors.

Hours Required: 23

LIBERAL ARTS AND LANGUAGES
English

Code	Title	Hours
ENG 200	Professional Writing: Grammar and Style	3
ENG 201	Advanced Composition	3
ENG 220	Creative Writing	3
ENG 221	Writing Fiction	3
ENG 222	Writing Poetry	3
ENG 230	Topics in English	1-3

French

Code	Title	Hours
FRN 101	Elementary French I	4
FRN 102	Elementary French II	4
FRN 201	Intermediate French I	4
FRN 205	French Conversation	3

German

Code	Title	Hours
GER 101	Elementary German I	4
GER 102	Elementary German II	4
GER 201	Intermediate German I	4
GER 205	German Conversation [+]	3
GER 230	German Civilization and Culture [+]	3

[+] Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Humanities

Code	Title	Hours
HUM 115	International and Regional Studies in Humanities	1-4

Japanese

Code	Title	Hours
JPN 101	Elementary Japanese I	4
JPN 102	Elementary Japanese II	4
JPN 201	Intermediate Japanese I	4
JPN 205	Japanese Intensive Oral Practice	3

Literature

Code	Title	Hours
LIT 216	Science Fiction	3
LIT 217	Crime Literature	3
LIT 241	20th Century British and American Literature	3
LIT 250	Topics in Literature	1-3

Linguistics

Code	Title	Hours
LNG 105	Introduction to Language and Linguistics	3
LNG 205	Language and Culture [+]	3
LNG 220	Methods of Teaching English as a Second Language	3
LNG 225	Language and Health [+]	3
LNG 230	Second Language Assessment	3
LNG 235	Second Language Acquisition (SLA)	3
LNG 240	Introduction to Pedagogical Grammar	3
LNG 245	Foundations of Bilingual Education	3
LNG 250	Bilingual Teaching Methods and Materials	3

[+] Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Mass Communication

Code	Title	Hours
MCM 120	Introduction to Mass Communication	3
MCM 130	Introduction to Journalism	3
MCM 150	Social Media Management and Measurement	3
MCM 156	Audio Production I	3
MCM 157	Podcast Production	3
MCM 180	Applied Mass Communication/Radio Practicum	1
MCM 205	Multi-Platform Photojournalism	3
MCM 210	Video Editing and Video Post-Production	3
MCM 211	Video Production	3
MCM 212	Multi-Camera Production	3
MCM 218	Broadcast Graphics	3
MCM 233	Introduction to Public Relations	3

Philosophy

Code	Title	Hours
PHI 102	Symbolic Logic	3
PHI 150	Business Ethics	3
PHI 170	Environmental Ethics	3

Code	Title	Hours
PHI 180	Biomedical Ethics	3
PHI 190	Philosophy and Gender [+]	3

+ Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Sign Language

Code	Title	Hours
SGN 101	American Sign Language I	4
SGN 102	American Sign Language II	4
SGN 212	Introduction to American Sign Language Literature	3

Spanish

Code	Title	Hours
SPA 101	Elementary Spanish I	4
SPA 102	Elementary Spanish II	4
SPA 121	Spanish for Law Enforcement Officers	3
SPA 122	Spanish for Healthcare Professionals	3
SPA 201	Intermediate Spanish I	4
SPA 205	Spanish Conversation [+]	3

+ Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

fine AND PERFORMING arts

Art

Code	Title	Hours
ART 100	Art Seminar	1
ART 110	Drawing I	3
ART 111	Drawing II	3
ART 121	Design I	3
ART 122	Design II	3
ART 206	Printmaking Studio	3
ART 225	Figure Drawing Studio	3
ART 241	Digital Art and Animation Studio	3
ART 250	Introduction to Photographic Art	3
ART 251	Intermediate Photographic Art	3
ART 261	Painting Studio	3
ART 280	Topics in Art History	1-6
ART 281	Topics in Studio Art	3
ART 291	Ceramics Studio	3
ART 296	Sculpture Studio	3

Music

Code	Title	Hours
MUS 100	Introduction to Music Careers	1
MUS 101	Fundamentals of Music Theory	3
MUS 102	Introduction to Electronic/Computer Music	3
MUS 111	Theory of Music I	3
MUS 112	Theory of Music II	3
MUS 115	Aural Skills I	1
MUS 116	Aural Skills II	1
MUS 130	Choir	1
MUS 140	Band	1
MUS 145	Ensembles	1
MUS 150	Orchestra	1
MUS 165	Class Piano I	2
MUS 166	Class Piano II	2
MUS 167	Class Guitar	2
MUS 169	Class Voice	2
MUS 180	Flute and Piccolo	1
MUS 181	Oboe and English Horn	1
MUS 182	Clarinet	1
MUS 183	Bassoon and Contra Bassoon	1
MUS 184	Saxophone	1
MUS 185	French Horn	1
MUS 186	Trumpet	1
MUS 187	Trombone	1
MUS 188	Baritone	1
MUS 189	Tuba	1
MUS 190	Drum Set	1
MUS 191	Violin	1
MUS 192	Viola	1
MUS 193	Cello	1
MUS 194	String Bass	1
MUS 195	Harp	1
MUS 196	Piano	1
MUS 198	Voice	1
MUS 199	Guitar	1
MUS 211	Theory of Music III	3
MUS 212	Theory of Music IV	3
MUS 215	Aural Skills III	1
MUS 216	Aural Skills IV	1
MUS 265	Class Piano III	2
MUS 266	Class Piano IV	2
MUS 279	Private Lessons in Composition	2
MUS 280	Flute and Piccolo	2
MUS 281	Oboe and English Horn	2
MUS 282	Clarinet	2
MUS 283	Bassoon and Contra Bassoon	2
MUS 284	Saxophone	2
MUS 285	French Horn	2
MUS 286	Trumpet	2
MUS 287	Trombone	2
MUS 288	Baritone	2
MUS 289	Tuba	2
MUS 290	Drum Set	2
MUS 291	Violin	2
MUS 292	Viola	2
MUS 293	Cello	2
MUS 294	String Bass	2
MUS 295	Harp	2
MUS 296	Piano	2
MUS 298	Voice	2
MUS 299	Guitar	2

Speech

Code	Title	Hours
SPE 102	Professional Communication	3
SPE 107	Oral Interpretation	3
SPE 180	Applied Forensics I	1
SPE 181	Applied Forensics II	1
SPE 182	Applied Forensics III	1
SPE 183	Applied Forensics IV	1
SPE 200	Interpersonal Communication	3
SPE 205	Small Group Communication/Team Work	3
SPE 210	Persuasive Communication and Argumentation	3
SPE 215	Intercultural Communication [+]	3

[+] Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Theatre

Code	Title	Hours
THE 190	Applied Theatre Practicum I	1
THE 191	Applied Theatre Practicum II	1
THE 192	Applied Theatre Practicum III	1
THE 193	Applied Theatre Practicum IV	1
THE 212	Acting I	3
THE 213	Acting II	3

SCIENCES AND MATHEMATICS

Biology

Code	Title	Hours
BIO 135	Introduction to Human Anatomy and Physiology	4
BIO 136	Introduction to Human Disease	3
BIO 230	Microbiology	4
BIO 260	Human Anatomy	4
BIO 261	Human Physiology	4
BIO 295	Independent Research in Biology I	1-3

Chemistry

Code	Title	Hours
CHM 122	General Chemistry II	5
CHM 201	Basic Organic Chemistry	4
CHM 204	Organic Chemistry I	5
CHM 205	Organic Chemistry II	5
CHM 210	Analytical Chemistry	5
CHM 220	Biochemistry	4
CHM 295	Independent Research in Chemistry I	1-3

Computer Science

Code	Title	Hours
CSC 121	Computer Science I	4
CSC 122	Computer Science II	4
CSC 211	Introduction to C Programming and UNIX	4
CSC 214	Java Programming	4
CSC 216	Data Structures and Algorithm Analysis	4
CSC 217	Assembler Programming and Machine Organization	4

Engineering

Code	Title	Hours
EGR 100	Introduction to Engineering	1
EGR 105	Problem-Solving with Matlab and Excel	1
EGR 110	Introduction to Electrical and Computer Engineering	4
EGR 120	Engineering Graphics I (CAD)	4
EGR 210	Analytical Mechanics - Statics	3
EGR 211	Analytical Mechanics - Dynamics	3
EGR 212	Mechanics of Solids	3
EGR 240	Thermodynamics	3
EGR 265	Circuit Analysis	4
EGR 295	Independent Study in Engineering	1-4

Mathematics

Code	Title	Hours
MTH 103	College Algebra	3
MTH 130	Mathematics for Elementary Teaching I	4
MTH 140	Precalculus	5
MTH 203	Linear Algebra	4
MTH 212	Differential Equations	3

Physics

Code	Title	Hours
PHY 122	Introductory Physics II	5
PHY 202	General Physics II-Electricity and Magnetism	5
PHY 203	General Physics III-Thermal and Quantum Physics	5

SOCIAL SCIENCES

Anthropology

Code	Title	Hours
ANT 215	Introduction to Forensic Anthropology	3
ANT 220	Topics in Anthropology	1-6

Capstone

Code	Title	Hours
CAP 201	Social Transformation Capstone	1-3

Early Childhood Education

Code	Title	Hours
ECE 101	Introduction to Early Childhood Education	3
ECE 102	Child Development	3
ECE 250	Health, Nutrition and Safety	3
ECE 252	Child-Family-Community	3
ECE 291	Early Childhood Practicum I	3

Economics

Code	Title	Hours
ECO 115	Consumer Economics	3

Education

Code	Title	Hours
EDU 201	Introduction to Education	3
EDU 202	Pre-Student Teaching Clinical Experience	1
EDU 211	Educational Psychology	3
EDU 219	Students with Disabilities in School	3
EDU 220	Diversity in Schools and Society [+]	3

EDU 230	Introduction to Language Arts in Elementary/ Middle School Teaching	3
EDU 250	Introduction to Technology in Education	3
EDU 290	Topics in Education	0.5-3

+ Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Geographic Information Systems

Code	Title	Hours
GIS 101	Geospatial Data Acquisition and Management	3
GIS 102	Spatial Analysis	3
GIS 103	Applied Geospatial Technology	3
GIS 200	Introduction to Remote Sensing	3

History

Code	Title	Hours
HST 151	History of England: Norman Conquest to 1600	3
HST 152	History of England: 1600 to Present	3
HST 153	British Culture and Society	3
HST 202	Topics in History	1-3
HST 210	Women: The American Experience [+]	3
HST 212	Recent American History, 1945-Present	3
HST 214	African-American History [+]	3
HST 219	Illinois and Local History	3
HST 261	American Civil War 1848-1865	3
HST 270	History of Rome	3
HST 281	World War I	3
HST 282	World War II	3

+ Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Law Enforcement and Criminal Justice

Code	Title	Hours
LEJ 101	Introduction to Criminal Justice	3
LEJ 104	Corrections	3
LEJ 201	Criminal Law	3
LEJ 202	Criminal Procedures	3
LEJ 205	Juvenile Justice	3
LEJ 210	Criminology	3

Political Science

Code	Title	Hours
PSC 210	Topics in Political Science	1-6
PSC 260	Middle Eastern Politics [+]	3

+ Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Psychology

Code	Title	Hours
PSY 210	Introduction to Research in Psychology	3
PSY 220	Biological Basis of Behavior	3
PSY 225	Theories of Personality	3
PSY 230	Abnormal Psychology	3
PSY 245	Industrial/Organizational Psychology	3
PSY 251	African American Psychology [+]	3

Sociology

Code	Title	Hours
SOC 220	Topics in Social Science	1-6

WELLNESS AND LIFE SKILLS

Diversity

Code	Title	Hours
DIV 101	Exploring Diversity in the U.S. [+]	3

+ Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

First Year Seminar

Code	Title	Hours
FYS 101	First Year Seminar	1-3

Health Education

Code	Title	Hours
HED 200	Health [+]	3
HED 201	Drugs in Our Culture	3
HED 204	Women's Health [+]	3
HED 206	Introduction to Community and Public Health	3
HED 250	Topics in Health Education	1-3

+ Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Health Science Core

Code	Title	Hours
HSC 213	Legal and Ethical Issues in Health Care	2

Kinesiology

Code	Title	Hours
KIN 200	Introduction to the Field of Kinesiology	3
KIN 201	Instructional Strategies for Physical Education	3
KIN 202	Standard First Aid and CPR	3
KIN 203	Wellness for Life	3
KIN 214	Exercise Technique and Instruction	2
KIN 217	Fundamental Sport Skills	3
KIN 220	Introduction to Coaching	3
KIN 221	Care and Prevention of Athletic Injuries	3
KIN 222	Sports Officiating	2
KIN 223	Sports Psychology	3
KIN 224	Sociology of Sport	3
KIN 225	Sports Nutrition	3
KIN 230	Exercise Science	3
KIN 231	Fitness Assessment and Programming	3
KIN 234	Personal Training Practicum	3
KIN 236	Functional Anatomy	3
KIN 250	Topics in Kinesiology	1-3

Nutrition

Code	Title	Hours
NTR 100	Introduction to the Nutrition Profession	1
NTR 101	Fundamentals of Nutrition	3
NTR 110	Principles of Food Preparation	3
NTR 200	Nutrition through the Lifecycle	3
NTR 205	World Cultures and Food [+]	3
NTR 210	Food Science	3
NTR 225	Sports Nutrition	3
NTR 295	Community Nutrition	3

+ Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Psychology

Code	Title	Hours
PSY 106	Practical Psychology	1-3
PSY 107	Humanistic Psychology:Personal Growth	3
PSY 108	Topics in Psychology	2-3

BUSINESS AND WORK SKILLS

Accounting

Code	Title	Hours
ACC 101	Introduction to Financial Accounting	4
ACC 102	Introduction to Managerial Accounting	3
ACC 201	Intermediate Accounting I	3
ACC 202	Intermediate Accounting II	3
ACC 203	Cost Accounting	3
ACC 211	Business Law I	3
ACC 213	Legal Environment of Business	3

Architecture

Code	Title	Hours
ARC 105	Presentation and Communication Tools	3
ARC 106	Introduction to Architecture	3
ARC 110	Architectural Design Principles	4
ARC 113	Building Materials I	4
ARC 125	Chicago's Architectural History	3
ARC 201	Architectural Design Studio I	4
ARC 202	Architectural Design Studio II	4
ARC 213	Building Materials II	4
ARC 223	History of Architecture	3

Career Development

Code	Title	Hours
CDV 110	Career Development	2

Computer Information Systems

Code	Title	Hours
CIS 100	Computer and Digital Literacy	3
CIS 101	Introduction to Computer Information Systems	3
CIS 206	Applied Programming	4
CIS 216	Applied Object-Oriented Programming	4

Management

Code	Title	Hours
MGT 111	Introduction to Business Organization	3
MGT 218	Introduction to Finance	3

Marketing

Code	Title	Hours
MKT 217	Advertising	3
MKT 245	Principles of Marketing	3

Web Development

Code	Title	Hours
WEB 110	Internet Fundamentals	3
WEB 150	Web Foundations	3

World Cultures and Diversity Requirement

One 3-credit hour course is required. Courses that fulfill this requirement may also be used to fulfill requirements in the General Education category.

Select one course marked with a + from the above Groups.

Total Hours Required

Hours Required: 60

Associate in Engineering Science

Engineering, Math and Computer Science

Program Overview

These requirements apply to students who first enrolled for Fall 2025 or later. Students who first enrolled prior to Fall 2025 should obtain the appropriate sheet of requirements from a Student Development Center.

Completion of the Associate in Engineering Science degree does not fulfill the requirements of the Illinois General Education core curriculum. After transfer, AES students will need to complete the general education requirements of the institution to which they transfer.

No more than two GEG and two HST courses (except HST 105) may be used to fulfill the General Education requirements.

Program Requirements

Communications

2 courses

Hours Required: 6

Code	Title	Hours
ENG 101	Composition I [1]	3
ENG 102	Composition II [1]	3

[1] A grade of C or better is required.

Mathematics

Hours Required: 15

Code	Title	Hours
MTH 200	Calculus I	5
MTH 201	Calculus II	5
MTH 202	Calculus III	5

Computer Science

Computer Science elective should be chosen based on engineering specialty and requirements of institution to which students transfer.

Hours Required: 4

Code	Title	Hours
CSC 121	Computer Science I	4

Physical and Life Sciences

Hours Required: 15

Code	Title	Hours
CHM 121	General Chemistry I	5
PHY 201	General Physics I-Mechanics	5
PHY 202	General Physics II-Electricity and Magnetism	5

Humanities and Fine Arts

Minimum of 3 hours required from this category.

One 3 credit-hour + course is required for graduation and must be from either the Humanities/Fine Arts or the Social Behavioral Sciences. An additional Humanities/Fine Arts course may be required at the transfer institution.

Hours Required: 3

Humanities

Code	Title	Hours
FRN 202	Intermediate French II	4
FRN 210	Introduction to French Literature	3
GER 202	Intermediate German II	4
GER 210	Introduction to German Literature [+]	3
HST 105	Great Ideas of World Civilizations	3
or HUM 105	Great Ideas of World Civilizations	
HUM 104	Introduction to Middle Eastern Civilizations [+]	3
HUM 120	Classical Mythology	3
HUM 125	World Mythology [+]	3
JPN 202	Intermediate Japanese II	4
LIT 105	Poetry	3
LIT 115	Fiction	3
LIT 208	Non-Western Literature [+]	3
LIT 210	Introduction to Shakespeare	3
LIT 219	Children's Literature	3
LIT 220	Japanese Literature in Translation [+]	3
LIT 221	American Literature, Colonial Days to Civil War	3
LIT 222	American Literature: Civil War to Present	3
LIT 223	Multicultural American Literature [+]	3
LIT 224	Women in Literature [+]	3
LIT 231	English Literature to 1800	3
LIT 232	English Literature 1800-1914	3
PHI 101	Critical Thinking	3
PHI 105	Introduction to Philosophy	3
PHI 115	Ethics	3
PHI 120	Social and Political Philosophy	3
PHI 160	Non-Western Philosophy [+]	3
PHI 205	Religions of the World [+]	3
PHI 215	Religion in America [+]	3
PHI 220	Philosophy of Religion	3
PHI 231	History of Philosophy--Ancient and Medieval	3
PHI 232	History of Philosophy-Modern	3
SGN 202	American Sign Language IV	3
SGN 210	American Sign Language: Cultural Perspective [+]	4
SPA 202	Intermediate Spanish II	4
SPA 210	Introduction to Spanish Literature [+]	3

+ Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Fine Arts

Code	Title	Hours
ART 105	Introduction to Visual Art	3
ART 114	Introduction to Film	3
ART 130	Ancient and Medieval Art	3
ART 131	Gothic through Romantic Art	3
ART 132	Modern and Contemporary Art	3

Code	Title	Hours
ART 133	Non-Western Art [+]	3
MCM 200	Film History [+]	3
MUS 103	Music Appreciation	3
MUS 104	Introduction to American Music [+]	3
MUS 106	Introduction to Jazz	3
MUS 120	Introduction to Music Literature	3
THE 111	Introduction to Theatre [+]	3
THE 121	Ethnic Traditions in American Theatre	3

[+] Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Interdisciplinary Studies

Code	Title	Hours
HUM 101	Ancient through the Medieval West [+]	3
HUM 102	Renaissance through the Modern West [+]	3
HUM 106	The Cultures of Asia [+]	3
HUM 107	The Cultures of Africa [+]	3
HUM 110	Women and Creativity [+]	3
LIT 112	Literature and Film	3

[+] Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Social and Behavioral Sciences

Minimum of 3 hours required from the category.

One 3 credit-hour course is required for graduation and must be from either the Humanities/Fine Arts or the Social Behavioral Sciences. An additional Social/Behavioral Science course may be required at the transfer institution.

Hours Required: 3

Code	Title	Hours
ANT 101	Introduction to Anthropology [+]	3
ANT 202	Cultural Anthropology [+]	3
ANT 205	Physical Anthropology	3
ANT 206	Archeology [+]	3
ECO 200	Introduction to Economics [+]	3
ECO 211	Microeconomics	3
ECO 212	Macroeconomics	3
GEG 100	Cultural Geography [+]	3
GEG 101	World Regional Geography [+]	3
GEG 103	The Developing World [+]	3
GEG 104	The Developed World [+]	3
GIS 100	Introduction to Geospatial Technologies	3
HED 202	Human Sexuality [+]	3
HST 111	American Experience to 1877	3
HST 112	American Experience Since 1877	3
HST 121	History of Mexico, Central and South America [+]	3
HST 141	History of Western Civilization to 1650	4
HST 142	History of Western Civilization Since 1650	4
HST 231	History of the Middle East to 1453	3
HST 232	History of the Middle East 1453 to Present	3

Code	Title	Hours
HST 241	History of China: Earliest Time through Ming Dynasty	3
HST 242	History of China: From the Ching Dynasty to Present	3
HST 243	Far East in the Modern World	3
HST 245	The World Since 1945	3
PSC 101	American Politics and Government	3
PSC 220	State and Local Government in the U.S.	3
PSC 250	Comparative Politics [+]	3
PSC 270	Global Politics [+]	3
PSC 280	Non-Western Comparative Politics [+]	3
PSY 101	Introduction to Psychology [+]	3
PSY 216	Child Psychology I	3
PSY 217	Adolescent Psychology	3
PSY 218	Adult Psychology	3
PSY 228	Psychology of Human Development	3
SOC 101	Introduction to Sociology [+]	3
SOC 120	Family in Contemporary Society [+]	3
SOC 205	Social Problems [+]	3
SOC 215	Introduction to Social Psychology [+]	3
SOC 230	Sociology of Sex and Gender [+]	3
SOC 235	Race and Ethnicity [+]	3

[+] Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Engineering

Specialty courses approved in consultation with the engineering department chair.

Hours Required: 16

Code	Title	Hours
CHM 122	General Chemistry II	5
CHM 204	Organic Chemistry I	5
CHM 205	Organic Chemistry II	5
CSC 122	Computer Science II	4
CSC 211	Introduction to C Programming and UNIX	4
CSC 214	Java Programming	4
CSC 216	Data Structures and Algorithm Analysis	4
CSC 217	Assembler Programming and Machine Organization	4
EGR 100	Introduction to Engineering	1
EGR 105	Problem-Solving with Matlab and Excel	1
EGR 110	Introduction to Electrical and Computer Engineering	4
EGR 120	Engineering Graphics I (CAD)	4
EGR 210	Analytical Mechanics - Statics	3
EGR 211	Analytical Mechanics - Dynamics	3
EGR 212	Mechanics of Solids	3
EGR 240	Thermodynamics	3
EGR 265	Circuit Analysis	4
EGR 295	Independent Study in Engineering	1-4
MTH 203	Linear Algebra	4

MTH 212	Differential Equations	3
MTH 220	Discrete Mathematics	3
PHY 203	General Physics III-Thermal and Quantum Physics	5

World Cultures and Diversity Requirement

One 3-credit hour course is required. Courses that fulfill this requirement may also be used to fulfill requirements the General Education category.

Select one course marked with a + from the above Groups.

Total Hours Required

Hours Required: 62

Associate in Fine Arts: Art Emphasis

Program website (https://www.harpercollege.edu/academics/arts/art/fine-arts-transfer.php)

Program Overview

These requirements apply to the Associate in Fine Arts-Art Emphasis degree.

These requirements apply to students who first enrolled for Fall 2025 or later. Students who first enrolled prior to Fall 2025 should obtain the appropriate sheet of requirements from a Student Development Center.

Completion of the Associate in Fine Arts-Art degree does not fulfill the requirements of the Illinois General Education core curriculum. After transfer, Associate in Fine Arts-Art students will need to complete the general education requirements of the institution to which they transfer.

Program Requirements

Communications

3 courses

Hours Required: 9

Code	Title	Hours
ENG 101	Composition I [1]	3
ENG 102	Composition II [1]	3
SPE 101	Fundamentals of Speech Communication	3

[1] A grade of C or better is required.

Mathematics

1 course.

Hours Required: 3

Code	Title	Hours
MTH 101	Quantitative Literacy	3
MTH 124	Finite Mathematics	3
MTH 131	Mathematics for Elementary Teaching II	4
MTH 134	Calculus for Business and Social Sciences	4
or MTH 200	Calculus I	
MTH 165	Elementary Statistics	4
or MTH 225	Business Statistics	
MTH 201	Calculus II	5
MTH 202	Calculus III	5
MTH 220	Discrete Mathematics	3

Physical and Life Sciences

2 courses with 1 course from the Life Sciences and 1 from the Physical Sciences. 1 course must be a lab science.

Hours Required: 7

Life Sciences

Code	Title	Hours
BIO 101	Biology Survey	3
BIO 103	Humans and the Environment	3
BIO 104	Environmental Laboratory Biology [1]	4
BIO 105	Heredity, Evolution and Society	3
BIO 110	Introduction to Biology and Society [1]	4
BIO 115	Fundamentals of Cellular Biology [1]	4
BIO 116	Fundamentals of Organismal Biology [1]	4
BIO 120	Plants and Society [1]	4
BIO 140	Animals and Society [1]	4

[1] Lab science course

Physical Sciences

Code	Title	Hours
AST 100	Astronomy Survey	3
AST 112	The Solar System [1]	4
AST 115	Stars and Galaxies [1]	4
CHM 100	Chemistry for the Health Sciences [1]	4
CHM 103	The Chemistry Connection [1]	4
CHM 105	Chemical World [1]	4
CHM 110	Fundamentals of Chemistry [1]	4
CHM 121	General Chemistry I [1]	5
ESC 100	Rocks and Minerals Survey	3
ESC 101	Earth Science Survey	3
ESC 110	Exploring the Earth and Universe [1]	4
ESC 111	Physical Geology [1]	4
ESC 112	Dinosaurs, Fossils and Planet Earth [1]	4
ESC 113	Environmental Geology [1]	4
ESC 121	Introduction to Meteorology [1]	4
GEG 111	Physical Geography	3
GEG 112	Physical Geography Laboratory [1]	1
PHY 100	Basic Concepts in Physics	3
PHY 110	Introduction to Physics [1]	4
PHY 112	Energy and Society [1]	4
PHY 121	Introductory Physics I [1]	5
PHY 201	General Physics I-Mechanics [1]	5

[1] Lab science course

Humanities

2 courses

Hours Required: 6

Code	Title	Hours
FRN 202	Intermediate French II	4
FRN 210	Introduction to French Literature	3
GER 202	Intermediate German II	4
GER 210	Introduction to German Literature [+]	3
HST 105	Great Ideas of World Civilizations	3
or HUM 105	Great Ideas of World Civilizations	
HUM 101	Ancient through the Medieval West [+]	3
HUM 102	Renaissance through the Modern West [+]	3
HUM 104	Introduction to Middle Eastern Civilizations [+]	3
HUM 106	The Cultures of Asia [+]	3
HUM 107	The Cultures of Africa [+]	3

HUM 110	Women and Creativity [+]	3
HUM 120	Classical Mythology	3
HUM 125	World Mythology [+]	3
JPN 202	Intermediate Japanese II	4
LIT 105	Poetry	3
LIT 112	Literature and Film	3
LIT 115	Fiction	3
LIT 208	Non-Western Literature [+]	3
LIT 210	Introduction to Shakespeare	3
LIT 219	Children's Literature	3
LIT 220	Japanese Literature in Translation [+]	3
LIT 221	American Literature, Colonial Days to Civil War	3
LIT 222	American Literature: Civil War to Present	3
LIT 223	Multicultural American Literature [+]	3
LIT 224	Women in Literature [+]	3
LIT 231	English Literature to 1800	3
LIT 232	English Literature 1800-1914	3
PHI 101	Critical Thinking	3
PHI 105	Introduction to Philosophy	3
PHI 115	Ethics	3
PHI 120	Social and Political Philosophy	3
PHI 160	Non-Western Philosophy [+]	3
PHI 205	Religions of the World [+]	3
PHI 215	Religion in America [+]	3
PHI 220	Philosophy of Religion	3
PHI 231	History of Philosophy--Ancient and Medieval	3
PHI 232	History of Philosophy-Modern	3
SGN 202	American Sign Language IV	3
SGN 210	American Sign Language: Cultural Perspective [+]	4
SPA 202	Intermediate Spanish II	4
SPA 210	Introduction to Spanish Literature [+]	3
THE 121	Ethnic Traditions in American Theatre	3

[+] Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Social and Behavioral Sciences

2 courses with courses selected from at least two departments.

Hours Required: 6

Code	Title	Hours
ANT 101	Introduction to Anthropology [+]	3
ANT 202	Cultural Anthropology [+]	3
ANT 205	Physical Anthropology	3
ANT 206	Archeology [+]	3
ECO 200	Introduction to Economics [+]	3
ECO 211	Microeconomics	3
ECO 212	Macroeconomics	3
GEG 100	Cultural Geography [+]	3
GEG 101	World Regional Geography [+]	3
GEG 103	The Developing World [+]	3
GEG 104	The Developed World [+]	3

GIS 100	Introduction to Geospatial Technologies	3
HED 202	Human Sexuality [+]	3
HST 111	American Experience to 1877	3
HST 112	American Experience Since 1877	3
HST 121	History of Mexico, Central and South America [+]	3
HST 141	History of Western Civilization to 1650	4
HST 142	History of Western Civilization Since 1650	4
HST 212	Recent American History, 1945-Present	3
HST 231	History of the Middle East to 1453	3
HST 232	History of the Middle East 1453 to Present	3
HST 241	History of China: Earliest Time through Ming Dynasty	3
HST 242	History of China: From the Ching Dynasty to Present	3
HST 243	Far East in the Modern World	3
HST 245	The World Since 1945	3
PSC 101	American Politics and Government	3
PSC 220	State and Local Government in the U.S.	3
PSC 250	Comparative Politics [+]	3
PSC 270	Global Politics [+]	3
PSC 280	Non-Western Comparative Politics [+]	3
PSY 101	Introduction to Psychology [+]	3
PSY 216	Child Psychology I	3
PSY 217	Adolescent Psychology	3
PSY 218	Adult Psychology	3
PSY 228	Psychology of Human Development	3
SOC 101	Introduction to Sociology [+]	3
SOC 120	Family in Contemporary Society [+]	3
SOC 205	Social Problems [+]	3
SOC 215	Introduction to Social Psychology [+]	3
SOC 230	Sociology of Sex and Gender [+]	3
SOC 235	Race and Ethnicity [+]	3

[+] Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Total General Education

No more than two GEG and two HST courses (except HST 105) may be used to fulfill the General Education requirements.

Hours Required: 31

Core Courses

8 courses

A portfolio review is required with an art advisor after the completion of the first two semesters of art course requirements before starting any other art courses. The Art Department strongly recommends that Associate in Fine Arts-Art candidates also take two semesters of ART 100 for its professional career content.

Hours Required: 24

Code	Title	Hours
ART 110	Drawing I	3
ART 111	Drawing II	3

ART 121	Design I	3
ART 122	Design II	3
ART 130	Ancient and Medieval Art	3
ART 131	Gothic through Romantic Art	3
ART 132	Modern and Contemporary Art	3
ART 133	Non-Western Art [+]	3
ART 225	Figure Drawing Studio	3

Media Specific Courses

Hours Required: 9

Code	Title	Hours
ART 206	Printmaking Studio	3
ART 241	Digital Art and Animation Studio	3
ART 250	Introduction to Photographic Art	3
ART 251	Intermediate Photographic Art	3
ART 261	Painting Studio	3
ART 291	Ceramics Studio	3
ART 296	Sculpture Studio	3

World Cultures and Diversity Requirement

One 3-credit hour course is required. Courses that fulfill this requirement may also be used to fulfill requirements in the General Education category.

Select one course marked with a + from the above Groups.

Total Hours Required

Hours Required: 64

Associate in Fine Arts: Music Emphasis

Program Overview

These requirements apply to the Associate in Fine Arts-Music Emphasis degree.

These requirements apply to students who first enrolled for Fall 2025 or later. Students who first enrolled prior to Fall 2025 should obtain the appropriate sheet of requirements from a Student Development Center.

Completion of the Associate in Fine Arts-Music degree does not fulfill the requirements of the Illinois General Education core curriculum. After transfer, Associate in Fine Arts-Music students will need to complete the general education requirements of the institution to which they transfer.

Program Requirements

Communications

3 courses

Hours Required: 9

Code	Title	Hours
ENG 101	Composition I [1]	3
ENG 102	Composition II [1]	3
SPE 101	Fundamentals of Speech Communication	3

[1] A grade of C or better is required.

Mathematics

1 course.

Hours Required: 3

Code	Title	Hours
MTH 101	Quantitative Literacy [1]	3
MTH 124	Finite Mathematics [1]	3
MTH 131	Mathematics for Elementary Teaching II	4
MTH 134	Calculus for Business and Social Sciences [1]	4
or MTH 200	Calculus I	
MTH 165	Elementary Statistics	4
or MTH 225	Business Statistics	
MTH 201	Calculus II	5
MTH 202	Calculus III	5
MTH 220	Discrete Mathematics	3

[1] MTH 101, MTH 124, or MTH 134 preferred.

Physical and Life Sciences

2 courses with 1 course from the Life Sciences and 1 from the Physical Sciences. 1 course must be a lab science.

Hours Required: 7

Life Sciences

Code	Title	Hours
BIO 101	Biology Survey	3
BIO 103	Humans and the Environment	3
BIO 104	Environmental Laboratory Biology [1]	4
BIO 105	Heredity, Evolution and Society	3
BIO 110	Introduction to Biology and Society [1]	4
BIO 115	Fundamentals of Cellular Biology [1]	4
BIO 116	Fundamentals of Organismal Biology [1]	4
BIO 120	Plants and Society [1]	4
BIO 140	Animals and Society [1]	4

[1] Lab science course

Physical Sciences

Code	Title	Hours
AST 100	Astronomy Survey	3
AST 112	The Solar System [1]	4
AST 115	Stars and Galaxies [1]	4
CHM 100	Chemistry for the Health Sciences [1]	4
CHM 103	The Chemistry Connection [1]	4
CHM 105	Chemical World [1]	4
CHM 110	Fundamentals of Chemistry [1]	4
CHM 121	General Chemistry I [1]	5
ESC 100	Rocks and Minerals Survey	3
ESC 101	Earth Science Survey	3
ESC 110	Exploring the Earth and Universe [1]	4
ESC 111	Physical Geology [1]	4
ESC 112	Dinosaurs, Fossils and Planet Earth [1]	4
ESC 113	Environmental Geology [1]	4
ESC 121	Introduction to Meteorology [1]	4
GEG 111	Physical Geography	3
GEG 112	Physical Geography Laboratory [1]	1
PHY 100	Basic Concepts in Physics	3
PHY 110	Introduction to Physics [1]	4
PHY 112	Energy and Society [1]	4
PHY 121	Introductory Physics I [1]	5
PHY 201	General Physics I-Mechanics [1]	5

[1] Lab science course

Humanities and Fine Arts

3 courses with at least one course from Humanities and one course from Fine Arts.

Hours Required: 9

Humanities

Code	Title	Hours
FRN 202	Intermediate French II	4
FRN 210	Introduction to French Literature	3
GER 202	Intermediate German II	4
GER 210	Introduction to German Literature [+]	3
HST 105	Great Ideas of World Civilizations	3

or HUM 105	Great Ideas of World Civilizations	
HUM 101	Ancient through the Medieval West [+]	3
HUM 102	Renaissance through the Modern West [+]	3
HUM 104	Introduction to Middle Eastern Civilizations [+]	3
HUM 106	The Cultures of Asia [+]	3
HUM 107	The Cultures of Africa [+]	3
HUM 110	Women and Creativity [+]	3
HUM 120	Classical Mythology	3
HUM 125	World Mythology [+]	3
JPN 202	Intermediate Japanese II	4
LIT 105	Poetry	3
LIT 112	Literature and Film	3
LIT 115	Fiction	3
LIT 208	Non-Western Literature [+]	3
LIT 210	Introduction to Shakespeare	3
LIT 219	Children's Literature	3
LIT 220	Japanese Literature in Translation [+]	3
LIT 221	American Literature, Colonial Days to Civil War	3
LIT 222	American Literature: Civil War to Present	3
LIT 223	Multicultural American Literature [+]	3
LIT 224	Women in Literature [+]	3
LIT 231	English Literature to 1800	3
LIT 232	English Literature 1800-1914	3
PHI 101	Critical Thinking	3
PHI 105	Introduction to Philosophy	3
PHI 115	Ethics	3
PHI 120	Social and Political Philosophy	3
PHI 160	Non-Western Philosophy [+]	3
PHI 205	Religions of the World [+]	3
PHI 215	Religion in America [+]	3
PHI 220	Philosophy of Religion	3
PHI 231	History of Philosophy--Ancient and Medieval	3
PHI 232	History of Philosophy-Modern	3
SGN 202	American Sign Language IV	3
SGN 210	American Sign Language: Cultural Perspective [+]	4
SPA 202	Intermediate Spanish II	4
SPA 210	Introduction to Spanish Literature [+]	3
THE 121	Ethnic Traditions in American Theatre	3

+ Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Fine Arts

Code	Title	Hours
MUS 103	Music Appreciation	3
MUS 104	Introduction to American Music [+]	3
MUS 106	Introduction to Jazz	3
MUS 107	Introduction to Music in Theatre	3
MUS 108	Introduction to World Music [+]	3
MUS 120	Introduction to Music Literature	3

Social and Behavioral Sciences

1 course.

Hours Required: 3

Code	Title	Hours
ANT 101	Introduction to Anthropology [+]	3
ANT 202	Cultural Anthropology [+]	3
ANT 205	Physical Anthropology	3
ANT 206	Archeology [+]	3
ECO 200	Introduction to Economics [+]	3
ECO 211	Microeconomics	3
ECO 212	Macroeconomics	3
GEG 100	Cultural Geography [+]	3
GEG 101	World Regional Geography [+]	3
GEG 103	The Developing World [+]	3
GEG 104	The Developed World [+]	3
GIS 100	Introduction to Geospatial Technologies	3
HED 202	Human Sexuality [+]	3
HST 111	American Experience to 1877	3
HST 112	American Experience Since 1877	3
HST 121	History of Mexico, Central and South America [+]	3
HST 141	History of Western Civilization to 1650	4
HST 142	History of Western Civilization Since 1650	4
HST 212	Recent American History, 1945-Present	3
HST 231	History of the Middle East to 1453	3
HST 232	History of the Middle East 1453 to Present	3
HST 241	History of China: Earliest Time through Ming Dynasty	3
HST 242	History of China: From the Ching Dynasty to Present	3
HST 243	Far East in the Modern World	3
HST 245	The World Since 1945	3
PSC 101	American Politics and Government	3
PSC 220	State and Local Government in the U.S.	3
PSC 250	Comparative Politics [+]	3
PSC 270	Global Politics [+]	3
PSC 280	Non-Western Comparative Politics [+]	3
PSY 101	Introduction to Psychology [+]	3
PSY 216	Child Psychology I	3
PSY 217	Adolescent Psychology	3
PSY 218	Adult Psychology	3
PSY 228	Psychology of Human Development	3
SOC 101	Introduction to Sociology [+]	3
SOC 120	Family in Contemporary Society [+]	3
SOC 205	Social Problems [+]	3
SOC 215	Introduction to Social Psychology [+]	3
SOC 230	Sociology of Sex and Gender [+]	3
SOC 235	Race and Ethnicity [+]	3

+ Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Total General Education

No more than two GEG and two HST courses (except HST 105) may be used to fulfill the General Education requirements.

Hours Required: 31

Core Courses

Hours Required: 36

Music Theory

12 credit hours required

Code	Title	Hours
MUS 111	Theory of Music I	3
MUS 112	Theory of Music II	3
MUS 211	Theory of Music III	3
MUS 212	Theory of Music IV	3

Keyboard Skills

8 credit hours required

Code	Title	Hours
MUS 165	Class Piano I [1]	2
MUS 166	Class Piano II [1]	2
MUS 265	Class Piano III [1]	2
MUS 266	Class Piano IV	2

[1] All music majors must demonstrate piano proficiency: MUS 165, MUS 166 and MUS 265 may be passed by proficiency exam.

Aural Skills

4 credit hours required

Code	Title	Hours
MUS 115	Aural Skills I	1
MUS 116	Aural Skills II	1
MUS 215	Aural Skills III	1
MUS 216	Aural Skills IV	1

Ensemble

4 credit hours required

Code	Title	Hours
MUS 130	Choir	1
MUS 140	Band	1
MUS 145	Ensembles	1
MUS 150	Orchestra	1

Applied Instruction

8 credit hours required

Code	Title	Hours
MUS 180	Flute and Piccolo	1
MUS 181	Oboe and English Horn	1
MUS 182	Clarinet	1
MUS 183	Bassoon and Contra Bassoon	1
MUS 184	Saxophone	1
MUS 185	French Horn	1
MUS 186	Trumpet	1
MUS 187	Trombone	1
MUS 188	Baritone	1
MUS 189	Tuba	1
MUS 190	Drum Set	1
MUS 191	Violin	1
MUS 192	Viola	1
MUS 193	Cello	1
MUS 194	String Bass	1
MUS 195	Harp	1
MUS 196	Piano	1
MUS 198	Voice	1
MUS 199	Guitar	1
MUS 279	Private Lessons in Composition	2
MUS 280	Flute and Piccolo	2
MUS 281	Oboe and English Horn	2
MUS 282	Clarinet	2
MUS 283	Bassoon and Contra Bassoon	2
MUS 284	Saxophone	2
MUS 285	French Horn	2
MUS 286	Trumpet	2
MUS 287	Trombone	2
MUS 288	Baritone	2
MUS 289	Tuba	2
MUS 290	Drum Set	2
MUS 291	Violin	2
MUS 292	Viola	2
MUS 293	Cello	2
MUS 294	String Bass	2
MUS 295	Harp	2
MUS 296	Piano	2
MUS 298	Voice	2
MUS 299	Guitar	2

World Cultures and Diversity Requirement

One 3-credit hour course is required. Courses that fulfill this requirement may also be used to fulfill requirements in the General Education category.

Select one course marked with a + from the above Groups.

Total Hours Required

Hours Required: 67

Associate in Fine Arts: Music Production Emphasis

Program Overview

These requirements apply to the Associate in Fine Arts-Music Production Emphasis degree for students who first enrolled for Fall 2025 or later. Students who first enrolled prior to Fall 2025 should obtain the appropriate sheet of requirements from a Student Development Center.

Completion of the Associate in Fine Arts-Music Production degree does not fulfill the requirements of the Illinois General Education core curriculum. After transfer, Associate in Fine Arts-Music Production students will need to complete the general education requirements of the institution to which they transfer. Completion of this option alone does not guarantee admission either to the baccalaureate program or to upper-division or specialty music courses. Students may be required to demonstrate skill level through auditions, placement testing, and/or portfolio review at the institution to which they transfer. In some colleges and universities, a baccalaureate degree may also require competency in a foreign language.

Program Requirements

Communications

3 courses

Hours Required: 9

Code	Title	Hours
ENG 101	Composition I [1]	3
ENG 102	Composition II [1]	3
SPE 101	Fundamentals of Speech Communication	3

[1] A grade of C or better is required.

Mathematics

1 course

Hours Required: 3

Code	Title	Hours
MTH 101	Quantitative Literacy [1]	3
MTH 124	Finite Mathematics [1]	3
MTH 131	Mathematics for Elementary Teaching II	4
MTH 134	Calculus for Business and Social Sciences [1]	4
or MTH 200	Calculus I	
MTH 165	Elementary Statistics	4
or MTH 225	Business Statistics	
MTH 201	Calculus II	5
MTH 202	Calculus III	5
MTH 220	Discrete Mathematics	3

[1] MTH 101, MTH 124, or MTH 134 preferred.

Physical and Life Sciences

2 courses with 1 course from the Life Sciences and 1 from the Physical Sciences. 1 course must be a lab science.

Hours Required: 7

LIFE SCIENCES

Code	Title	Hours
BIO 101	Biology Survey	3
BIO 103	Humans and the Environment	3
BIO 104	Environmental Laboratory Biology [1]	4
BIO 105	Heredity, Evolution and Society	3
BIO 110	Introduction to Biology and Society [1]	4
BIO 115	Fundamentals of Cellular Biology [1]	4
BIO 116	Fundamentals of Organismal Biology [1]	4
BIO 120	Plants and Society [1]	4
BIO 140	Animals and Society [1]	4

[1] Lab science course

PHYSICAL SCIENCES

Code	Title	Hours
AST 100	Astronomy Survey	3
AST 112	The Solar System [1]	4
AST 115	Stars and Galaxies [1]	4
CHM 100	Chemistry for the Health Sciences [1]	4
CHM 103	The Chemistry Connection [1]	4
CHM 105	Chemical World [1]	4
CHM 110	Fundamentals of Chemistry [1]	4
CHM 121	General Chemistry I [1]	5
ESC 100	Rocks and Minerals Survey	3
ESC 101	Earth Science Survey	3
ESC 110	Exploring the Earth and Universe [1]	4
ESC 111	Physical Geology [1]	4
ESC 112	Dinosaurs, Fossils and Planet Earth [1]	4
ESC 113	Environmental Geology [1]	4
ESC 121	Introduction to Meteorology [1]	4
GEG 111	Physical Geography	3
GEG 112	Physical Geography Laboratory [1]	1
PHY 100	Basic Concepts in Physics	3
PHY 110	Introduction to Physics [1]	4
PHY 121	Introductory Physics I [1]	5
PHY 201	General Physics I-Mechanics [1]	5

[1] Lab science course

Humanities and Fine Arts

MUS 104 and 110 are required and one additional 3 credit-hour Humanities course is required.

Hours Required: 9

Fine Arts

Code	Title	Hours
MUS 104	Introduction to American Music [+]	3
MUS 110	Div Traditions in American Music: Hip-Hop	3

+ This course meets the World Cultures and Diversity graduation requirement.

Humanities

Code	Title	Hours
FRN 202	Intermediate French II	4
FRN 210	Introduction to French Literature	3
GER 202	Intermediate German II	4
GER 210	Introduction to German Literature	3
HST 105	Great Ideas of World Civilizations	3
or HUM 105	Great Ideas of World Civilizations	
HUM 101	Ancient through the Medieval West	3
HUM 102	Renaissance through the Modern West	3
HUM 104	Introduction to Middle Eastern Civilizations	3
HUM 106	The Cultures of Asia	3
HUM 107	The Cultures of Africa	3
HUM 110	Women and Creativity	3
HUM 120	Classical Mythology	3
HUM 125	World Mythology	3
JPN 202	Intermediate Japanese II	4
LIT 105	Poetry	3
LIT 112	Literature and Film	3
LIT 115	Fiction	3
LIT 208	Non-Western Literature	3
LIT 210	Introduction to Shakespeare	3
LIT 219	Children's Literature	3
LIT 220	Japanese Literature in Translation	3
LIT 221	American Literature, Colonial Days to Civil War	3
LIT 222	American Literature: Civil War to Present	3
LIT 223	Multicultural American Literature	3
LIT 224	Women in Literature	3
LIT 231	English Literature to 1800	3
LIT 232	English Literature 1800-1914	3
PHI 101	Critical Thinking	3
PHI 105	Introduction to Philosophy	3
PHI 115	Ethics	3
PHI 120	Social and Political Philosophy	3
PHI 160	Non-Western Philosophy	3
PHI 205	Religions of the World	3
PHI 215	Religion in America	3
PHI 220	Philosophy of Religion	3
PHI 231	History of Philosophy--Ancient and Medieval	3
PHI 232	History of Philosophy-Modern	3
SGN 202	American Sign Language IV	3
SGN 210	American Sign Language: Cultural Perspective	4
SPA 202	Intermediate Spanish II	4
SPA 210	Introduction to Spanish Literature	3
THE 121	Ethnic Traditions in American Theatre	3

Social and Behavioral Sciences

1 course

Hours Required: 3

Code	Title	Hours
ANT 101	Introduction to Anthropology	3
ANT 202	Cultural Anthropology	3
ANT 205	Physical Anthropology	3
ANT 206	Archeology	3
ECO 200	Introduction to Economics	3
ECO 211	Microeconomics	3
ECO 212	Macroeconomics	3
GEG 100	Cultural Geography	3
GEG 101	World Regional Geography	3
GEG 103	The Developing World	3
GEG 104	The Developed World	3
GEG 150		3
HED 202	Human Sexuality	3
HST 111	American Experience to 1877	3
HST 112	American Experience Since 1877	3
HST 121	History of Mexico, Central and South America	3
HST 141	History of Western Civilization to 1650	4
HST 142	History of Western Civilization Since 1650	4
HST 212	Recent American History, 1945-Present	3
HST 231	History of the Middle East to 1453	3
HST 232	History of the Middle East 1453 to Present	3
HST 241	History of China: Earliest Time through Ming Dynasty	3
HST 242	History of China: From the Ching Dynasty to Present	3
HST 243	Far East in the Modern World	3
HST 245	The World Since 1945	3
PSC 101	American Politics and Government	3
PSC 220	State and Local Government in the U.S.	3
PSC 250	Comparative Politics	3
PSC 270	Global Politics	3
PSC 280	Non-Western Comparative Politics	3
PSY 101	Introduction to Psychology	3
PSY 216	Child Psychology I	3
PSY 217	Adolescent Psychology	3
PSY 218	Adult Psychology	3
PSY 228	Psychology of Human Development	3
SOC 101	Introduction to Sociology	3
SOC 120	Family in Contemporary Society	3
SOC 205	Social Problems	3
SOC 215	Introduction to Social Psychology	3
SOC 230	Sociology of Sex and Gender	3
SOC 235	Race and Ethnicity	3

Total General Education

No more than two GEG and two HST courses (except HST 105) may be used to fulfill the General Education requirements.

Hours Required: 31

Core Courses
Hours Required: 36

Core music courses
14 credit hours required

Code	Title	Hours
MUS 100	Introduction to Music Careers	1
MUS 102	Introduction to Electronic/Computer Music	3
MUS 201	Fundamentals of Audio Technology	3
MUS 202	Recording Techniques	3
MUS 203	Mixing and Mastering Techniques	3
MUS 275	Audio/Visual Arts Technology Internship	1-3

Music Mechanics
18 credit hours required

Code	Title	Hours
MUS 111	Theory of Music I	3
MUS 112	Theory of Music II	3
MUS 115	Aural Skills I	1
MUS 116	Aural Skills II	1
MUS 165	Class Piano I [1]	2
MUS 166	Class Piano II [1]	2
MUS 211	Theory of Music III	3
MUS 215	Aural Skills III	1
MUS 265	Class Piano III [1]	2
or MUS 167	Class Guitar	

` All music majors must demonstrate piano proficiency: MUS 165, 166, and 265 may be passed by proficiency exam.

applied instruction
4 credit hours required

Code	Title	Hours
MUS 180	Flute and Piccolo	1
MUS 181	Oboe and English Horn	1
MUS 182	Clarinet	1
MUS 183	Bassoon and Contra Bassoon	1
MUS 184	Saxophone	1
MUS 185	French Horn	1
MUS 186	Trumpet	1
MUS 187	Trombone	1
MUS 188	Baritone	1
MUS 189	Tuba	1
MUS 190	Drum Set	1
MUS 191	Violin	1
MUS 192	Viola	1
MUS 193	Cello	1
MUS 194	String Bass	1
MUS 195	Harp	1
MUS 196	Piano	1
MUS 198	Voice	1
MUS 199	Guitar	1

Code	Title	Hours
MUS 279	Private Lessons in Composition	2
MUS 280	Flute and Piccolo	2
MUS 281	Oboe and English Horn	2
MUS 282	Clarinet	2
MUS 283	Bassoon and Contra Bassoon	2
MUS 284	Saxophone	2
MUS 285	French Horn	2
MUS 286	Trumpet	2
MUS 287	Trombone	2
MUS 288	Baritone	2
MUS 289	Tuba	2
MUS 290	Drum Set	2
MUS 291	Violin	2
MUS 292	Viola	2
MUS 293	Cello	2
MUS 294	String Bass	2
MUS 295	Harp	2
MUS 296	Piano	2
MUS 298	Voice	2
MUS 275	Audio/Visual Arts Technology Internship	1-3
MUS 299	Guitar	2

World Cultures and Diversity Requirement
MUS 104 meets the World Cultures and Diversity graduation requirement.

Total Hours Required
Hours required: 67

Associate in General Studies

Program Overview

These requirements apply to students who first enrolled for Fall 2025 or later. Students who enrolled prior to Fall 2025 have the option of upgrading their degree plan to access the AGS degree option.

The Associate in General Studies degree is a flexible, individually designed option for those individuals who do not intend to transfer but who can benefit from having earned a degree, whether for career purposes or for personal satisfaction. Students should be aware that transfer options for the degree as a whole are limited. Students are strongly encouraged to meet with an academic advisor to make course selections and to learn about possible transfer options.

Program Requirements

Communications

Hours Required: 6

Code	Title	Hours
ENG 101	Composition I	3
ENG 102	Composition II	3
ENG 103	Technical and Report Writing	3
ENG 130	Business Writing	3
MCM 130	Introduction to Journalism	3
SPE 101	Fundamentals of Speech Communication	3

Mathematics

Hours Required: 3

Code	Title	Hours
MGT 150	Business Math	3
MTH 101	Quantitative Literacy	3
MTH 103	College Algebra	3
MTH 124	Finite Mathematics	3
MTH 130	Mathematics for Elementary Teaching I	4
MTH 131	Mathematics for Elementary Teaching II	4
MTH 134	Calculus for Business and Social Sciences	4
MTH 140	Precalculus	5
MTH 165	Elementary Statistics	4
or MTH 225	Business Statistics	
MTH 200	Calculus I	5
MTH 201	Calculus II	5
MTH 202	Calculus III	5
MTH 203	Linear Algebra	4
MTH 212	Differential Equations	3
MTH 220	Discrete Mathematics	3

Physical and Life Sciences

Hours Required: 3

Code	Title	Hours
AST 100	Astronomy Survey	3
AST 112	The Solar System	4
AST 115	Stars and Galaxies	4
BIO 101	Biology Survey	3
BIO 103	Humans and the Environment	3
BIO 104	Environmental Laboratory Biology	4
BIO 105	Heredity, Evolution and Society	3
BIO 110	Introduction to Biology and Society	4
BIO 115	Fundamentals of Cellular Biology	4
BIO 116	Fundamentals of Organismal Biology	4
BIO 120	Plants and Society	4
BIO 135	Introduction to Human Anatomy and Physiology	4
BIO 136	Introduction to Human Disease	3
BIO 140	Animals and Society	4
BIO 230	Microbiology	4
BIO 260	Human Anatomy	4
BIO 261	Human Physiology	4
CHM 100	Chemistry for the Health Sciences	4
CHM 103	The Chemistry Connection	4
CHM 105	Chemical World	4
CHM 110	Fundamentals of Chemistry	4
CHM 121	General Chemistry I	5
CHM 122	General Chemistry II	5
CHM 201	Basic Organic Chemistry	4
CHM 204	Organic Chemistry I	5
CHM 205	Organic Chemistry II	5
CHM 210	Analytical Chemistry	5
CHM 220	Biochemistry	4
ESC 100	Rocks and Minerals Survey	3
ESC 101	Earth Science Survey	3
ESC 110	Exploring the Earth and Universe	4
ESC 111	Physical Geology	4
ESC 112	Dinosaurs, Fossils and Planet Earth	4
ESC 113	Environmental Geology	4
ESC 121	Introduction to Meteorology	4
GEG 111	Physical Geography	3
GEG 112	Physical Geography Laboratory	1
NTR 101	Fundamentals of Nutrition	3
PHY 100	Basic Concepts in Physics	3
PHY 110	Introduction to Physics	4
PHY 112	Energy and Society	4
PHY 121	Introductory Physics I	5
PHY 122	Introductory Physics II	5
PHY 201	General Physics I-Mechanics	5
PHY 202	General Physics II-Electricity and Magnetism	5
PHY 203	General Physics III-Thermal and Quantum Physics	5

Humanities and Fine Arts

Hours Required: 6

Code	Title	Hours
ART 105	Introduction to Visual Art	3
ART 110	Drawing I	3
ART 111	Drawing II	3
ART 114	Introduction to Film	3
ART 121	Design I	3
ART 122	Design II	3

ART 130	Ancient and Medieval Art	3	LIT 223	Multicultural American Literature [+]	3
ART 131	Gothic through Romantic Art	3	LIT 224	Women in Literature [+]	3
ART 132	Modern and Contemporary Art	3	LIT 231	English Literature to 1800	3
ART 133	Non-Western Art [+]	3	LIT 232	English Literature 1800-1914	3
ART 206	Printmaking Studio	3	LIT 241	20th Century British and American Literature	3
ART 225	Figure Drawing Studio	3	LIT 250	Topics in Literature	1-3
ART 241	Digital Art and Animation Studio	3	LNG 105	Introduction to Language and Linguistics	3
ART 250	Introduction to Photographic Art	3	MCM 150	Social Media Management and Measurement	3
ART 261	Painting Studio	3	MCM 156	Audio Production I	3
ART 291	Ceramics Studio	3	MCM 200	Film History [+]	3
ART 296	Sculpture Studio	3	MCM 205	Multi-Platform Photojournalism	3
ENG 230	Topics in English	1-3	MCM 210	Video Editing and Video Post-Production	3
FRN 101	Elementary French I	4	MCM 218	Broadcast Graphics	3
FRN 102	Elementary French II	4	MUS 101	Fundamentals of Music Theory	3
FRN 201	Intermediate French I	4	MUS 102	Introduction to Electronic/Computer Music	3
FRN 202	Intermediate French II	4	MUS 103	Music Appreciation	3
FRN 205	French Conversation	3	MUS 104	Introduction to American Music [+]	3
FRN 210	Introduction to French Literature	3	MUS 106	Introduction to Jazz	3
GER 101	Elementary German I	4	MUS 107	Introduction to Music in Theatre	3
GER 102	Elementary German II	4	MUS 108	Introduction to World Music [+]	3
GER 201	Intermediate German I	4	MUS 120	Introduction to Music Literature	3
GER 202	Intermediate German II	4	MUS 130	Choir	1
GER 205	German Conversation [+]	3	MUS 140	Band	1
GER 210	Introduction to German Literature [+]	3	MUS 145	Ensembles	1
GER 230	German Civilization and Culture [+]	3	MUS 150	Orchestra	1
HST 105	Great Ideas of World Civilizations	3	MUS 165	Class Piano I	2
or HUM 105	Great Ideas of World Civilizations		MUS 166	Class Piano II	2
HUM 101	Ancient through the Medieval West [+]	3	MUS 167	Class Guitar	2
HUM 102	Renaissance through the Modern West [+]	3	MUS 169	Class Voice	2
HUM 104	Introduction to Middle Eastern Civilizations [+]	3	MUS 180	Flute and Piccolo	1
HUM 106	The Cultures of Asia [+]	3	MUS 181	Oboe and English Horn	1
HUM 107	The Cultures of Africa [+]	3	MUS 182	Clarinet	1
HUM 110	Women and Creativity [+]	3	MUS 183	Bassoon and Contra Bassoon	1
HUM 115	International and Regional Studies in Humanities	1-4	MUS 184	Saxophone	1
HUM 120	Classical Mythology	3	MUS 185	French Horn	1
HUM 125	World Mythology [+]	3	MUS 186	Trumpet	1
JPN 101	Elementary Japanese I	4	MUS 187	Trombone	1
JPN 102	Elementary Japanese II	4	MUS 188	Baritone	1
JPN 201	Intermediate Japanese I	4	MUS 189	Tuba	1
JPN 202	Intermediate Japanese II	4	MUS 190	Drum Set	1
JPN 205	Japanese Intensive Oral Practice	3	MUS 191	Violin	1
LIT 105	Poetry	3	MUS 192	Viola	1
LIT 112	Literature and Film	3	MUS 193	Cello	1
LIT 115	Fiction	3	MUS 194	String Bass	1
LIT 208	Non-Western Literature [+]	3	MUS 195	Harp	1
LIT 210	Introduction to Shakespeare	3	MUS 196	Piano	1
LIT 216	Science Fiction	3	MUS 198	Voice	1
LIT 217	Crime Literature	3	MUS 199	Guitar	1
LIT 219	Children's Literature	3	MUS 279	Private Lessons in Composition	2
LIT 220	Japanese Literature in Translation [+]	3	PHI 101	Critical Thinking	3
LIT 221	American Literature, Colonial Days to Civil War	3	PHI 102	Symbolic Logic	3
LIT 222	American Literature: Civil War to Present	3	PHI 105	Introduction to Philosophy	3

PHI 115	Ethics	3
PHI 120	Social and Political Philosophy	3
PHI 150	Business Ethics	3
PHI 160	Non-Western Philosophy [+]	3
PHI 170	Environmental Ethics	3
PHI 180	Biomedical Ethics	3
PHI 190	Philosophy and Gender [+]	3
PHI 205	Religions of the World [+]	3
PHI 215	Religion in America [+]	3
PHI 220	Philosophy of Religion	3
PHI 231	History of Philosophy--Ancient and Medieval	3
PHI 232	History of Philosophy-Modern	3
SGN 101	American Sign Language I	4
SGN 102	American Sign Language II	4
SGN 201	American Sign Language III	4
SGN 202	American Sign Language IV	3
SGN 205	American Sign Language V	3
SGN 210	American Sign Language: Cultural Perspective [+]	4
SGN 212	Introduction to American Sign Language Literature	3
SPA 101	Elementary Spanish I	4
SPA 102	Elementary Spanish II	4
SPA 112	Heritage Spanish I	4
SPA 113	Heritage Spanish II	4
SPA 121	Spanish for Law Enforcement Officers	3
SPA 122	Spanish for Healthcare Professionals	3
SPA 201	Intermediate Spanish I	4
SPA 202	Intermediate Spanish II	4
SPA 205	Spanish Conversation [+]	3
SPA 210	Introduction to Spanish Literature [+]	3
SPE 107	Oral Interpretation	3
THE 111	Introduction to Theatre [+]	3
THE 121	Ethnic Traditions in American Theatre	3
THE 212	Acting I	3

[+] Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour is required for graduation.

Social and Behavioral Sciences

Hours Required: 6

Code	Title	Hours
ANT 101	Introduction to Anthropology [+]	3
ANT 202	Cultural Anthropology [+]	3
ANT 205	Physical Anthropology	3
ANT 206	Archeology [+]	3
ANT 215	Introduction to Forensic Anthropology	3
ANT 220	Topics in Anthropology	1-6
ECO 115	Consumer Economics	3
ECO 200	Introduction to Economics [+]	3
ECO 211	Microeconomics	3
ECO 212	Macroeconomics	3
GEG 100	Cultural Geography [+]	3
GEG 101	World Regional Geography [+]	3

GEG 103	The Developing World [+]	3
GEG 104	The Developed World [+]	3
GIS 100	Introduction to Geospatial Technologies	3
HED 202	Human Sexuality [+]	3
HST 111	American Experience to 1877	3
HST 112	American Experience Since 1877	3
HST 121	History of Mexico, Central and South America [+]	3
HST 141	History of Western Civilization to 1650	4
HST 142	History of Western Civilization Since 1650	4
HST 151	History of England: Norman Conquest to 1600	3
HST 152	History of England: 1600 to Present	3
HST 153	British Culture and Society	3
HST 202	Topics in History	1-3
HST 210	Women: The American Experience [+]	3
HST 212	Recent American History, 1945-Present	3
HST 214	African-American History [+]	3
HST 219	Illinois and Local History	3
HST 231	History of the Middle East to 1453	3
HST 232	History of the Middle East 1453 to Present	3
HST 241	History of China: Earliest Time through Ming Dynasty	3
HST 242	History of China: From the Ching Dynasty to Present	3
HST 243	Far East in the Modern World	3
HST 245	The World Since 1945	3
HST 261	American Civil War 1848-1865	3
HST 270	History of Rome	3
HST 281	World War I	3
HST 282	World War II	3
LNG 205	Language and Culture [+]	3
PSC 101	American Politics and Government	3
PSC 220	State and Local Government in the U.S.	3
PSC 250	Comparative Politics [+]	3
PSC 270	Global Politics [+]	3
PSC 280	Non-Western Comparative Politics [+]	3
PSY 101	Introduction to Psychology [+]	3
PSY 107	Humanistic Psychology:Personal Growth	3
PSY 108	Topics in Psychology	2-3
PSY 210	Introduction to Research in Psychology	3
PSY 216	Child Psychology I	3
PSY 217	Adolescent Psychology	3
PSY 218	Adult Psychology	3
PSY 220	Biological Basis of Behavior	3
PSY 225	Theories of Personality	3
PSY 228	Psychology of Human Development	3
PSY 230	Abnormal Psychology	3
PSY 245	Industrial/Organizational Psychology	3
PSY 251	African American Psychology [+]	3
SOC 101	Introduction to Sociology [+]	3
SOC 120	Family in Contemporary Society [+]	3
SOC 205	Social Problems [+]	3
SOC 215	Introduction to Social Psychology [+]	3

SOC 220	Topics in Social Science	1-6
SOC 230	Sociology of Sex and Gender [+]	3
SOC 235	Race and Ethnicity [+]	3

+ Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Total General Education

Hours Required: 24

Liberal Studies, Certificates, or Elective Coursework

Hours Required: 36

Courses must be selected from:

- Additional credit hours in one or more departments included in the above groups. This includes courses not designated as meeting general education requirements in these departments.
- One or more certificates may be included as part of these credit hours.
- Any 100 or 200 level elective courses in any discipline that fit specific educational goals of an individual student. (IDS 290 is limited to 4 credit hours total.)

World Cultures and Diversity Requirement

One 3-credit hour course is required. Some courses that fulfill this requirement may also be used to fulfill requirements in Humanities or Social and Behavioral Sciences.

Select one course marked with a + from the above Groups.

Total Hours Required

Hours Required: 60

Sample Transfer Plans

Art: Transfer Plan (AA)

Program website (https://www.harpercollege.edu/academics/arts/art/art-transfer.php)

Program Overview

This sample transfer planning guide meets the requirements of the Associate in Arts degree and follows the Illinois Articulation Initiative art baccalaureate major recommendations. Students choosing to follow this sample plan need to choose the major of Associate in Arts if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

Program Requirements

Course	Title	Hours
First Semester		
ART 110	Drawing I	3
ART 121	Design I	3
ART 130	Ancient and Medieval Art	3
ENG 101	Composition I	3
Mathematics [1]		3
	Hours	**15**
Second Semester		
ART 111	Drawing II	3
ART 122	Design II	3
ART 131	Gothic through Romantic Art	3
Physical and Life Science [2]		3
Social and Behavioral Science [3]		3
	Hours	**15**
Third Semester		
ART 132	Modern and Contemporary Art	3
Art Studio elective [4]		3
Art Studio elective [4]		3
ENG 102	Composition II	3
Social and Behavioral Science [5]		3
	Hours	**15**
Fourth Semester		
Art Studio elective [4]		3
Humanities and Fine Arts [6]		3
Physical and Life Science [2]		4
Social and Behavioral Science [5]		3
SPE 101	Fundamentals of Speech Communication	3
	Hours	**16**
	Total Hours	**61**

[1] Refer to the Associate in Arts degree for approved courses in this category.

[2] Select one Physical and one Life Science course. At least one must include a lab. Refer to the Associate in Arts degree for the approved courses in this category.

[3] PSY 101 or SOC 101 is recommended. Both courses meet the World Culture and Diversity graduation requirement.

[4] Choose from: ART 206, ART 225, ART 250, ART 261, ART 291 and ART 296.

[5] One course from Humanities and Fine Arts or from Social and Behavioral Science must meet the World Cultures and Diversity graduation requirement. Refer to the Associate in Arts degree for the approved courses in this category.

[6] Select from Humanities. One course from Humanities and Fine Arts or Social and Behavioral Science must meet the World Cultures and Diversity graduation requirement. Refer to the Associate in Arts degree for approved courses in this category.

Biology: Transfer Plan (AS)

Program website (https://www.harpercollege.edu/academics/science/biologicalsciences/biology-sample-transfer-plan.php)

Program Overview

This sample transfer planning guide meets the requirements of the Associate in Science degree and follows the Illinois Articulation Initiative biological sciences baccalaureate major recommendations. Students should decide the specialization within the biological sciences major as early as possible, preferably by the beginning of the sophomore year. Students choosing to follow this sample plan need to choose the major of Associate in Science if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

Program Requirements

Course	Title	Hours
First Semester		
BIO 115	Fundamentals of Cellular Biology	4
CHM 121	General Chemistry I	5
ENG 101	Composition I	3
MTH 200	Calculus I	5
	Hours	**17**
Second Semester		
BIO 116	Fundamentals of Organismal Biology	4
CHM 122	General Chemistry II	5
ENG 102	Composition II	3
Humanities and Fine Arts [1]		3
	Hours	**15**
Third Semester		
BIO 260	Human Anatomy	4
CHM 204	Organic Chemistry I	5
MTH 225 or MTH 165	Business Statistics or Elementary Statistics	4
Social and Behavioral Science [2]		3
	Hours	**16**
Fourth Semester		
BIO 261	Human Physiology	4
CHM 205	Organic Chemistry II	5
Humanities and Fine Arts [1]		3
Social and Behavioral Science [2]		3
SPE 101	Fundamentals of Speech Communication	3
	Hours	**18**
	Total Hours	**66**

[1] Select at least one course from Humanities and one from Fine Arts. Interdisciplinary courses may count in either category. Refer to the Associate in Science degree for approved courses in this category. One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the World Cultures and Diversity graduation requirement for the Associate in Science degree.

[2] One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the World Cultures and Diversity graduation requirement for the Associate in Science degree.

Business Administration: Transfer Plan (AA)

Program website (https://www.harpercollege.edu/academics/business/business-administration/business-transfer.php)

Program Overview

This sample transfer planning guide meets the requirements of the Associate in Arts degree and follows the Illinois Articulation Initiative business administration baccalaureate major recommendations. Students choosing to follow this sample plan need to choose the major of Associate in Arts if needing financial aid. Students will choose a major within the business field at the four-year institution they attend. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

Program Requirements

Course	Title	Hours
First Semester		
ECO 211	Microeconomics	3
ENG 101	Composition I	3
MGT 111	Introduction to Business Organization	3
MTH 134	Calculus for Business and Social Sciences [1]	4
	Hours	**13**
Second Semester		
CIS 101	Introduction to Computer Information Systems	3
ECO 212	Macroeconomics	3
ENG 102	Composition II	3
MTH 225	Business Statistics	4
Physical and Life Science [2]		3
	Hours	**16**
Third Semester		
ACC 101	Introduction to Financial Accounting	4
Humanities and Fine Arts [3]		3
Physical and Life Science [2]		4
Social and Behavioral Science [4]		3
SPE 101	Fundamentals of Speech Communication	3
	Hours	**17**
Fourth Semester		
ACC 102	Introduction to Managerial Accounting	3
Humanities and Fine Arts [3]		6
Major Discipline and Transfer Elective [5]		3
	Hours	**12**
	Total Hours	**58**

[1] Students who have previous credit in MTH 200 should speak to their academic advisor regarding using this credit in lieu of MTH 134.

[2] Select one Physical and one Life Science course. At least one must include a lab. Refer to the Associate in Arts degree for approved courses in this category.

[3] PHI 115 is recommended. Select at least one course from Humanities and one from Fine Arts. Interdisciplinary courses may count in either category. Refer to the Associate in Arts degree for approved courses in this category. One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the World Cultures and Diversity graduation requirement for the Associate in Arts degree.

[4] PSY 101 is recommended and meets the World Culture and Diversity graduation requirement. Refer to the Associate in Arts degree for approved courses in this category. One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the World Cultures and Diversity graduation requirement for the Associate in Arts degree.

[5] MKT 217 is recommended. Students should check with the school they are planning on transferring to. Refer to the Associate in Arts degree for approved courses in this category.

Chemistry: Transfer Plan (AS)

Program website (https://www.harpercollege.edu/academics/science/chemistry/chemistry-sample-transfer-plan.php)

Program Overview

This sample transfer planning guide meets the requirements of the Associate in Science degree and follows the Illinois Articulation Initiative chemistry baccalaureate major recommendations. Students are also encouraged to complete course sequences at the same institution prior to transfer. Students choosing to follow this sample plan need to choose the major of Associate in Science if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

Program Requirements

Course	Title	Hours
First Semester		
CHM 121	General Chemistry I	5
ENG 101	Composition I	3
Humanities and Fine Arts [1]		3
MTH 200	Calculus I	5
	Hours	**16**
Second Semester		
CHM 122	General Chemistry II	5
ENG 102	Composition II	3
MTH 201	Calculus II	5
PHY 201	General Physics I-Mechanics	5
	Hours	**18**
Third Semester		
CHM 204	Organic Chemistry I	5
PHY 202	General Physics II-Electricity and Magnetism	5
Social and Behavioral Science [2]		3
SPE 101	Fundamentals of Speech Communication	3
	Hours	**16**
Fourth Semester		
CHM 205	Organic Chemistry II	5
Humanities and Fine Arts [1]		3
Physical and Life Science [3]		3
Social and Behavioral Science [2]		3
	Hours	**14**
	Total Hours	**64**

[1] Select at least one course from Humanities and one from Fine Arts. Interdisciplinary courses may count in either category. Refer to the Associate in Science degree for approved courses in this category. One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the World Cultures and Diversity graduation requirement for the Associate in Science degree.

[2] One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the World Cultures and Diversity graduation requirement for the Associate in Science degree.

[3] Select from Life Science. Refer to the Associate in Science degree for approved courses in this category.

Computer Science: Transfer Plan (AS)

Program website (https://www.harpercollege.edu/academics/stem/computer-science/computer-science-transfer.php)

Program Overview

This sample transfer guide meets the requirements of the Associate in Science degree and follows the Illinois Articulation Initiative computer science - technical emphasis baccalaureate major recommendations. Bachelor's degree programs in computer science encompass two distinct emphases: the information systems emphasis and the technical emphasis. The technical emphasis focuses on algorithms, theoretical foundations of computer science and development of software. Students choosing to follow this sample plan need to choose the major of Associate in Science if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

Program Requirements

Course	Title	Hours
First Semester		
CSC 121	Computer Science I	4
ECO 211	Microeconomics	3
EGR 100	Introduction to Engineering [1]	1
ENG 101	Composition I	3
MTH 200	Calculus I	5
	Hours	**16**
Second Semester		
CSC 122	Computer Science II	4
ENG 102	Composition II	3
MTH 201	Calculus II	5
Physical and Life Science [1]		3
	Hours	**15**
Third Semester		
ECO 212	Macroeconomics	3
Humanities and Fine Arts [2]		3
MTH 220	Discrete Mathematics	3
PHY 201	General Physics I-Mechanics	5
	Hours	**14**
Fourth Semester		
Humanities and Fine Arts [2]		3
Major Discipline and Transfer Elective		4
PHY 202	General Physics II-Electricity and Magnetism	5
SPE 101	Fundamentals of Speech Communication	3
	Hours	**15**
	Total Hours	**60**

[1] This is a Start Smart course.

[2] Select from Life Science. Refer to the Associate in Science degree for approved courses in this category.

[3] Select at least one course from Humanities and one from Fine Arts. Interdisciplinary courses may count in either category. Refer to the Associate in Science degree for approved courses in this category. One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the World Cultures and Diversity graduation requirement for the Associate in Science degree.

Early Childhood Education: Transfer Plan (AA)

Program website (https://www.harpercollege.edu/academics/education/elementary-education/elementary-education-transfer.php)

Program Overview

This sample transfer planning guide meets the requirements of the Associate of Arts degree and follows the Illinois Articulation Initiative early childhood education baccalaureate major recommendations. Harper also offers an associate in applied science degree in early childhood education. Students choosing to follow this sample plan need to choose the major of Associate in Arts if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

Program Requirements

Course	Title	Hours
First Semester		
ECE 101	Introduction to Early Childhood Education [1]	3
ECE 102	Child Development [1]	3
ENG 101	Composition I	3
Mathematics [2]		3
SPE 101	Fundamentals of Speech Communication	3
	Hours	**15**
Second Semester		
ECE 250	Health, Nutrition and Safety [1]	3
ECE 252	Child-Family-Community [1]	3
ENG 102	Composition II	3
HST 111 or HST 112	American Experience to 1877 or American Experience Since 1877	3
Physical and Life Science [3]		4
	Hours	**16**
Third Semester		
EDU 201	Introduction to Education [1]	3
Humanities and Fine Arts [4]		6
Physical and Life Science [2]		3
Social and Behavioral Science [5]		3
	Hours	**15**
Fourth Semester		
EDU 219	Students with Disabilities in School	3
Humanities and Fine Arts [3]		3
Major Discipline and Transfer Elective [1]		5
Social and Behavioral Science [5]		3
	Hours	**14**
	Total Hours	**60**

[1] Students should consult with the transfer school as soon as possible to advise on which ECE and EDU courses to take that will transfer.

[2] Refer to the Associate in Arts degree for approved courses in this category. Students should check the curriculum of the transfer school they are considering.

[3] Select one Physical and one Life Science course. At least one must include a lab. Refer to the Associate in Arts degree for approved courses in this category.

[4] Select at least one course from Humanities and one from Fine Arts. Interdisciplinary courses may count in either category. Refer to the Associate in Arts degree for approved courses in this category. One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the World Cultures and Diversity graduation requirement for the Associate in Arts degree.

[5] One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the World Cultures and Diversity graduation requirement for the Associate in Arts degree.

Elementary Education: Transfer Plan (AA)

Program website (https://www.harpercollege.edu/academics/education/elementary-education/elementary-education-transfer.php)

Program Overview

This sample transfer planning guide meets the requirements of the Associate of Arts degree. Students choosing to follow this sample plan need to choose the major of Associate in Arts if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

Program Requirements

Course	Title	Hours
First Semester		
EDU 201	Introduction to Education	3
ENG 101	Composition I	3
MTH 130	Mathematics for Elementary Teaching I	4
PSY 101	Introduction to Psychology	3
SPE 101	Fundamentals of Speech Communication	3
	Hours	**16**
Second Semester		
EDU 211	Educational Psychology	3
ENG 102	Composition II	3
HST 111 or HST 112	American Experience to 1877 or American Experience Since 1877	3
MTH 131	Mathematics for Elementary Teaching II	4
Physical and Life Science [1]		4
	Hours	**17**
Third Semester		
EDU 202	Pre-Student Teaching Clinical Experience	1
EDU 220 or EDU 250	Diversity in Schools and Society or Introduction to Technology in Education	3
Humanities and Fine Arts [2]		6
Physical and Life Science [1]		3
PSC 101	American Politics and Government	3
	Hours	**16**
Fourth Semester		
EDU 219	Students with Disabilities in School	3
HED 200	Health	3
Humanities and Fine Arts [2]		3
Major Discipline and Transfer Elective [3]		3
	Hours	**12**
	Total Hours	**61**

[1] Select one Physical and one Life Science course. At least one must include a lab. Refer to the Associate in Arts degree for approved courses in this category.

[2] Select at least one course from Humanities and one from Fine Arts. Interdisciplinary courses may count in either category. Refer to the Associate in Arts degree for approved courses in this category. One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the World Cultures and Diversity graduation requirement for the Associate in Arts degree.

[3] Students should consult with the transfer school to see which courses transfer.

Engineering: Transfer Plan (AES)

Program website (https://www.harpercollege.edu/academics/stem/engineering/engineering-transfer.php)

Program Overview

This sample transfer planning guide meets the requirements of the Associate in Engineering Science degree and follows the Illinois Articulation Initiative engineering baccalaureate major recommendations. Students should have a strong background in mathematics and the physical sciences. Students choosing to follow this sample plan need to choose the major of Associate in Engineering Science if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

Completion of the Associate in Engineering Science (AES) degree does not fulfill the requirements of the Illinois General Education Core Curriculum. After transfer, AES students will need to complete the general education requirements of the institution to which they transfer.

Program Requirements

Course	Title	Hours
First Semester		
CHM 121	General Chemistry I	5
EGR 100	Introduction to Engineering	1
ENG 101	Composition I	3
MTH 200	Calculus I	5
Social and Behavioral Science [1,2]		3
	Hours	**17**
Second Semester		
CSC 121	Computer Science I	4
ENG 102	Composition II	3
MTH 201	Calculus II	5
PHY 201	General Physics I-Mechanics	5
	Hours	**17**
Third Semester		
MTH 202	Calculus III	5
PHY 202	General Physics II-Electricity and Magnetism	5
Humanities and Fine Arts [2]		3
Computer Science [3]		1-4
	Hours	**14-17**
Fourth Semester		
MTH 212	Differential Equations	3
PHY 203	General Physics III-Thermal and Quantum Physics	5
Computer Science [4]		6-10
	Hours	**14-18**
	Total Hours	**62-69**

[1] ECO 211 is recommended.

[2] Refer to the Associate in Engineering Science degree for approved courses in this category. One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the World Cultures and Diversity graduation requirement for the Associate in Engineering Science degree.

[3] CSC 122 is recommended for Electrical, Computer, and Computer Science. Engineering. EGR 105 is recommended for all specializations. EGR 120 is recommended for Aerospace, Civil, Environmental, Industrial, Mechanical, and Systems. EGR 210 is recommended for Aerospace, Civil, Environmental, Industrial, Mechanical, Nuclear, and Systems

[4] CSC 122 is recommended for Electrical, Computer, and Computer Science. CSC 214 and CSC 216 are recommended for Computer Science. Engineering. EGR 110 is recommended for Electrical, Computer, Industrial, and Systems. EGR 120 is recommended for Aerospace, Civil, Environmental, Industrial, Mechanical, and Systems. EGR 211 is recommended for Aerospace, Civil, Environmental, Industrial, Mechanical, Nuclear, and Systems. EGR 212 is recommended for Civil, Environmental, Industrial, Mechanical, and Systems. EGR 240 is recommended for Aerospace, Chemical, Civil, Mechanical, and Nuclear. Mathematics. MTH 203 is recommended for Aerospace, Civil, Computer, Electrical, Environmental, Industrial, Materials, Mechanical, Nuclear, and Systems. MTH 220 is recommended for Computer Science

- EGR 265 is offered in the summer term, for students to take after completing their fourth semester. Recommended for Aerospace, Materials, Mechanical, and Nuclear. For other engineering majors not listed above, please consult with the transfer institution and your academic advisor for specialty course recommendations.
- First-Year Seminar (FYS) course
- Check transfer institution requirements

English: Transfer Plan (AA)

Program website (https://www.harpercollege.edu/academics/liberal-arts/english/english-sample-transfer-plan.php)

Program Overview

This sample transfer planning guide meets the requirements of the Associate in Arts degree and follows the Illinois Articulation Initiative English baccalaureate major recommendations. Students choosing to follow this sample plan need to choose the major of Associate in Arts if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

Program Requirements

Course	Title	Hours
First Semester		
ENG 101	Composition I	3
FYS 101	First Year Seminar	3
Mathematics [1]		3
Physical and Life Science [2]		3
Social and Behavioral Science [3]		3
	Hours	**15**
Second Semester		
ENG 102	Composition II	3
Humanities and Fine Arts [4]		3
Physical and Life Science [2]		4
Social and Behavioral Science [3]		3
SPE 101	Fundamentals of Speech Communication	3
	Hours	**16**
Third Semester		
Humanities and Fine Arts [4]		3
Major Discipline and Transfer Elective [5]		6
Major Discipline and Transfer Elective [6]		3
Social and Behavioral Science [3]		3
	Hours	**15**
Fourth Semester		
Humanities and Fine Arts [4]		3
Major Discipline and Transfer Elective [5]		8
Major Discipline and Transfer Elective [6]		3
	Hours	**14**
	Total Hours	**60**

[1] Refer to the Associate in Arts degree for approved courses in this category.

[2] Select at least one Physical and one Life Science. One course must include a lab. Refer to the Associate in Arts degree for the approved courses in this category.

[3] One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the World Cultures and Diversity graduation requirement. Refer to the Associate in Arts degree for approved courses in this category.

[4] Select one course from Humanities and one course from Fine Arts. Interdisciplinary courses may count in either category. One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the World Cultures and Diversity graduation requirement. Refer to the Associate in Arts degree for approved courses in this category.

[5] Recommended courses for ease of transfer: LIT 221, LIT 222, LIT 231, LIT 232. Additional recommended courses: LIT 105, LIT 112, LIT 115, LIT 208, LIT 210, LIT 220, LIT 223, LIT 224.

[6] A writing course is recommended but is not part of the Illinois Articulation Initiative Baccalaureate Majors' Recommendations (IAI Majors). Choose from ENG 130, ENG 200, ENG 201, ENG 220, ENG 221, ENG 222.

History: Transfer Plan (AA)

Program website (https://www.harpercollege.edu/academics/social-science/history/history-sample-transfer-plan.php)

Program Overview

This sample transfer planning guide meets the requirements of the Associate in Arts degree and follows the Illinois Articulation Initiative history baccalaureate major recommendations. Students choosing to follow this sample plan need to choose the major of Associate in Arts if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

Program Requirements

Course	Title	Hours
First Semester		
ENG 101	Composition I	3
FYS 101	First Year Seminar	3
Select one of the following:		3
HST 111	American Experience to 1877	
HST 112	American Experience Since 1877	
HST 121	History of Mexico, Central and South America [+]	
Mathematics [1]		3
Humanities and Fine Arts [2]		3
	Hours	**15**
Second Semester		
ENG 102	Composition II	3
HST 141 or HST 142	History of Western Civilization to 1650 or History of Western Civilization Since 1650	4
Physical and Life Science [3]		3
Social and Behavioral Science		3
SPE 101	Fundamentals of Speech Communication	3
	Hours	**16**
Third Semester		
Select one of the following:		3
HST 231	History of the Middle East to 1453 [+]	
HST 241	History of China: Earliest Time through Ming Dynasty [+]	
HST 245	The World Since 1945 [+]	
Humanities and Fine Arts		3
Physical and Life Science		4
Social and Behavioral Science		3
	Hours	**13**
Fourth Semester		
Select one of the following:		3
HST 232	History of the Middle East 1453 to Present [+]	
HST 242	History of China: From the Ching Dynasty to Present [+]	
HST 243	Far East in the Modern World [+]	

Humanities and Fine Arts [2]		3
Major Discipline and Transfer Elective		6
Social and Behavioral Science		3
	Hours	**15**
	Total Hours	**59**

[+] This course meets the World Culture and Diversity graduation requirement.

[1] Refer to the Associate in Arts degree for approved courses in this category.

[2] Select at least one course from Humanities and one from Fine Arts. Interdisciplinary courses may count in either category. Refer to the Associate in Arts degree for approved courses in this category.

[3] Select one Physical and one Life Science course. At least one must include a lab. Refer to the Associate in Arts degree for approved courses in this category.

Law Enforcement and Justice Administration: Transfer Plan (AA)

Program website (https://www.harpercollege.edu/academics/public-service/law-enforcement/law-justice-sample-transfer-plan.php)

Program Overview

This sample transfer planning guide meets the requirements of the Associate in Arts degree and follows the Illinois Articulation Initiative law enforcement (criminal justice) baccalaureate major recommendations. Harper also offers an associate in applied science degree in law enforcement. Students choosing to follow this sample plan need to choose the major of Associate in Arts if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

Program Requirements

Course	Title	Hours
First Semester		
ENG 101	Composition I	3
LEJ 101	Introduction to Criminal Justice	3
Major Discipline and Transfer Elective		3
Mathematics [1]		3
SOC 101	Introduction to Sociology [+]	3
	Hours	**15**
Second Semester		
ENG 102	Composition II	3
LEJ 210	Criminology	3
Major Discipline and Transfer Elective		3
Physical and Life Science [2]		3
PSY 101	Introduction to Psychology [+]	3
	Hours	**15**
Third Semester		
Humanities and Fine Arts [3]		3
Humanities and Fine Arts [3]		3
LEJ 104	Corrections	3
Physical and Life Science [2]		4
Social and Behavioral Science [4]		3
	Hours	**16**
Fourth Semester		
Humanities and Fine Arts [3]		3
LEJ 205	Juvenile Justice	3
Major Discipline and Transfer Elective		5
SPE 101	Fundamentals of Speech Communication	3
	Hours	**14**
	Total Hours	**60**

[1] Refer to the Associate in Arts degree for approved courses in this category.

[+] This course meets the World Culture and Diversity graduation requirement.

[2] Select one Physical and one Life science course. At least one course must include a lab. Refer to the Associate in Arts degree for the approved courses in this category.

[3] Select at least one course from Humanities and one from Fine Arts. Interdisciplinary courses may count in either category. Refer to the Associate in Arts degree for the approved courses in this category.

[4] Refer to the Associate in Arts degree for the approved courses in this category.

Mass Communication - Advertising/PR: Transfer Plan (AA)

Program website (https://www.harpercollege.edu/academics/liberal-arts/mass-communication/advertising-pr-transfer-plan.php)

Program Overview

This sample transfer planning guide meets the requirements of the Associate in Arts degree and follows the Illinois Articulation Initiative mass communication baccalaureate major recommendations. Students choosing to follow this sample plan need to choose the major of Associate in Arts if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses does not guarantee admission.

Program Requirements

Course	Title	Hours
First Semester		
ENG 101	Composition I	3
FYS 101	First Year Seminar	3
Mathematics [1]		3
MCM 120	Introduction to Mass Communication	3
SPE 101	Fundamentals of Speech Communication	3
	Hours	**15**
Second Semester		
ENG 102	Composition II	3
MCM 130	Introduction to Journalism	3
MCM 200	Film History	3
Physical and Life Science [2]		4
Social and Behavioral Science [3]		3
	Hours	**16**
Third Semester		
Humanities and Fine Arts [4]		3
MCM 205	Multi-Platform Photojournalism	3
MCM 212	Multi-Camera Production	3
Physical and Life Science [2]		3
Social and Behavioral Science [3]		3
	Hours	**15**
Fourth Semester		
Humanities and Fine Arts [4]		3
Major Discipline and Transfer Elective [5]		6
MCM 233	Introduction to Public Relations	3
Social and Behavioral Science [3]		3
	Hours	**15**
	Total Hours	**61**

[1] Refer to the Associate in Arts degree for approved courses in this category. Students should check the curriculum of the transfer school they are considering.

[2] Select one Physical and one Life Science course. At least one must include a lab. Refer to the Associate in Arts degree for approved courses in this category.

[3] Select one Social and Behavioral Science course. Refer to the Associate in Arts degree for approved courses in this category.

[4] Select at least one course from Humanities or Interdisciplinary Studies. Refer to the Associate in Arts degree for approved courses in this category.

[5] Additional recommended courses: MCM 150, MCM 156, MCM 218

Mass Communication - Journalism: Transfer Plan (AA)

Program website (https://www.harpercollege.edu/academics/liberal-arts/mass-communication/journalism-transfer-plan.php)

Program Overview

This sample transfer planning guide meets the requirements of the Associate in Arts degree and follows the Illinois Articulation Initiative mass communication baccalaureate major recommendations. Students choosing to follow this sample plan need to choose the major of Associate in Arts if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses does not guarantee admission.

Program Requirements

Course	Title	Hours
First Semester		
ENG 101	Composition I	3
FYS 101	First Year Seminar	3
Mathematics [1]		3
MCM 120	Introduction to Mass Communication	3
SPE 101	Fundamentals of Speech Communication	3
	Hours	**15**
Second Semester		
ENG 102	Composition II	3
MCM 130	Introduction to Journalism	3
MCM 200	Film History	3
Physical and Life Science [2]		4
Social and Behavioral Science [3]		3
	Hours	**16**
Third Semester		
Humanities and Fine Arts [4]		3
MCM 205	Multi-Platform Photojournalism	3
MCM 212	Multi-Camera Production	3
Physical and Life Science [2]		3
Social and Behavioral Science [3]		3
	Hours	**15**
Fourth Semester		
Humanities and Fine Arts [4]		3
Major Discipline and Transfer Elective [5]		9
Social and Behavioral Science [3]		3
	Hours	**15**
	Total Hours	**61**

[1] Refer to the Associate in Arts degree for approved courses in this category. Students should check the curriculum of the transfer school they are considering.

[2] Select one Physical and one Life Science course. At least one must include a lab. Refer to the Associate in Arts degree for approved courses in this category.

[3] Select one Social and Behavioral Science course. Refer to the Associate in Arts degree for approved courses in this category.

[4] Select at least one course from Humanities or Interdisciplinary Studies. Refer to the Associate in Arts degree for approved courses in this category.

[5] Additional recommended courses: MCM 150, MCM 156, MCM 180, MCM 218, MCM 233

Mass Communication - Radio/TV/ Film: Transfer Plan (AA)

Program website (https://www.harpercollege.edu/academics/liberal-arts/ mass-communication/radio-tv-film-transfer-plan.php)

Program Overview

This sample transfer planning guide meets the requirements of the Associate in Arts degree and follows the Illinois Articulation Initiative mass communication baccalaureate major recommendations. Students choosing to follow this sample plan need to choose the major of Associate in Arts if needing financial aid. Transfer institution requirements may vary - students should check individual college/ university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses does not guarantee admission.

Program Requirements

Course	Title	Hours
First Semester		
ENG 101	Composition I	3
FYS 101	First Year Seminar	3
Mathematics [1]		3
MCM 120	Introduction to Mass Communication	3
SPE 101	Fundamentals of Speech Communication	3
	Hours	**15**
Second Semester		
ENG 102	Composition II	3
MCM 156	Audio Production I	3
MCM 200	Film History	3
Physical and Life Science [2]		4
Social and Behavioral Science [3]		3
	Hours	**16**
Third Semester		
Humanities and Fine Arts [4]		3
MCM 211 or MCM 212	Video Production or Multi-Camera Production	3
Major Discipline and Transfer Elective [4]		3
Physical and Life Science [2]		3
Social and Behavioral Science [3]		3
	Hours	**15**
Fourth Semester		
Humanities and Fine Arts [4]		3
MCM 210	Video Editing and Video Post-Production	3
Major Discipline and Transfer Elective [5]		6
Social and Behavioral Science [3]		3
	Hours	**15**
	Total Hours	**61**

[1] Refer to the Associate in Arts degree for approved courses in this category. Students should check the curriculum of the transfer school they are considering.

[2] Select one Physical and one Life Science course. At least one must include a lab. Refer to the Associate in Arts degree for approved courses in this category.

[3] Select one Social and Behavioral Science course. Refer to the Associate in Arts degree for approved courses in this category.

[4] Select at least one course from Humanities or Interdisciplinary Studies. Refer to the Associate in Arts degree for approved courses in this category.

[5] Additional recommended courses: MCM 180, MCM 218

Mathematics: Transfer Plan (AS)

Program website (https://www.harpercollege.edu/academics/stem/mathematics/mathematics-transfer.php)

Program Overview

This sample transfer planning guide meets the requirements of the Associate in Science degree and follows the Illinois Articulation Initiative mathematics baccalaureate major recommendations. Students choosing to follow this sample plan need to choose the major of Associate in Science if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

Program Requirements

Course	Title	Hours
First Semester		
ENG 101	Composition I	3
FYS 101	First Year Seminar	3
MTH 200	Calculus I	5
Physical and Life Science [1]		4
	Hours	**15**
Second Semester		
ENG 102	Composition II	3
Humanities and Fine Arts [2]		3
MTH 201	Calculus II	5
SPE 101	Fundamentals of Speech Communication	3
	Hours	**14**
Third Semester		
CSC 121	Computer Science I	4
MTH 202	Calculus III	5
PHY 201	General Physics I-Mechanics	5
Social and Behavioral Science [3]		3
	Hours	**17**
Fourth Semester		
Humanities and Fine Arts [2]		3
MTH 212	Differential Equations	3
Major Discipline and Transfer Elective [4]		3
Physical and Life Science [1]		3
Social and Behavioral Science [3]		3
	Hours	**15**
	Total Hours	**61**

[1] Select one Physical and one Life Science course. At least one must include a lab. Refer to the Associate in Science degree for approved courses in this category.

[2] Select at least one course from Humanities and one from Fine Arts. Interdisciplinary courses may count in either category. Refer to the Associate in Science degree for approved courses in this category. One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the World Cultures and Diversity graduation requirement for the Associate in Science degree.

[3] One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the World Cultures and Diversity graduation requirement. Refer to the Associate in Arts degree for approved courses in this category.

[4] Consult with the transfer school to see which course will be accepted based on your area of study.

Music: Transfer Plan (AFA - Music)

Program website (https://www.harpercollege.edu/academics/arts/music/fine-arts-music-transfer.php)

Program Overview

This sample transfer planning guide meet the requirements of the Associate in Fine Arts - Music degree. The music emphasis at Harper College is designed to provide the student with a program equivalent to the first two years of most four-year college programs, with emphasis in music education, musicology, composition, applied music, and theory and literature. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

Completion of the Associate in Fine Arts degree does not fulfill the requirements of the Illinois General Education Core Curriculum. After transfer, Associate in Fine Arts - Music students will need to complete the General Education requirements of the institution to which they transfer.

Program Requirements

Course	Title	Hours
First Semester		
Applied Music		2
ENG 101	Composition I	3
Ensemble		1
Humanities and Fine Arts [1]		3
MUS 111	Theory of Music I	3
MUS 115	Aural Skills I	1
MUS 120	Introduction to Music Literature	3
MUS 165	Class Piano I [2]	2
	Hours	**18**
Second Semester		
Applied Music		2
ENG 102	Composition II	3
Ensemble		1
Humanities and Fine Arts [1]		3
Mathematics [3]		3
MUS 112	Theory of Music II	3
MUS 116	Aural Skills II	1
MUS 166	Class Piano II [2]	2
	Hours	**18**
Third Semester		
Applied Music		2
Ensemble		1
MUS 211	Theory of Music III	3
MUS 215	Aural Skills III	1
MUS 265	Class Piano III [2]	2
Physical and Life Science [4]		3
SPE 101	Fundamentals of Speech Communication	3
	Hours	**15**
Fourth Semester		
Applied Music		2
Ensemble		1
MUS 212	Theory of Music IV	3
MUS 216	Aural Skills IV	1
MUS 266	Class Piano IV [2]	2
Physical and Life Science [4]		4
Social and Behavioral Science [5]		3
	Hours	**16**
	Total Hours	**67**

[1] Select one course from Humanities and one course from Fine Arts. Interdisciplinary courses may count as either category. One course from Humanities and Fine Arts or Social and Behavioral Sciences must meet the World Cultures and Diversity graduation requirement. Refer to the Associate in Fine Arts - Music degree for the approved courses in this category.

[2] MUS 165, MUS 166, MUS 265, and MUS 266 may be passed by proficiency exam.

[3] Refer to the Associate in Fine Arts - Music degree for approved courses in this category.

[4] Select one Physical and one Life Science course. At least one must include a lab. Refer to the Associate in Fine Arts degree for approved courses in this category.

[5] One course from Humanities and Fine Arts or Social and Behavioral Sciences must meet the World Cultures and Diversity graduation requirement. Refer to the Associate in Fine Arts - Music degree for the approved courses in this category.

Physics: Transfer Plan (AS)

Program website (https://www.harpercollege.edu/academics/science/physics/physics-sample-transfer-plan.php)

Program Overview

This sample transfer planning guide meets the requirements of the Associate in Science degree. Students choosing to follow this sample plan need to choose the major of Associate in Science if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

Program Requirements

Course	Title	Hours
First Semester		
CHM 121	General Chemistry I	5
ENG 101	Composition I	3
MTH 200	Calculus I	5
Social and Behavioral Science [1]		3
	Hours	**16**
Second Semester		
CHM 122	General Chemistry II	5
ENG 102	Composition II	3
MTH 201	Calculus II	5
PHY 201	General Physics I-Mechanics	5
	Hours	**18**
Third Semester		
Humanities and Fine Arts [2]		3
MTH 202	Calculus III	5
PHY 202	General Physics II-Electricity and Magnetism	5
SPE 101	Fundamentals of Speech Communication	3
	Hours	**16**
Fourth Semester		
Humanities and Fine Arts [2]		3
Life Science		3
MTH 212	Differential Equations	3
PHY 203	General Physics III-Thermal and Quantum Physics	5
Social and Behavioral Science [1]		3
	Hours	**17**
	Total Hours	**67**

[1] One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the World Cultures and Diversity graduation requirement. Refer to the Associate in Science degree for approved courses in this category.

[2] Select one course from Humanities and one course from Fine Arts. Interdisciplinary courses may count in either category. One course from Humanities and Fine Arts or Social and Behavioral Sciences must meet the World Cultures and Diversity graduation requirement. Refer to the Associate in Science degree for approved courses in this category.

Political Science: Transfer Plan (AA)

Program website (https://www.harpercollege.edu/academics/social-science/political-science/political-science-sample-transfer-plan.php)

Program Overview

This sample transfer planning guide meets the requirements of the Associate in Arts degree and follows the Illinois Articulation Initiative political science baccalaureate major recommendations. Students choosing to follow this sample plan need to choose the major of Associate in Arts if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

Program Requirements

Course	Title	Hours
First Semester		
ENG 101	Composition I	3
FYS 101	First Year Seminar	3
Mathematics [1]		3
PSC 101	American Politics and Government	3
SPE 101	Fundamentals of Speech Communication	3
	Hours	**15**
Second Semester		
ENG 102	Composition II	3
Physical and Life Science [2]		3
Humanities and Fine Arts [3]		3
PSC 220	State and Local Government in the U.S.	3
Social and Behavioral Science [4]		3
	Hours	**15**
Third Semester		
Humanities and Fine Arts [3]		3
Physical and Life Science [2]		4
PSC 250	Comparative Politics	3
PSC 270	Global Politics	3
Social and Behavioral Science [4]		3
	Hours	**16**
Fourth Semester		
Humanities and Fine Arts [3]		3
Major Discipline and Transfer Elective [5]		5
PSC 280	Non-Western Comparative Politics	3
	Hours	**11**
	Total Hours	**57**

[1] Refer to the Associate in Arts degree for approved courses in this category. MTH 165 is recommended. Consult with transfer school before selecting course.

[2] Select at least one Physical and one Life Science. One course must include a lab. Refer to the Associate in Arts degree for the approved courses in this category.

[3] Select one course from Humanities and one course from Fine Arts. Interdisciplinary courses may count in either category. One course from Humanities and Fine Arts or Social and Behavioral Sciences must meet the World Cultures and Diversity graduation requirement. Refer to the Associate in Arts degree for approved courses in this category.

[4] One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the World Cultures and Diversity graduation requirement. Refer to the Associate in Arts degree for approved courses in this category.

[5] Recommend courses from PHI, SPE, ECO, GEG, HST, LEJ, PSY or SOC.

Psychology: Transfer Plan (AA)

Program website (https://www.harpercollege.edu/academics/social-science/psychology/psychology-sample-transfer-plan.php)

Program Overview

This sample transfer planning guide meets the requirements of the Associate in Arts degree and follows the Illinois Articulation Initiative psychology baccalaureate major recommendations. Students choosing to follow this sample plan need to choose the major of Associate in Arts if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

Program Requirements

Course	Title	Hours
First Semester		
ENG 101	Composition I	3
FYS 101	First Year Seminar	3
Humanities and Fine Arts [1]		3
MTH 165	Elementary Statistics	4
PSY 101	Introduction to Psychology [+]	3
	Hours	**16**
Second Semester		
ENG 102	Composition II	3
Physical and Life Science [2]		3
Social and Behavioral Science [3]		3
SPE 101	Fundamentals of Speech Communication	3
PSY 230	Abnormal Psychology	3
	Hours	**15**
Third Semester		
Humanities and Fine Arts [1]		3
SOC 215	Introduction to Social Psychology	3
Major Discipline and Transfer Elective [4]		3
Major Discipline and Transfer Elective		3
Physical and Life Science [2]		4
	Hours	**16**
Fourth Semester		
Humanities and Fine Arts [1]		3
Social and Behavioral Science [3]		3
Major Discipline and Transfer Elective [5]		3
Major Discipline and Transfer Elective		3
Major Discipline and Transfer Elective		3
	Hours	**15**
	Total Hours	**62**

[1] Select at least one course from Humanities and one from Fine Arts. Interdisciplinary courses may count in either category. Refer to the Associate in Arts degree for approved courses in this category.

[+] This course meets the World Culture and Diversity graduation requirement.

[2] Select one Physical and one Life Science course. At least one must include a lab. Refer to the Associate in Arts degree for approved courses in this category.

[3] Refer to the Associate in Arts degree for approved courses in this category. One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the World Cultures and Diversity graduation requirement for the Associate in Arts degree.

[4] PSY 230 or PSY 245 is recommended depending on interest. Consult with the transfer school to see which course will be accepted. Courses from outside of Psychology should be taken to complete the remaining Social and Behavioral Science requirements

[5] Select from PSY 228, PSY 216, PSY 217, or PSY 218. Consult with the transfer school to see which course will be accepted based on your area of study.

Sociology: Transfer Plan (AA)

Program website (https://www.harpercollege.edu/academics/social-science/sociology/sociology-sample-transfer-plan.php)

Program Overview

This sample transfer planning guide meets the requirements of the Associate in Arts degree and follows the Illinois Articulation Initiative sociology baccalaureate major recommendations. Students choosing to follow this sample plan need to choose the major of Associate in Arts if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

Program Requirements

Course	Title	Hours
First Semester		
ENG 101	Composition I	3
FYS 101	First Year Seminar	3
Humanities and Fine Arts [1]		3
MTH 124 or MTH 165	Finite Mathematics or Elementary Statistics	3
SOC 101	Introduction to Sociology [+]	3
	Hours	**15**
Second Semester		
ENG 102	Composition II	3
Humanities and Fine Arts [1]		3
Physical and Life Science [2]		3
SOC 120	Family in Contemporary Society	3
Social and Behavioral Science [3]		3
	Hours	**15**
Third Semester		
ANT 101 or ANT 202	Introduction to Anthropology or Cultural Anthropology	3
Humanities and Fine Arts [1]		3
Physical and Life Science [2]		4
SOC 205	Social Problems	3
SOC 230	Sociology of Sex and Gender	3
	Hours	**16**
Fourth Semester		
Major Discipline and Transfer Elective		8
SOC 235	Race and Ethnicity	3
SPE 101	Fundamentals of Speech Communication	3
	Hours	**14**
	Total Hours	**60**

[1] Select one course from Humanities and one from Fine Arts. Interdisciplinary courses may count in either category. Refer to the Associate in Arts degree for approved courses in this category.

[+] This course meets the World Culture and Diversity graduation requirement.

[2] Select at least one Physical and one Life Science. One course must include a lab. Refer to the Associate in Arts degree for the approved courses in this category.

[3] Refer to the Associate in Arts degree for approved courses in this category.

Theater Arts: Transfer Plan (AA)

Program website (https://www.harpercollege.edu/academics/arts/theatre/theatre-transfer.php)

Program Overview

This sample transfer planning guide meets the requirements of the Associate in Arts degree and follows the Illinois Articulation Initiative theatre arts baccalaureate major recommendations. Students choosing to follow this sample plan need to choose the major of Associate in Arts if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

Program Requirements

Course	Title	Hours
First Semester		
ENG 101	Composition I	3
FYS 101	First Year Seminar	3
Mathematics [1]		3
SPE 101	Fundamentals of Speech Communication	3
THE 111	Introduction to Theatre	3
	Hours	**15**
Second Semester		
ENG 102	Composition II	3
Humanities and Fine Arts [2]		3
Physical and Life Science [3]		4
Social and Behavioral Science [4]		3
THE 212	Acting I	3
	Hours	**16**
Third Semester		
Major Discipline and Transfer Elective [1]		6
Physical and Life Science [3]		3
Social and Behavioral Science [4]		3
Humanities and Fine Arts [2]		3
	Hours	**15**
Fourth Semester		
THE 213	Acting II	3
Major Discipline and Transfer Elective [1]		9
Social and Behavioral Science [4]		3
	Hours	**15**
	Total Hours	**61**

[1] Refer to the Associate in Arts degree for approved courses in this category.

[2] Select one course from Humanities and one course from Fine Arts. Interdisciplinary courses may count in either category. One course from Humanities and Fine Arts or Social and Behavioral Sciences must meet the World Cultures and Diversity graduation requirement. Refer to the Associate in Arts degree for approved courses in this category.

[3] Select at least one Physical and one Life Science. One course must include a lab. Refer to the Associate in Arts degree for the approved courses in this category.

[4] One course from Humanities and Fine Arts or Social and Behavioral Sciences must meet the World Cultures and Diversity graduation requirement. Refer to the Associate in Arts degree for approved courses in this category.

Associate in Applied Science General Education Electives

See program for specific requirements.

Courses marked with a + meet the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Communications

Code	Title	Hours
English		
ENG 102	Composition II	3
ENG 103	Technical and Report Writing	3
ENG 130	Business Writing	3
Mass Communication		
MCM 130	Introduction to Journalism	3
Speech		
SPE 101	Fundamentals of Speech Communication	3

Humanities

Code	Title	Hours
Art		
ART 105	Introduction to Visual Art	3
ART 110	Drawing I	3
ART 111	Drawing II	3
ART 114	Introduction to Film	3
ART 121	Design I	3
ART 122	Design II	3
ART 130	Ancient and Medieval Art	3
ART 131	Gothic through Romantic Art	3
ART 132	Modern and Contemporary Art	3
ART 133	Non-Western Art [+]	3
ART 206	Printmaking Studio	3
ART 225	Figure Drawing Studio	3
ART 241	Digital Art and Animation Studio	3
ART 250	Introduction to Photographic Art	3
ART 251	Intermediate Photographic Art	3
ART 261	Painting Studio	3
ART 291	Ceramics Studio	3
ART 296	Sculpture Studio	3
English		
ENG 230	Topics in English	1-3
French		
FRN 101	Elementary French I	4
FRN 102	Elementary French II	4
FRN 201	Intermediate French I	4
FRN 202	Intermediate French II	4
FRN 205	French Conversation	3
FRN 210	Introduction to French Literature	3
German		
GER 101	Elementary German I	4
GER 102	Elementary German II	4
GER 201	Intermediate German I	4
GER 202	Intermediate German II	4
GER 205	German Conversation [+]	3
GER 210	Introduction to German Literature [+]	3
GER 230	German Civilization and Culture [+]	3
History		
HST 105	Great Ideas of World Civilizations [1]	3
HST 111	American Experience to 1877	3
HST 112	American Experience Since 1877	3
HST 121	History of Mexico, Central and South America [+]	3
HST 141	History of Western Civilization to 1650	4
HST 142	History of Western Civilization Since 1650	4
HST 151	History of England: Norman Conquest to 1600	3
HST 152	History of England: 1600 to Present	3
HST 153	British Culture and Society	3
HST 202	Topics in History	1-3
HST 210	Women: The American Experience [+]	3
HST 212	Recent American History, 1945-Present	3
HST 214	African-American History [+]	3
HST 219	Illinois and Local History	3
HST 231	History of the Middle East to 1453	3
HST 232	History of the Middle East 1453 to Present	3
HST 241	History of China: Earliest Time through Ming Dynasty	3
HST 242	History of China: From the Ching Dynasty to Present	3
HST 243	Far East in the Modern World	3
HST 245	The World Since 1945	3
HST 261	American Civil War 1848-1865	3
HST 270	History of Rome	3
HST 281	World War I	3
HST 282	World War II	3
Humanities		
HUM 101	Ancient through the Medieval West [+]	3
HUM 102	Renaissance through the Modern West [+]	3
HUM 104	Introduction to Middle Eastern Civilizations [+]	3
HUM 105	Great Ideas of World Civilizations [1]	3
HUM 106	The Cultures of Asia [+]	3
HUM 107	The Cultures of Africa [+]	3
HUM 110	Women and Creativity [+]	3
HUM 115	International and Regional Studies in Humanities	1-4
HUM 120	Classical Mythology	3
HUM 125	World Mythology [+]	3
Japanese		
JPN 101	Elementary Japanese I	4
JPN 102	Elementary Japanese II	4
JPN 201	Intermediate Japanese I	4
JPN 202	Intermediate Japanese II	4
JPN 205	Japanese Intensive Oral Practice	3
Literature		
LIT 105	Poetry	3
LIT 112	Literature and Film	3

LIT 115	Fiction	3	MUS 194	String Bass	1
LIT 208	Non-Western Literature [+]	3	MUS 195	Harp	1
LIT 210	Introduction to Shakespeare	3	MUS 196	Piano	1
LIT 216	Science Fiction	3	MUS 198	Voice	1
LIT 217	Crime Literature	3	MUS 199	Guitar	1
LIT 219	Children's Literature	3	**Philosophy**		
LIT 220	Japanese Literature in Translation [+]	3	PHI 101	Critical Thinking	3
LIT 221	American Literature, Colonial Days to Civil War	3	PHI 105	Introduction to Philosophy	3
LIT 222	American Literature: Civil War to Present	3	PHI 115	Ethics	3
LIT 223	Multicultural American Literature [+]	3	PHI 120	Social and Political Philosophy	3
LIT 224	Women in Literature [+]	3	PHI 150	Business Ethics	3
LIT 231	English Literature to 1800	3	PHI 160	Non-Western Philosophy [+]	3
LIT 232	English Literature 1800-1914	3	PHI 170	Environmental Ethics	3
LIT 241	20th Century British and American Literature	3	PHI 180	Biomedical Ethics	3
LIT 250	Topics in Literature	1-3	PHI 190	Philosophy and Gender [+]	3
Linguistics			PHI 205	Religions of the World [+]	3
LNG 105	Introduction to Language and Linguistics	3	PHI 215	Religion in America [+]	3
Mass Communication			PHI 220	Philosophy of Religion	3
MCM 156	Audio Production I	3	PHI 231	History of Philosophy--Ancient and Medieval	3
MCM 157	Podcast Production	3	PHI 232	History of Philosophy-Modern	3
MCM 200	Film History [+]	3	**Sign Language**		
MCM 205	Multi-Platform Photojournalism	3	SGN 101	American Sign Language I	4
Music			SGN 102	American Sign Language II	4
MUS 101	Fundamentals of Music Theory	3	SGN 201	American Sign Language III	4
MUS 103	Music Appreciation	3	SGN 202	American Sign Language IV	3
MUS 104	Introduction to American Music [+]	3	SGN 205	American Sign Language V	3
MUS 106	Introduction to Jazz	3	SGN 210	American Sign Language: Cultural Perspective [+]	4
MUS 107	Introduction to Music in Theatre	3	**Spanish**		
MUS 108	Introduction to World Music [+]	3	SPA 101	Elementary Spanish I	4
MUS 120	Introduction to Music Literature	3	SPA 102	Elementary Spanish II	4
MUS 130	Choir	1			
MUS 140	Band	1			
MUS 145	Ensembles	1	SPA 201	Intermediate Spanish I	4
MUS 150	Orchestra	1	SPA 202	Intermediate Spanish II	4
MUS 165	Class Piano I	2	SPA 205	Spanish Conversation [+]	3
MUS 166	Class Piano II	2	SPA 210	Introduction to Spanish Literature [+]	3
MUS 167	Class Guitar	2	**Speech**		
MUS 169	Class Voice	2	SPE 107	Oral Interpretation	3
MUS 180	Flute and Piccolo	1	SPE 205	Small Group Communication/Team Work	3
MUS 181	Oboe and English Horn	1	SPE 210	Persuasive Communication and Argumentation	3
MUS 182	Clarinet	1	SPE 215	Intercultural Communication [+]	3
MUS 183	Bassoon and Contra Bassoon	1	**Theater**		
MUS 184	Saxophone	1	THE 111	Introduction to Theatre [+]	3
MUS 185	French Horn	1	THE 121	Ethnic Traditions in American Theatre	3
MUS 186	Trumpet	1	THE 212	Acting I	3
MUS 187	Trombone	1			
MUS 188	Baritone	1			
MUS 189	Tuba	1			
MUS 190	Drum Set	1			
MUS 191	Violin	1			
MUS 192	Viola	1			
MUS 193	Cello	1			

[+] Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

[1] Students may take either HST 105 or HUM 105; credit will be given for only one of these courses.

Mathematics

Code	Title	Hours
Management		
MGT 150	Business Math	3
Mathematics		
MTH 100	Applied Math for Technical Careers	3
MTH 101	Quantitative Literacy	3
MTH 103	College Algebra	3
MTH 124	Finite Mathematics	3
MTH 130	Mathematics for Elementary Teaching I	4
MTH 131	Mathematics for Elementary Teaching II	4
MTH 134	Calculus for Business and Social Sciences	4
MTH 140	Precalculus	5
MTH 165	Elementary Statistics [1]	4
MTH 200	Calculus I	5
MTH 201	Calculus II	5
MTH 202	Calculus III	5
MTH 203	Linear Algebra	4
MTH 212	Differential Equations	3
MTH 220	Discrete Mathematics	3
MTH 225	Business Statistics [1]	4

[1] Students may take either MTH 165 or MTH 225; credit will be given for only one of these courses.

Natural Sciences

Code	Title	Hours
Astronomy		
AST 100	Astronomy Survey	3
AST 112	The Solar System	4
AST 115	Stars and Galaxies	4
Biology		
BIO 101	Biology Survey	3
BIO 103	Humans and the Environment	3
BIO 104	Environmental Laboratory Biology	4
BIO 105	Heredity, Evolution and Society	3
BIO 110	Introduction to Biology and Society	4
BIO 115	Fundamentals of Cellular Biology	4
BIO 116	Fundamentals of Organismal Biology	4
BIO 120	Plants and Society	4
BIO 135	Introduction to Human Anatomy and Physiology	4
BIO 136	Introduction to Human Disease	3
BIO 140	Animals and Society	4
BIO 230	Microbiology	4
BIO 260	Human Anatomy	4
BIO 261	Human Physiology	4
Chemistry		
CHM 100	Chemistry for the Health Sciences	4
CHM 103	The Chemistry Connection	4
CHM 105	Chemical World	4
CHM 110	Fundamentals of Chemistry	4
CHM 121	General Chemistry I	5
CHM 122	General Chemistry II	5
CHM 201	Basic Organic Chemistry	4
CHM 204	Organic Chemistry I	5
CHM 205	Organic Chemistry II	5
CHM 210	Analytical Chemistry	5
CHM 220	Biochemistry	4
Earth Science		
ESC 100	Rocks and Minerals Survey	3
ESC 101	Earth Science Survey	3
ESC 110	Exploring the Earth and Universe	4
ESC 111	Physical Geology	4
ESC 112	Dinosaurs, Fossils and Planet Earth	4
ESC 113	Environmental Geology	4
ESC 121	Introduction to Meteorology	4
Geography		
GEG 111	Physical Geography	3
GEG 112	Physical Geography Laboratory	1
Nutrition		
NTR 101	Fundamentals of Nutrition	3
Physics		
PHY 100	Basic Concepts in Physics	3
PHY 110	Introduction to Physics	4
PHY 112	Energy and Society	4
PHY 121	Introductory Physics I	5
PHY 122	Introductory Physics II	5
PHY 201	General Physics I-Mechanics	5
PHY 202	General Physics II-Electricity and Magnetism	5
PHY 203	General Physics III-Thermal and Quantum Physics	5

Social and Behavioral Sciences

Code	Title	Hours
Anthropology		
ANT 101	Introduction to Anthropology [+]	3
ANT 202	Cultural Anthropology [+]	3
ANT 205	Physical Anthropology	3
ANT 206	Archeology [+]	3
ANT 215	Introduction to Forensic Anthropology	3
ANT 220	Topics in Anthropology	1-6
Capstone		
CAP 201	Social Transformation Capstone	1-3
Economics		
ECO 115	Consumer Economics	3
ECO 200	Introduction to Economics [+]	3
ECO 211	Microeconomics	3
ECO 212	Macroeconomics	3
Education		
EDU 211	Educational Psychology	3
Geography		
GEG 100	Cultural Geography [+]	3
GEG 101	World Regional Geography [+]	3
GEG 103	The Developing World [+]	3
GEG 104	The Developed World [+]	3

Geographic Information Systems

GIS 100	Introduction to Geospatial Technologies	3

Health Education

HED 202	Human Sexuality [+]	3

Linguistics

LNG 205	Language and Culture [+]	3
LNG 225	Language and Health [+]	3

Political Science

PSC 101	American Politics and Government	3
PSC 220	State and Local Government in the U.S.	3
PSC 250	Comparative Politics [+]	3
PSC 270	Global Politics [+]	3
PSC 280	Non-Western Comparative Politics [+]	3

Psychology

PSY 101	Introduction to Psychology [+]	3
PSY 107	Humanistic Psychology:Personal Growth	3
PSY 108	Topics in Psychology	2-3
PSY 210	Introduction to Research in Psychology	3
PSY 216	Child Psychology I	3
PSY 217	Adolescent Psychology	3
PSY 218	Adult Psychology	3
PSY 220	Biological Basis of Behavior	3
PSY 225	Theories of Personality	3
PSY 228	Psychology of Human Development	3
PSY 230	Abnormal Psychology	3
PSY 245	Industrial/Organizational Psychology	3

Sociology

SOC 101	Introduction to Sociology [+]	3
SOC 120	Family in Contemporary Society [+]	3
SOC 205	Social Problems [+]	3
SOC 215	Introduction to Social Psychology [+]	3
SOC 220	Topics in Social Science	1-6
SOC 230	Sociology of Sex and Gender [+]	3
SOC 235	Race and Ethnicity [+]	3

+ Meets the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

Accounting Associate (AAS)

Business & Information Technology

Program website (https://www.harpercollege.edu/academics/business/accounting/accounting-associate-degree.php)

Program Overview

This 61 credit-hour program is designed to prepare students for employment as junior accountants in business, industry and government.

The curriculum includes the study of accounting theory and practice, corporation accounting, and cost accounting. Required business course work provides for an overview of the corporate community and includes economics, business law and management classes. Computer information skills are essential to today's accountants and are also required in this degree.

Program Requirements

First Semester		Hours
ACC 101	Introduction to Financial Accounting	4
ENG 101	Composition I	3
Mathematics [1]		3
MGT 111	Introduction to Business Organization	3
CAS 115	Spreadsheet Software	1
CAS 215	Advanced Spreadsheet Software	1
	Hours	**15**
Second Semester		
AAS General Education elective(s) (p. 60) [+]		6
ACC 102	Introduction to Managerial Accounting	3
ACC 112	Quickbooks	2
ACC 155	Payroll Accounting	2
ECO 211 or ECO 212	Microeconomics or Macroeconomics	3
	Hours	**16**
Third Semester		
ACC 201	Intermediate Accounting I	3
ACC 211	Business Law I	3
ACC 250	Individual Tax Accounting	3
Accounting elective(s) (p. 64)		3
Business elective(s) (p. 64)		3
	Hours	**15**
Fourth Semester		
AAS General Education elective(s) (p. 60) [+]		3
ACC 203	Cost Accounting	3
Accounting elective(s) (p. 64)		6
Business elective(s) (p. 64)		3
	Hours	**15**
	Total Hours	**61**

[1] The mathematics requirement for this degree can be met with Math Competency, or MGT 150 (Business Math). See Math Competency options (https://www.harpercollege.edu/testing/docs/math-competency-options.php) for information. Students who utilize Math Competency to meet the mathematics requirement must complete

an additional three credit-hour elective. See full list of AAS General Education electives (p. 60).

[+] At least one of the AAS General Education Elective requirements must also meet the World Cultures and Diversity graduation requirement. See full list of AAS General Education electives (p. 60).

Accounting Electives

(students must satisfy prerequisite for each course elected)

Code	Title	Hours
ACC 202	Intermediate Accounting II	3
ACC 251	Business Tax Accounting	3
ACC 253	Advanced Accounting I	3
ACC 254	Auditing	3
ACC 265	Fraud Examination	3
ACC 257	Ethics and Tax Practices	3
ACC 295	Topics in Accounting (limit 4 hours)	1-4

Business Electives

(students must satisfy prerequisite for each course elected)

Code	Title	Hours
ACC 213	Legal Environment of Business	3
CIS 101	Introduction to Computer Information Systems	3
FIN 215	Financial Statements Interpretation and Analysis	3
MGT 205	Leadership	3
MGT 218	Introduction to Finance	3
MGT 270	Principles of Management	3
MGT 280	Organizational Behavior	3
MKT 245	Principles of Marketing	3
PHI 150	Business Ethics	3

Accounting Assistant (Certificate)

Business & Information Technology

Program website (https://www.harpercollege.edu/academics/business/accounting/accounting-assistant-certificate.php)

Program Overview

This 28 credit-hour certificate program is designed for persons interested in pursuing careers as junior accountants in business, government and industry. There is an acute shortage of persons with the training needed to be successful in accounting.

Program Requirements

Code	Title	Hours
Required		
ACC 101	Introduction to Financial Accounting	4
ACC 102	Introduction to Managerial Accounting	3
ACC 112	Quickbooks	2
ACC 155	Payroll Accounting	2
CAS 115	Spreadsheet Software	1
CAS 215	Advanced Spreadsheet Software	1
ENG 101 or ENG 130	Composition I or Business Writing	3

MGT 111	Introduction to Business Organization	3
Electives		
Select any three courses from the following:		9
ACC 201	Intermediate Accounting I	
ACC 202	Intermediate Accounting II	
ACC 203	Cost Accounting	
ACC 250	Individual Tax Accounting	
ACC 251	Business Tax Accounting	
ACC 253	Advanced Accounting I	
ACC 254	Auditing	
ACC 265	Fraud Examination	
Total Hours		**28**

Accounting Bookkeeper/Clerk (Certificate)

Business & Information Technology

Program website (https://www.harpercollege.edu/academics/business/accounting/accounting-bookkeeper-clerk-certificate.php)

Program Overview

This 7 credit-hour certificate program will provide the student with the courses needed for an entry-level position in this particular area.

Program Requirements

Code	Title	Hours
Required		
ACC 100	Introductory Accounting	3-4
or ACC 101	Introduction to Financial Accounting	
ACC 112	Quickbooks	2
CAS 115	Spreadsheet Software	1
CAS 215	Advanced Spreadsheet Software	1
Total Hours		**7-8**

Advanced Accounting Bookkeeper/Clerk (Certificate)

Business & Information Technology

Program website (https://www.harpercollege.edu/academics/business/accounting/advanced-accounting-bookkeeper-clerk-certificate.php)

Program Overview

This 19 credit-hour certificate program will provide the student with the courses needed for an entry-level position in such areas as accounts payable, accounts receivable and inventory accounting.

Program Requirements

Code	Title	Hours
Required		
ACC 101	Introduction to Financial Accounting	4
ACC 102	Introduction to Managerial Accounting	3
ACC 112	Quickbooks	2

ACC 155	Payroll Accounting	2
CAS 115	Spreadsheet Software	1
CAS 215	Advanced Spreadsheet Software	1
ENG 101	Composition I	3
or ENG 130	Business Writing	
MGT 111	Introduction to Business Organization	3
Total Hours		**19**

Professional Accounting - CPA Preparation (Certificate)

Business & Information Technology

Program website (https://www.harpercollege.edu/academics/business/accounting/professional-accounting-cpa-prep.php)

Program Overview

This 24 credit-hour certificate is designed to provide individuals with the necessary accounting courses to qualify for the Certified Public Accountant (CPA) exam. The program is intended for individuals who already have a bachelor's degree and wish to transition to a career in the field of accounting.

To qualify for the CPA exam, a candidate must have a bachelor's degree and a total of 120 semester hours of credit, including 12 hours in business and a minimum of 24 hours in accounting. The 12 hours in business must include two hours in business communication (ENG 130) and three hours in business ethics (ACC 257, or PHI 150). Additionally, it is strongly recommended that the 12 business hours include at least three hours in business law. At Harper, ACC 211 and ACC 213 are available. The Illinois Board of Examiners provides more detailed information on educational requirements at www.ilboe.org (https://www.ilboe.org/). Harper will accept up to 12 credit hours in equivalent courses from regionally accredited institutions.

Requirements for the Illinois CPA Certificate

To sit for the CPA examination in Illinois effective January 1, 2023, the candidate must have a total of 120 hours of acceptable college-level education including at least a bachelor's degree. Twenty-four semester hours must be in accounting. An additional 12 hours in business courses are required, including two hours in business communications and three hours in business ethics. (Business Law is also included in the business requirements).

At Harper College, acceptable accounting courses include: ACC 101, ACC 102, ACC 201, ACC 202, ACC 203, ACC 211, ACC 251, ACC 253, ACC 254, ACC 257, ACC 260, ACC 261, ACC 280, ACC 281, ACC 282, ACC 283.

A wide variety of business courses are offered including ACC 211, ACC 213, CIS 101, ECO 211, ECO 212, FIN 215, MGT 111, MGT 218, MGT 270, MTH 124, MTH 225, PHI 150.

[Requirements for the Illinois CMA Certificate:

The Certified Management Accountant (CMA) is a national program with no state affiliates. The candidate must have senior standing at an accredited college or university, or must hold a baccalaureate degree, in any field, or have passed the U.S. CPA examination. Anyone who has

passed the U.S. CPA examination is given credit for part two of the CMA examination.]

Program Requirements

Code	Title	Hours
Required		
ACC 201	Intermediate Accounting I	3
ACC 202	Intermediate Accounting II	3
ACC 203	Cost Accounting	3
ACC 250	Individual Tax Accounting	3
ACC 251	Business Tax Accounting	3
ACC 254	Auditing	3
Electives		
Select 6 credit hours:		6
ACC 253	Advanced Accounting I	
ACC 257	Ethics and Tax Practices	
ACC 260	Financial Research	
ACC 261	Tax Research	
ACC 265	Fraud Examination	
ACC 280	CPA Review Course/Business Environmental Concepts	
ACC 281	CPA Review Course/Audit and Attestation (AUD)	
ACC 282	CPA Review Course/Financial Accounting and Reporting	
ACC 283	CPA Review Course/Regulation	
Total Hours		**24**

Tax Accounting Assistant (Certificate)

Business & Information Technology

Program website (https://www.harpercollege.edu/academics/business/accounting/tax-accounting-assistant-certificate.php)

Program Overview

This 17 credit-hour certificate program provides students with a basic understanding of tax law and tax procedures. The certificate includes coursework needed to obtain an entry-level position in national "chain" tax preparation companies as well as in CPA and accounting firms.

Program Requirements

Code	Title	Hours
Required		
ACC 101	Introduction to Financial Accounting	4
ACC 250	Individual Tax Accounting	3
ACC 251	Business Tax Accounting	3
ACC 257	Ethics and Tax Practices	3
ACC 261	Tax Research	1
or ACC 283	CPA Review Course/Regulation	
ENG 130	Business Writing	3
Total Hours		**17**

Aviation Management (AAS)

Business & Information Technology

Program website (https://www.harpercollege.edu/academics/business/aviation-management/aviation-management-degree.php)

Program Overview

This 60 credit-hour program is designed to provide students with a sound understanding of the managerial requirements, qualifications, and procedures of the various available roles in aviation and will prepare students for management positions within the aviation industry. This program will provide support in the development and growth of students who are currently in and/or seeking to enter the aviation industry. Students will work with people, processes and information that is required to develop a broad set of skills needed to build a successful career in aviation management.

Program Requirements

First Semester		Hours
AVM 100	Introduction to Aviation Management	3
AVM 107	History of Aviation	3
AVM 112	Aviation Security Management	3
ENG 101	Composition I	3
MTH 100	Applied Math for Technical Careers [1]	3
	Hours	**15**
Second Semester		
AVM 211	Aviation Management II	3
AVM 214	Aviation Safety Management and Regulations	3
AVM 222	Airport Planning and Management	3
GIS 100	Introduction to Geospatial Technologies	3
SCM 101	Supply Chain Management	3
	Hours	**15**
Third Semester		
AVM 221	Air Traffic Control Systems	3
AVM 226	Aircraft Maintenance Management	3
SCM 123	Transportation	3
SOC 101	Introduction to Sociology [+]	3
AAS General Education elective(s) (p. 60) [2]		3
	Hours	**15**
Fourth Semester		
AVM 203	Aviation Career Preparation	3
AVM 232	Civil Aviation	3
AVM 234	Aviation Human Factors and Safety	3
AVM 239	Transportation Labor Relations	3
MGT 205	Leadership	3
	Hours	**15**
	Total Hours	**60**

[1] The mathematics requirement for this degree can be met with Math Competency. See Math Competency options (https://www.harpercollege.edu/testing/docs/math-competency-options.php)for information for information. Students who use Math Competency to meet the mathematics requirement must complete an additional three credit-hour AAS General Education Elective. See full list of AAS General Education Electives. (https://www.harpercollege.edu/catalog/current/programs/aas-general-education-electives.php)

[+] This course meets the World Culture and Diversity graduation requirement.

[2] See full list of AAS General Education Electives (p. 60).

Business Administration - Financial Management (AAS)

Business & Information Technology

Program website (https://www.harpercollege.edu/academics/business/business-administration/)

Option 1: Business Administration Degree - Financial Management

Program Overview

This 61 credit-hour degree program is designed for those currently employed in or seeking employment in finance departments, banks, investment companies or other finance-related enterprises. The curriculum emphasizes developing the competencies necessary for supervisory and public contact positions in the finance field.

This degree is shown in a standardized sequential semester option. However, it available as fast track modality, apprenticeships and online options as well. Please contact an advisor to get the most current scheduling. This degree plan is one of six options that students may pursue to earn the Business Management Associate in Applied Science (AAS) degree. While there are multiple specializations, this particular degree can be awarded only once.

Program Requirements

First Semester		Hours
ENG 101	Composition I	3
FIN 101	Financial Institution Operations	3
MGT 111 or MGT 154	Introduction to Business Organization [1] or Entrepreneurship	3
MGT 150	Business Math [2]	3
PSY 101	Introduction to Psychology [+]	3
	Hours	**15**
Second Semester		
ACC 101	Introduction to Financial Accounting	4
CIS 100 or CIS 101	Computer and Digital Literacy or Introduction to Computer Information Systems	3
FIN 200	Investment Management/Personal Finance	3
MKT 245	Principles of Marketing	3
PSY 245	Industrial/Organizational Psychology	3
	Hours	**16**
Third Semester		
ACC 102	Introduction to Managerial Accounting	3
Select one of the following: [3]		3
ECO 200	Introduction to Economics	
ECO 211	Microeconomics	
ECO 212	Macroeconomics	
ENG 130 or SPE 101	Business Writing [4] or Fundamentals of Speech Communication	3
MGT 218	Introduction to Finance	3
MGT 270	Principles of Management	3
	Hours	**15**

Fourth Semester		
ACC 211	Business Law I	3
FIN 215	Financial Statements Interpretation and Analysis	3
FIN 225	International Finance	3
Humanities [5]		3
MGT 165	Global Business [+]	3
	Hours	**15**
	Total Hours	**61**

[1] MGT 111 is recommended.

[2] The mathematics requirement for this degree can be met with Math Competency. See Math Competency options (https://www.harpercollege.edu/testing/docs/math-competency-options.php) for information. Students who utilize Math Competency to meet the mathematics requirement must complete an additional three credit-hour elective. See full list of AAS General Education electives (p. 60).

[+] This course meets the World Cultures and Diversity graduation requirement.

[3] ECO 200 is recommended.

[4] If pursuing a fully online degree, choose ENG 130; otherwise choose SPE 101.

[5] PHI 150 is recommended.

Business Administration - Human Resources Management (AAS)

Business & Information Technology

Program website (https://www.harpercollege.edu/academics/business/business-administration/)

Option 2: Business Administration Degree - Human Resources Management

Program Overview

This 61 credit-hour degree program is designed to assist students in a wide variety of business occupations. The curriculum is structured to meet the needs of individuals interested in gaining or improving business knowledge and management skills. The program develops abilities that will help organize, coordinate and evaluate the functions of the Human Resources Department or branch of an organization in either an industrial or administrative management capacity. This degree also provides the fundamental management skills needed by the successful owner-manager of a business.

This degree is shown in a standardized sequential semester option. However, it available as fast track modality, apprenticeships and online options as well. Please contact an advisor to get the most current scheduling. This degree plan is one of six options that students may pursue to earn the Business Management Associate in Applied Science (AAS) degree. While there are multiple specializations, this particular degree can be awarded only once.

Program Requirements

First Semester		Hours
ENG 101	Composition I	3
Humanities [1]		3
MGT 111 or MGT 154	Introduction to Business Organization [2] or Entrepreneurship	3
MGT 150	Business Math [3]	3
PSY 101	Introduction to Psychology [+]	3
	Hours	**15**
Second Semester		
ACC 101	Introduction to Financial Accounting	4
ACC 216	Employment Law	3
CIS 100 or CIS 101	Computer and Digital Literacy or Introduction to Computer Information Systems	3
MGT 165	Global Business [+]	3
MGT 265	Human Resources Management	3
	Hours	**16**
Third Semester		
ACC 102 or PSY 245	Introduction to Managerial Accounting [4] or Industrial/Organizational Psychology	3
Select one of the following: [5]		3
ECO 200	Introduction to Economics	
ECO 211	Microeconomics	
ECO 212	Macroeconomics	
ENG 130 or SPE 101	Business Writing [6] or Fundamentals of Speech Communication	3
MGT 204	Training and Development	3
MGT 270	Principles of Management	3
	Hours	**15**
Fourth Semester		
ACC 211	Business Law I	3
MGT 218	Introduction to Finance	3
MGT 266	Employee Compensation and Benefits	3
MGT 280	Organizational Behavior	3
MKT 245	Principles of Marketing	3
	Hours	**15**
	Total Hours	**61**

[1] PHI 150 is recommended.

[2] MGT 111 is recommended.

[3] The mathematics requirement for this degree can be met with Math Competency. See Math Competency options (https://www.harpercollege.edu/testing/docs/math-competency-options.php) for information. Students who utilize Math Competency to meet the mathematics requirement must complete an additional three credit-hour elective. See full list of AAS General Education electives (p. 60).

[+] This course meets the World Cultures and Diversity graduation requirement.

[4] ACC 102 is recommended.

[5] ECO 211 is recommended.

[6] If pursuing a fully online degree, choose ENG 130; otherwise choose SPE 101.

Business Administration - Insurance (AAS)

Business & Information Technology

Program website (https://www.harpercollege.edu/academics/business/business-administration/)

Option 3: Business Administration Degree – Insurance

Program Overview

This 61 credit-hour degree program is designed to assist students who are either exploring an insurance career or are in the insurance field looking to expand their managerial and business skills. Students will gain knowledge and practical skills in property, liability, commercial and personal insurance as they earn industry certification.

This degree is shown in a standardized sequential semester option. However, it available as fast track modality, apprenticeships and online options as well. Please contact an advisor to get the most current scheduling. This degree plan is one of six options that students may pursue to earn the Business Management Associate in Applied Science (AAS) degree. While there are multiple specializations, this particular degree can be awarded only once.

Program Requirements

First Semester		Hours
ENG 101	Composition I	3
INS 110	Insurance Fundamentals	3
MGT 111 or MGT 154	Introduction to Business Organization [1] or Entrepreneurship	3
MGT 150	Business Math [2]	3
PSY 101	Introduction to Psychology [+]	3
	Hours	**15**
Second Semester		
ACC 101	Introduction to Financial Accounting [3]	4
CIS 100 or CIS 101	Computer and Digital Literacy or Introduction to Computer Information Systems	3
Humanities [4]		3
INS 120	Property and Liability Insurance Principles	3
PSY 245	Industrial/Organizational Psychology	3
	Hours	**16**
Third Semester		
Select one of the following:		3
ACC 102	Introduction to Managerial Accounting	
MGT 165	Global Business [+]	
ECO 211	Microeconomics	3
ENG 130 or SPE 101	Business Writing [5] or Fundamentals of Speech Communication	3
INS 220	Personal Insurance	3

MGT 270	Principles of Management	3
	Hours	**15**
Fourth Semester		
ACC 211	Business Law I	3
ECO 212	Macroeconomics	3
INS 240	Commercial Insurance	3
MGT 218	Introduction to Finance	3
MKT 245	Principles of Marketing	3
	Hours	**15**
	Total Hours	**61**

1 MGT 111 is recommended.
2 The mathematics requirement for this degree can be met with Math Competency. See Math Competency options (https://www.harpercollege.edu/testing/docs/math-competency-options.php) for information. Students who utilize Math Competency to meet the mathematics requirement must complete an additional three credit-hour elective. See full list of AAS General Education electives (p. 60).
3 Students should strongly consider enrolling in ACC 102 as well.
4 If MGT 165 is taken, then PHI 150 is recommended.
+ This course meets the World Cultures and Diversity graduation requirement.
5 If pursuing a fully online degree, choose ENG 130; otherwise choose SPE 101.

Business Administration - Management (AAS)

Business & Information Technology

Program website (https://www.harpercollege.edu/academics/business/business-administration/)

Option 4: Business Administration Degree – Management

Program Overview

This 61 credit-hour program is designed to assist students in a wide variety of business occupations. The curriculum is structured to meet the needs of individuals interested in gaining or improving business knowledge and management skills. The program develops abilities that will help organize, coordinate and evaluate the functions of a unit, department or branch of an organization in either an industrial or administrative management capacity. This degree also provides the fundamental management skills needed by the successful owner-manager of a business.

This degree is shown in a standardized sequential semester option. However, it available as fast track modality, apprenticeships and online options as well. Please contact an advisor to get the most current scheduling. This degree plan is one of six options that students may pursue to earn the Business Management Associate in Applied Science (AAS) degree. While there are multiple specializations, this particular degree can be awarded only once.

Program Requirements

First Semester		Hours
ENG 101	Composition I	3
Humanities [1]		3
MGT 111 or MGT 154	Introduction to Business Organization [2] or Entrepreneurship	3
MGT 150	Business Math [3]	3
PSY 101	Introduction to Psychology [+]	3
	Hours	**15**
Second Semester		
ACC 101	Introduction to Financial Accounting [4]	4
CIS 100 or CIS 101	Computer and Digital Literacy or Introduction to Computer Information Systems	3
MGT 165	Global Business [+]	3
MGT 265	Human Resources Management	3
MGT 280	Organizational Behavior	3
	Hours	**16**
Third Semester		
ACC 102 or PSY 245	Introduction to Managerial Accounting [5] or Industrial/Organizational Psychology	3
Select one of the following: [6]		3
ECO 200	Introduction to Economics	
ECO 211	Microeconomics	
ECO 212	Macroeconomics	
ENG 130 or SPE 101	Business Writing [7] or Fundamentals of Speech Communication	3
Select one of the following:		3
MGT 205	Leadership	
Management elective(s) (p. 71) or Business Adminsitration elective(s) (p. 71)		
MGT 270	Principles of Management	3
	Hours	**15**
Fourth Semester		
ACC 211	Business Law I	3
ACC 216	Employment Law	3
MGT 218	Introduction to Finance	3
MGT 291	Strategic Management [8]	3
MKT 245	Principles of Marketing	3
	Hours	**15**
	Total Hours	**61**

1 PHI 150 (Business Ethics) is recommended.
2 MGT 111 is recommended.
3 The mathematics requirement for this degree can be met with Math Competency. See Math Competency options (https://www.harpercollege.edu/testing/docs/math-competency-options.php) for information. Students who utilize Math Competency to meet the mathematics requirement must complete an additional three credit-hour elective. See full list of AAS General Education electives (p. 60).
+ This course meets the World Cultures and Diversity graduation requirement.
4 Students should strongly consider enrolling in ACC 102 as well.

[5] ACC 102 is recommended.
[6] ECO 211 is recommended.
[7] If pursuing a fully online degree, choose ENG 130; otherwise choose SPE 101.
[8] This course is considered the program's capstone and should be taken at the end of student's course work.

Management Electives

Code	Title	Hours
FIN 101	Financial Institution Operations	3
INS 110	Insurance Fundamentals	3
MGT 154	Entrepreneurship	3
MKT 140	Principles of Professional Selling	3
MKT 217	Advertising	3
MKT 247	Consumer Buying Behavior	3
MKT 281	Internship in Marketing	1-3
MKT 285	Topics in Marketing	0.5-3
SCM 101	Supply Chain Management	3
SCM 120	Production Control	3
SCM 281	Topics in Supply Chain Management	1-3

Business Administration Electives

Code	Title	Hours
ACC 216	Employment Law	3
MCM 150	Social Media Management and Measurement	3
MCM 233	Introduction to Public Relations	3
MGT 165	Global Business	3
MGT 170		3
MGT 204	Training and Development	3
MGT 205	Leadership	3
MGT 211	Management Internship	1-3
MGT 266	Employee Compensation and Benefits	3
MKT 105	Sports Marketing	3
MKT 106	Retail Merchandising	3
MKT 243	Social Commerce and Sales	3
MKT 252	Internet Marketing	3
MKT 285	Topics in Marketing	0.5-3
SCM 122	Inventory Management	3
SCM 123	Transportation	3
SCM 124	Warehouse Operations	3
SCM 125	Procurement	3
SCM 226	Advanced Planning and Integration	3
SCM 259	Sourcing and Supply Management	3

Business Administration - Customer Success and Sales (AAS)

Business & Information Technology

Program website (https://www.harpercollege.edu/academics/business/business-administration/)

Option 5: Business Administration Degree – Customer Success and Sales

Program Overview

This 61 credit-hour program is designed to assist students in a wide variety of business occupations. The curriculum is structured to meet the needs of individuals interested in gaining or improving business knowledge and management skills. The program develops abilities that will help organize, coordinate and evaluate the functions of a unit, department or branch of an organization in either an industrial or administrative management capacity. This degree also provides the fundamental management skills needed by the successful owner-manager of a business.

This degree is shown in a standardized sequential semester option. However, it available as fast track modality, apprenticeships and online options as well. Please contact an advisor to get the most current scheduling. This degree plan is one of six options that students may pursue to earn the Business Management Associate in Applied Science (AAS) degree. While there are multiple specializations, this particular degree can be awarded only once.

Program Requirements

First Semester		Hours
ENG 101	Composition I	3
Humanities [1]		3
MGT 111 or MGT 154	Introduction to Business Organization [2] or Entrepreneurship	3
MGT 150	Business Math [3]	3
PSY 101	Introduction to Psychology [+]	3
	Hours	**15**
Second Semester		
ACC 101	Introduction to Financial Accounting	4
CIS 100 or CIS 101	Computer and Digital Literacy or Introduction to Computer Information Systems	3
MGT 165 or PSY 245	Global Business [4] or Industrial/Organizational Psychology	3
MKT 140	Principles of Professional Selling	3
MKT 146	Customer Service Skills for Success	3
	Hours	**16**
Third Semester		
ACC 102	Introduction to Managerial Accounting	3
Select one of the following: [5]		3
ECO 200	Introduction to Economics	
ECO 211	Microeconomics	
ECO 212	Macroeconomics	
ENG 130 or SPE 101	Business Writing [6] or Fundamentals of Speech Communication	3
MGT 270	Principles of Management	3
MKT 147	Salesforce: Customer Relationship Management	3
	Hours	**15**
Fourth Semester		
ACC 211	Business Law I	3

MGT 218	Introduction to Finance	3
MKT 180	Strategic Communication for a Digital World	3
MKT 243	Social Commerce and Sales	3
MKT 245	Principles of Marketing	3
	Hours	**15**
	Total Hours	**61**

[1] PHI 150 is recommended.

[2] MGT 111 is recommended.

[3] The mathematics requirement for this degree can be met with Math Competency. See Math Competency options (https://www.harpercollege.edu/testing/docs/math-competency-options.php) for information. Students who utilize Math Competency to meet the mathematics requirement must complete an additional three credit-hour elective. See full list of AAS General Education electives (p. 60).

[+] This course meets the World Cultures and Diversity graduation requirement.

[4] MGT 165 is recommended.

[5] ECO 200 is recommended.

[6] If pursuing a fully online degree, choose ENG 130; otherwise choose SPE 101.

Business Administration - Social Media Specialist (AAS)

Business & Information Technology

Program website (https://www.harpercollege.edu/academics/business/business-administration/)

Option 6: Business Administration Degree – Social Media Specialist
Program Overview

This 61 credit-hour program is designed to assist students in a wide variety of business occupations. The curriculum is structured to meet the needs of individuals interested in gaining or improving business knowledge and management skills. The program develops abilities that will help organize, coordinate and evaluate the functions of a marketing department or branch of an organization in either an industrial or administrative management capacity. This degree also provides the fundamental management skills needed by the successful owner-manager of a business.

This degree is shown in a standardized sequential semester option. However, it available as fast track modality, apprenticeships and online options as well. Please contact an advisor to get the most current scheduling. This degree plan is one of six options that students may pursue to earn the Business Administration Associate in Applied Science (AAS) degree. While there are multiple specializations, this particular degree can be awarded only once.

Program Requirements

First Semester		Hours
ENG 101	Composition I	3
MCM 150	Social Media Management and Measurement	3
MGT 150	Business Math [1]	3
MGT 154 or MGT 111	Entrepreneurship [2] or Introduction to Business Organization	3
PSY 101	Introduction to Psychology [+]	3
	Hours	**15**
Second Semester		
ACC 101	Introduction to Financial Accounting	4
CIS 100 or CIS 101	Computer and Digital Literacy or Introduction to Computer Information Systems	3
Humanities [3]		3
MKT 217	Advertising	3
MKT 245	Principles of Marketing	3
	Hours	**16**
Third Semester		
ACC 102 or PSY 245	Introduction to Managerial Accounting [4] or Industrial/Organizational Psychology	3
Select one of the following: [5]		3
ECO 200	Introduction to Economics	
ECO 211	Microeconomics	
ECO 212	Macroeconomics	
MGT 165	Global Business [+]	3
MGT 270	Principles of Management	3
MKT 180	Strategic Communication for a Digital World	3
	Hours	**15**
Fourth Semester		
ACC 211	Business Law I	3
MCM 233	Introduction to Public Relations	3
MGT 218	Introduction to Finance	3
MKT 252	Internet Marketing	3
MKT 243	Social Commerce and Sales	3
	Hours	**15**
	Total Hours	**61**

[1] The mathematics requirement for this degree can be met with Math Competency. See Math Competency options (https://www.harpercollege.edu/testing/docs/math-competency-options.php) for information. Students who utilize Math Competency to meet the mathematics requirement must complete an additional three credit-hour elective. See full list of AAS General Education electives (p. 60).

[2] MGT 154 is recommended.

[+] This course meets the World Cultures and Diversity graduation requirement.

[3] PHI 150 is recommended.

[4] ACC 102 is recommended.

[5] ECO 200 is recommended.

Cannabis Science and Therapeutics (Certificate)

Health Science

Program website (https://www.harpercollege.edu/academics/health/cannabis/cannabis-science-certificate.php)

Program Overview

This 17 credit-hour certificate program consists of lecture presentations, and an internship arranged at local non-profit organizations within the cannabis industry. This certificate is useful for individuals planning to enter the cannabis industry. In addition to history, policy and laws related to cannabis, the certificate presents best practices in cannabis dispensary operations, and cannabis therapeutics. Students will also learn about the importance of advocacy within the cannabis industry.

As an emerging industry, there are many diverse employment opportunities related to cannabis. Cannabis cultivation, sales, infusion, and product development represent a few of the commonly sought-after cannabis careers.

Program Requirements

Code	Title	Hours
Required		
CNB 101	Introduction to Cannabis	3
CNB 102	Cannabis Law and Policy	3
CNB 104	Cannabis Pharmacology	3
CNB 105	Dispensary Operations	3
CNB 110	Cannabis Therapeutics and Client Communication	3
CNB 112	Dispensary Advocacy Internship	2
Total Hours		**17**

Information Systems (AAS)

Business & Information Technology

Program website (https://www.harpercollege.edu/academics/business/info-systems/information-systems-degree.php)

Program Overview

The 60 credit-hour curriculum prepares students for various data analysis, data management, software, and web development positions in the field of information systems, or transfer to a four-year institution. Students take courses in information systems, software development, web development, and general education.

Program Requirements

First Semester		Hours
CAS 160	Introduction to Business Software Packages	3
CIS 101	Introduction to Computer Information Systems	3
CIS 106	Computer Logic and Programming Technology	3
ENG 101	Composition I	3
Mathematics [1]		3
	Hours	**15**
Second Semester		
CIS 143	Introduction to Database Systems	3
CIS 206 or CSC 121	Applied Programming or Computer Science I	4
ENG 102	Composition II [2]	3
Information Systems elective(s) (p. 74)		3
WEB 110 or WEB 150	Internet Fundamentals or Web Foundations	3
	Hours	**16**
Third Semester		
Information Systems elective(s) (p. 74)		8
NET 121 or NET 122	Computer Networking or Internet Protocols	3
SPE 101	Fundamentals of Speech Communication [2]	3
	Hours	**14**
Fourth Semester		
CIS 211	IT Project Management	3
CIS 245	Data Analysis	3
Information Systems elective(s) (p. 74)		6
SOC 101	Introduction to Sociology [+]	3
	Hours	**15**
	Total Hours	**60**

[1] Students must take at least three credit hours in a mathematics course at the level of MTH 103 or above. MTH 165 or MTH 225 is recommended.

[2] Students who have previously completed another course which satisfies AAS General Education electives (p. 60) requirements should contact the CIS coordinator before taking this course.

[+] This course meets the World Culture and Diversity graduation requirement.

Information Systems Electives

Students must take a combination of at least 16 credit hours, selected from any of the following:

Business Emphasis

Code	Title	Hours
ACC 100	Introductory Accounting	3
ACC 101	Introduction to Financial Accounting	4
ACC 102	Introduction to Managerial Accounting	3
MGT 111	Introduction to Business Organization	3

Information Systems Emphasis

Code	Title	Hours
CIS 206	Applied Programming	4
CIS 216	Applied Object-Oriented Programming	4
CIS 220	Topics in Computer Information Systems	1-6

Computer Science and Mathematics

Code	Title	Hours
CSC 122	Computer Science II	4
CSC 214	Java Programming	4
CSC 216	Data Structures and Algorithm Analysis	4
CSC 217	Assembler Programming and Machine Organization	4
MTH 124	Finite Mathematics	3
MTH 134	Calculus for Business and Social Sciences	4
MTH 200	Calculus I	5
MTH 220	Discrete Mathematics	3
MTH 225	Business Statistics	4

Networking and Information Assurance Emphasis

Code	Title	Hours
NET 240	Linux Server Administration	3
NET 260	Windows Server Administration	3
NET 270	Cisco Networking	3
NET 280	Cybersecurity Fundamentals	3

Students pursuing the Networking and Information Assurance emphasis must complete NET 121 in the second semester and move WEB110/WEB 150 to the third semester.

Life Skills Emphasis

Code	Title	Hours
FYS 101	First Year Seminar	1-3

Web Development Emphasis

Code	Title	Hours
WEB 110	Internet Fundamentals	3
WEB 150	Web Foundations	3
WEB 200	Web Scripting Foundations	3
WEB 235	Interactive Scripting	3
WEB 250	Server-Side Scripting	3

Information Technology – Computer Support (AAS)

Business & Information Technology

Program website (https://www.harpercollege.edu/academics/business/info-systems/information-technology-degree.php)

Option 1: Information Technology Degree – Computer Support

Program Overview

The 60 credit-hour technical curriculum prepares students for various positions in the field of computer support. The student will take courses in computer information systems, networking and general education.

This sequenced degree plan is one of two options that students may pursue to earn the Information Technology Associate in Applied Science (AAS) degree. **While there are multiple specializations, this particular degree can be awarded only once.**

Program Requirements

First Semester		Hours
ENG 101	Composition I	3
Mathematics [1]		3
NET 105	Information Technology Fundamentals	3
NET 111	A+ Hardware	3
NET 112	A+ Operating Systems Technologies	3
	Hours	**15**
Second Semester		
CAS 160	Introduction to Business Software Packages	3
ENG 102	Composition II [2]	3
NET 121	Computer Networking	3
NET 201	Service Desk and Service Management	3
WEB 110 or WEB 150	Internet Fundamentals or Web Foundations	3
	Hours	**15**
Third Semester		
CIS 106	Computer Logic and Programming Technology	3
Computer Support elective(s) (p. 75)		3
NET 240	Linux Server Administration	3
NET 260	Windows Server Administration	3
SPE 101	Fundamentals of Speech Communication [2]	3
	Hours	**15**
Fourth Semester		
CAS 265	Advanced Business Software Packages	3
CIS 143	Introduction to Database Systems	3
Computer Support elective(s) (p. 75)		6
SOC 101	Introduction to Sociology [+]	3
	Hours	**15**
	Total Hours	**60**

[1] Students must take at least three credit hours at the level of MTH 101 or above. MTH 165 is recommended.

[2] Students who have previously completed another course which satisfies AAS General Education electives (p. 60) requirements should contact the CIS coordinator before taking this course.

[+] This course meets the World Cultures and Diversity graduation requirement.

Computer Support Electives

Students must take nine credit hours selected from:

Code	Title	Hours
CIS 101	Introduction to Computer Information Systems	3
CIS 137	Computer Internship I	3
CIS 211	IT Project Management	3
CIS 220	Topics in Computer Information Systems	1-6
FYS 101	First Year Seminar	1-3
MGT 111	Introduction to Business Organization	3
NET 122	Internet Protocols	3
NET 280	Cybersecurity Fundamentals	3

Information Technology – Network Administration (AAS)

Business & Information Technology

Program website (https://www.harpercollege.edu/academics/business/info-systems/information-technology-degree.php)

Option 2: Information Technology Degree – Network Administration

Program Overview

The 60 credit-hour technical curriculum prepares students for various positions in the field of information technology/computer networking.

This sequenced degree plan is one of two options that students may pursue to earn the Information Technology Associate in Applied Science (AAS) degree. **While there are multiple specializations, this particular degree can be awarded only once.**

Program Requirements

First Semester		Hours
ENG 101	Composition I	3
Mathematics [1]		3
NET 105	Information Technology Fundamentals	3
NET 111	A+ Hardware	3
NET 112	A+ Operating Systems Technologies	3
	Hours	**15**
Second Semester		
CAS 160	Introduction to Business Software Packages	3
ENG 102	Composition II [2]	3
NET 121	Computer Networking	3
NET 201	Service Desk and Service Management	3

WEB 110	Internet Fundamentals	3
or WEB 150	or Web Foundations	
	Hours	**15**
Third Semester		
CIS 106	Computer Logic and Programming Technology	3
NET 240	Linux Server Administration	3
NET 260	Windows Server Administration	3
Network Administration elective(s) (p. 76)		3
SPE 101	Fundamentals of Speech Communication [2]	3
	Hours	**15**
Fourth Semester		
NET 270	Cisco Networking	3
NET 280	Cybersecurity Fundamentals	3
NET 290	Cloud Computing	3
Network Administration elective(s) (p. 76)		3
SOC 101	Introduction to Sociology [+]	3
	Hours	**15**
	Total Hours	**60**

[1] Students must take at least three credit hours in a mathematics course at the level of MTH 101 or above. MTH 165 is recommended.

[2] Students who have previously completed another course which satisfies AAS General Education electives (p. 60) requirements should contact the CIS coordinator before taking this course.

[+] This course meets the World Culture and Diversity graduation requirement.

Network Administration Electives

Students must take six credit hours selected from:

Code	Title	Hours
CIS 101	Introduction to Computer Information Systems	3
CIS 137	Computer Internship I	3
CIS 143	Introduction to Database Systems	3
CIS 211	IT Project Management	3
CIS 220	Topics in Computer Information Systems	1-6
FYS 101	First Year Seminar	1-3
MGT 111	Introduction to Business Organization	3
NET 122	Internet Protocols	3

Administrative Assistant (Certificate)

Business & Information Technology

Program website (https://www.harpercollege.edu/academics/business/info-systems/administrative-assistant-certificate.php)

Program Overview

This 17 credit-hour certificate program prepares students for positions as business office administrative assistants. Students are introduced to advanced word processing and spreadsheets, to use of the Internet including Web browsing and e-mail, and to the integrated use of word processing, spreadsheet, and presentation software. Students are also introduced to computer skills and business management principles and to business writing. This certificate is the second in a two-certificate sequence: Office Assistant and Administrative Assistant.

Program Requirements

Code	Title	Hours
Select one of the following options: [1]		3
Option 1		
CAS 105 & CAS 115 & CAS 125	Word Processing Software and Spreadsheet Software and Database Software	
Option 2		
CAS 160	Introduction to Business Software Packages	
CAS 135	Presentation Software [2]	1
CAS 205	Advanced Word Processing Software [2]	1
CAS 215	Advanced Spreadsheet Software [2]	1
CAS 290	Office Assistant Capstone [2]	2
CIS 100	Computer and Digital Literacy	3
or CIS 101	Introduction to Computer Information Systems	
ENG 130	Business Writing [3]	3
MGT 111	Introduction to Business Organization	3
Total Hours		**17**

[1] These courses are included in the Office Assistant certificate. Students may take CAS 105, CAS 115 and CAS 125 **or** CAS 160 to satisfy this requirement.

[2] This course is included in the Office Assistant certificate.

[3] Placement test scores required.

Office Assistant (Certificate)

Business & Information Technology

Program website (https://www.harpercollege.edu/academics/business/info-systems/office-assistant-certificate.php)

Program Overview

This 8 credit-hour certificate program prepares students for positions as assistants in a business office. Students are introduced to advanced word processing and spreadsheets, to use of the Internet including Web browsing and e-mail, and to integrated use of word processing, spreadsheet, and presentation software. Students are also introduced to office skills such as time and records management and collaboration. This certificate is the first in a two-certificate sequence and may be followed by the Administrative Assistant certificate.

Program Requirements

Code	Title	Hours
Select one of the following options: [1]		3
Option 1		
CAS 105 & CAS 115 & CAS 125	Word Processing Software and Spreadsheet Software and Database Software	
Option 2		
CAS 160	Introduction to Business Software Packages	
CAS 135	Presentation Software	1
CAS 205	Advanced Word Processing Software	1

CAS 215	Advanced Spreadsheet Software	1
CAS 290	Office Assistant Capstone	2
Total Hours		**8**

[1] Students may take CAS 105, CAS 115 and CAS 125 **or** CAS 160 to satisfy this requirement.

Software Development (Certificate)

Business & Information Technology

Program website (https://www.harpercollege.edu/academics/business/info-systems/software-development-certificate.php)

Program Overview

This 23 credit-hour certificate program is designed to prepare students for business software development. The student will be prepared for an entry-level software development position.

Program Requirements

Code	Title	Hours
Required		
CAS 160	Introduction to Business Software Packages	3
CIS 101	Introduction to Computer Information Systems	3
CIS 106	Computer Logic and Programming Technology [1]	3
CIS 143	Introduction to Database Systems [2]	3
Select one of the following sequences:		8
Sequence 1		
CIS 206	Applied Programming	
CIS 216	Applied Object-Oriented Programming	
Sequence 2		
CSC 121	Computer Science I [3]	
CSC 122	Computer Science II [4]	
WEB 110	Internet Fundamentals	3
or WEB 150	Web Foundations	
Total Hours		**23**

[1] Students should have a strong mathematics background prior to enrollment in software development courses. The prerequisite for CIS 106 is placement into MTH 101 or higher; MTH 103 or higher is recommended.

[2] The prerequisites for CIS 143 are CAS 160 or CIS 101 or WEB 110 with a grade of C or better, and placement into MTH 101 or higher.

[3] Students completing CIS 106 and (MTH 103 with a grade of C or better, or placement into MTH 140 or higher) and consent of CSC department chair will be accepted into CSC 121.

[4] Please contact the CSC department chair for information and prerequisite approval.

Computer Support Technician (Certificate)

Business & Information Technology

Program website (https://www.harpercollege.edu/academics/business/info-systems/computer-support-tech-certificate.php)

Program Overview

This 9 credit-hour certificate program provides students with experience installing, configuring, maintaining and troubleshooting computer hardware and operating systems. These courses will help students prepare for the CompTIA IT Fundamentals and A+ certification exams and qualify for entry-level jobs as computer support technicians.

Program Requirements

Code	Title	Hours
Required		
NET 105	Information Technology Fundamentals	3
NET 111	A+ Hardware	3
NET 112	A+ Operating Systems Technologies	3
Total Hours		**9**

IT Support Technician (Certificate)

Business & Information Technology

Program website (https://www.harpercollege.edu/academics/business/info-systems/it-support-tech-certificate.php)

Program Overview

This 18 credit-hour certificate program provides students with experience installing, configuring, maintaining and troubleshooting computer hardware, operating systems, and basic network infrastructure, and providing high-quality end-user support. These courses will help students prepare for the CompTIA IT Fundamentals, A+, Network+, HDI Desktop Support Technician, and ITIL Foundation certification exams and qualify for entry-level jobs as computer and network support technicians and service desk representatives.

Program Requirements

Code	Title	Hours
Required		
CAS 160	Introduction to Business Software Packages	3
NET 105	Information Technology Fundamentals	3
NET 111	A+ Hardware	3
NET 112	A+ Operating Systems Technologies	3
NET 121	Computer Networking	3
NET 201	Service Desk and Service Management	3
Total Hours		**18**

Network Administration (Certificate)

Business & Information Technology

Program website (https://www.harpercollege.edu/academics/business/info-systems/network-administration-certificate.php)

Program Overview

This 12 credit-hour certificate program provides students with experience in Cisco, Linux, Microsoft, and network security administration. These courses will help students prepare for Cisco CCENT, CompTIA, Linux+ and Security+, and Microsoft MTA certification exams, as well as qualify for entry-level jobs as network support specialists. Students must have CompTIA+ and Network+ certification or similar experience before specializing in network administration. See the IT Support Technician Certificate for entry-level courses.

Program Requirements

Code	Title	Hours
Required		
NET 240	Linux Server Administration	3
NET 260	Windows Server Administration	3
NET 270	Cisco Networking	3
NET 280	Cybersecurity Fundamentals	3
Total Hours		**12**

Network Support Technician (Certificate)

Business & Information Technology

Program website (https://www.harpercollege.edu/academics/business/info-systems/network-support-tech-certificate.php)

Program Overview

This 12 credit-hour certificate program provides students with experience installing, configuring, maintaining and troubleshooting basic network infrastructure. These courses will help students prepare for the CompTIA IT Fundamentals, A+, and Network+ certification exams and qualify for entry-level jobs as network support technicians.

Program Requirements

Code	Title	Hours
Required		
NET 105	Information Technology Fundamentals	3
NET 111	A+ Hardware	3
NET 112	A+ Operating Systems Technologies	3
NET 121	Computer Networking	3
Total Hours		**12**

Cybersecurity (AAS)

Business & Information Technology

Program website (https://www.harpercollege.edu/academics/business/info-systems/cybersecurity-degree.php)

Program Overview

The 60-hour technical curriculum provides a strong theoretical and practical foundation for students entering the growing field of cybersecurity. This program will prepare students for technician-level positions in this emerging field including cybersecurity and information assurance, information security analysts, penetration testers, and digital forensics analysts.

Program Requirements

First Semester		Hours
CIS 106	Computer Logic and Programming Technology	3
ENG 101	Composition I	3
Mathematics [1]		3
NET 101	Orientation to Cybersecurity Careers	1
NET 105	Information Technology Fundamentals	3
NET 121	Computer Networking	3
	Hours	**16**
Second Semester		
CIS 226	Programming for Cybersecurity	3
ENG 102	Composition II	3
NET 240	Linux Server Administration	3
NET 260	Windows Server Administration	3
NET 280	Cybersecurity Fundamentals	3
	Hours	**15**
Third Semester		
NET 262	Windows 365 Administration	3
NET 281	Enterprise And Network Security	3
NET 283	Ethical Hacking and Penetration Testing	3
NET 284	Digital Forensics	3
SPE 101	Fundamentals of Speech Communication	3
	Hours	**15**
Fourth Semester		
CIS 211	IT Project Management	3
NET 282	Cybersecurity Governance, Risk Management, and Compliance	3
NET 290	Cloud Computing	3
NET 298	Cybersecurity Capstone	2
SOC 101	Introduction to Sociology [+]	3
	Hours	**14**
	Total Hours	**60**

[1] Students must take at least 3 credit hours in a mathematics course at the level of MTH 101 or above. MTH 103 is recommended.

[+] This course meets the World Culture and Diversity graduation requirement.

Cybersecurity Forensics Technician (Certificate)

Business & Information Technology

Program website (https://www.harpercollege.edu/academics/business/info-systems/cybersecurity-forensics-technician.php)

Program Overview

This 31 credit-hour certificate program provides students with experience related to cybersecurity administrative tasks, incident response, and investigation data collection. These courses will help students prepare for the CompTIA ITF+, Network+, Linux+, Security+, Project+, Microsoft Administering Windows Server Hybrid Core Infrastructure, ISACA CISM, and EC-Council CHFI certification exams and qualify for mid-level jobs as a cyber defense analyst, infrastructure support specialist, incident responder, and vulnerability assessment analyst.

Program Requirements

Code	Title	Hours
Required		
CIS 106	Computer Logic and Programming Technology [1]	3
CIS 211	IT Project Management	3
CIS 226	Programming for Cybersecurity	3
NET 101	Orientation to Cybersecurity Careers	1
NET 105	Information Technology Fundamentals	3
NET 121	Computer Networking	3
NET 240	Linux Server Administration	3
NET 260	Windows Server Administration	3
NET 280	Cybersecurity Fundamentals	3
NET 282	Cybersecurity Governance, Risk Management, and Compliance	3
NET 284	Digital Forensics	3
Total Hours		**31**

[1] The prerequisite for CIS 106 is placement into MTH 101 or higher. https://www.harpercollege.edu/testing/mathplacement.php

Cybersecurity Support Specialist (Certificate)

Business & Information Technology

Program website (https://www.harpercollege.edu/academics/business/info-systems/cybersecurity-support-specialist.php)

Program Overview

This 16 credit-hour certificate program provides students with experience collecting data for compliance and auditing and the operation of defensive systems. These courses will help students prepare for the CompTIA ITF+, Network+, Security+ and ISACA CISM certification exams and qualify for entry-level jobs as a collections manager, intel and ops planner, and cyber operator.

Program Requirements

Code	Title	Hours
Required		
CIS 106	Computer Logic and Programming Technology [1]	3
NET 101	Orientation to Cybersecurity Careers	1
NET 105	Information Technology Fundamentals	3
NET 121	Computer Networking	3
NET 280	Cybersecurity Fundamentals	3
NET 282	Cybersecurity Governance, Risk Management, and Compliance	3
Total Hours		**16**

[1] The prerequisite for CIS 106 is placement into MTH 101 or higher. https://www.harpercollege.edu/testing/mathplacement.php

Cybersecurity Technical Analyst (Certificate)

Business & Information Technology

Program website (https://www.harpercollege.edu/academics/business/info-systems/cybersecurity-technical-analyst.php)

Program Overview

This 45 credit-hour certificate program provides students with experience implementing cybersecurity systems and processes, lead administrative task and investigation data collection. These courses will help students prepare for the CompTIA ITF+, Network+, Linux+, Security+, Cloud+, PenTest+, Project+, Microsoft Administering Windows Server Hybrid Core Infrastructure, ISACA CISM, EC-Council CHFI, Microsoft 365 Administrator, and ISC2 SSCP certification exams and qualify for advanced-level jobs as a source analyst, mission assessment specialist, exploitation analyst, target developer, target network analyst, and threat/warning analyst.

Program Requirements

Code	Title	Hours
Required		
CIS 106	Computer Logic and Programming Technology [1]	3
CIS 211	IT Project Management	3
CIS 226	Programming for Cybersecurity	3
NET 101	Orientation to Cybersecurity Careers	1
NET 105	Information Technology Fundamentals	3
NET 121	Computer Networking	3
NET 240	Linux Server Administration	3
NET 260	Windows Server Administration	3
NET 262	Windows 365 Administration	3
NET 280	Cybersecurity Fundamentals	3
NET 281	Enterprise And Network Security	3
NET 282	Cybersecurity Governance, Risk Management, and Compliance	3
NET 283	Ethical Hacking and Penetration Testing	3
NET 284	Digital Forensics	3
NET 290	Cloud Computing	3
NET 298	Cybersecurity Capstone	2
Total Hours		**45**

[1] The prerequisite for CIS 106 is placement into MTH 101 or higher. https://www.harpercollege.edu/testing/mathplacement.php

Dental Hygiene (AAS)

Health Science

Program website (https://www.harpercollege.edu/academics/health/dental/dental.php)

Program Overview

This 81-credit hour program prepares the graduate to be a dental hygienist. The dental hygienist is a highly skilled primary care oral health professional with the knowledge and skills to recognize, prevent and treat oral diseases and conditions. As an integral member of the oral health care team, the dental hygienist collaboratively practices evidence-based comprehensive dental hygiene care with the ultimate goal of improving oral health as an essential component of total health. The dental hygienist must have a strong foundation in biomedical science and demonstrate clinical competency including effective communication and interpersonal skills, and professional and ethical behavior. The dental hygienist must also have the ability to evaluate and utilize emerging technologies and apply critical thinking and problem-solving skills to address current and future issues in oral health care.

This degree prepares the graduate for employment as a clinician in a variety of health care settings including solo, group and specialty dental practices, public health clinics, hospitals, and long-term care facilities. With additional education, employment opportunities are available in the corporate sector in sales and as educational specialists, in academia, research, and health care management.

The Associate in Applied Science degree in Dental Hygiene qualifies the graduate to complete the National Board Dental Hygiene Examination, the clinical board examination, and apply for Illinois licensure as a registered dental hygienist.

This program meets the Illinois Board of Dentistry guidelines, is approved by the Illinois Department of Financial and Professional Regulation, and is accredited by the Commission on Dental Accreditation of the American Dental Association.

Because of the nature of clinical experience and individualized instruction required in this program and specialized technology and the equipment necessary to offer this program, a higher tuition rate is assessed for career specific courses. These include courses with the prefix DHY. Students pay 1.5 the regular rate of tuition.

Admission Requirements

Dental Hygiene is a limited enrollment program. For admission requirements, please contact the Admissions Outreach Office at 847.925.6700 or visit harpercollege.edu (https://www.harpercollege.edu/).

Students who apply for this limited enrollment program are obligated to meet the current admission requirements and follow program curriculum as defined at the time of acceptance to the program.

Upon admission to the Dental Hygiene program, the mathematics requirement is met.

Program Requirements

Prerequisites		Hours
BIO 230	Microbiology [1]	4
BIO 260	Human Anatomy [2]	4
BIO 261	Human Physiology [2]	4
CHM 100	Chemistry for the Health Sciences [2]	4
ENG 101	Composition I	3
PSY 101	Introduction to Psychology [+]	3
SOC 101	Introduction to Sociology [+]	3
	Hours	**25**

First Semester

A grade of C or better in all DHY courses is required for all students.

DHY 100	Introduction to Dental Hygiene Fundamentals	1
	Hours	**1**

Second Semester

A grade of C or better in all DHY courses is required for all students.

DHY 101	Dental Hygiene Principles I	2
DHY 105	Dental Hygiene Preclinic Lab	2
DHY 106	Oral Health Assessment	1
DHY 108	Medical Emergencies In Dentistry	0.5
DHY 111	Dental Radiology I	2
DHY 113	Dental Radiology Laboratory	1
DHY 116	Periodontology I	1
DHY 159	Head and Neck Anatomy	3
DHY 161	Oral and Dental Anatomy	2
	Hours	**14.5**

Third Semester

A grade of C or better in all DHY courses is required for all students.

DHY 121	Dental Hygiene Principles II	1
DHY 123	Dental Hygiene Clinic I	2
DHY 125	Oral Health Strategies	1
DHY 190	General and Oral Pathology	2
DHY 200	Periodontology II	1
DHY 202	Dental Radiology II	1
DHY 269	Dental Materials for the Dental Hygienist	1
DHY 270	Dental Materials Laboratory Techniques for the Dental Hygienist	1
SPE 215	Intercultural Communication	3
	Hours	**13**

Fourth Semester

A grade of C or better in all DHY courses is required for all students.

DHY 119	Oral Health Management of Special Needs Populations	1
DHY 151	Dental Hygiene Principles III	1
DHY 153	Dental Hygiene Clinic II	2
DHY 203	Dental Radiology III	0.5

DHY 240	Dental Pharmacology for the Dental Hygienist	2
	Hours	**6.5**

Fifth Semester

A grade of C or better in all DHY courses is required for all students.

DHY 205	Dental Radiology IV	0.5
DHY 230	Dental Pain and Anxiety Management	1
DHY 232	Dental Pain and Anxiety Management Lab	1
DHY 235	Dental Scientific Literature	1
DHY 250	Dental Hygiene Principles IV	1
DHY 251	Dental Hygiene Clinic III	3
DHY 253	Periodontology III	2
DHY 255	Dental Hygiene Advanced Periodontology Clinic	1
	Hours	**10.5**

Sixth Semester

A grade of C or better in all DHY courses is required for all students.

DHY 130	Nutrition for Oral Health	1
DHY 201	Ethics, Jurisprudence and Transition to Professional Practice	2
DHY 207	Dental Radiology V	0.5
DHY 220	Community Oral Health	3
DHY 260	Dental Hygiene Principles V	1
DHY 262	Dental Hygiene Clinic IV	3
	Hours	**10.5**
	Total Hours	**81**

[1] This course must be taken prior to beginning DHY courses.

[2] This course must be completed with a grade of C or better no earlier than five years prior to beginning the Dental Hygiene program.

+ This course meets the World Culture and Diversity graduation requirement.

Diagnostic Cardiac Sonography (AAS)

Health Science

Program website (https://www.harpercollege.edu/academics/health/diagnostic-cardiac-sonography/dcs-degree.php)

Program Overview

This 67.5 credit-hour program prepares the graduate to be a diagnostic cardiac sonographer. A diagnostic cardiac sonographer is a highly skilled professional who uses specialized ultrasound equipment to record visual images of the heart. They work in hospitals and outpatient settings producing these echocardiograms to assist the physician in diagnosing heart disease. This degree prepares the graduate to secure their American Registry of Diagnostic Medical Sonography credential and entry-level work in the adult echo specialty area. The graduate also receives instruction in basic vascular sonography as well as EKG-related diagnostic testing. A clinical hospital experience in echocardiography is provided.

Because of the nature of clinical experiences and individualized instruction required in this program and specialized technology and the equipment necessary to offer this program, a higher tuition rate is assessed for career-specific courses including courses with the DCS prefix. Students will pay 1.5 the regular rate of tuition.

Admission Requirements

Diagnostic Cardiac Sonography is a limited enrollment program. For admission requirements, please contact the Admissions Outreach Office at 847.925.6700 or visit harpercollege.edu (https://www.harpercollege.edu/). Students who apply for this limited enrollment program are obligated to meet current admission requirements and follow program curriculum as defined at the time of acceptance to the program.

Program Requirements

A grade of C or better in all coursework is required for all students.

Prerequisites		Hours
BIO 260	Human Anatomy [1]	4
BIO 261	Human Physiology [1]	4
ENG 101	Composition I	3
Mathematics [2]		3
PHY 100	Basic Concepts in Physics [3]	3
	Hours	**17**
First Semester		
DCS 101	Electrocardiography I	2
DCS 105	Ultrasound Physics and Instrumentation I	2
DCS 107	Sonography Theory I	2
DCS 109	Sonography Lab I [4]	1
HSC 112	Medical Terminology	2
HSC 165	Basic Pharmacology	1
	Hours	**10**
Second Semester		
DCS 102	Electrocardiography II	2
DCS 106	Ultrasound Physics and Instrumentation II	2
DCS 108	Sonography Theory II	2
DCS 110	Sonography Lab II [4]	1
HSC 104	Health Care Technology and Informatics	2
HSC 213	Legal and Ethical Issues in Health Care	2
	Hours	**11**
Diagnostic Cardiac Sonography Summer Session I		
Optional		
DCS 112	Sonography Lab III [5]	0-1
	Hours	**0-1**
Third Semester		
DCS 207	Cardiac Sonography Theory I	6
DCS 209	Cardiac Sonography Lab I [4]	2
Humanities or Social and Behavioral Science [+]		3
	Hours	**11**
Fourth Semester		
DCS 208	Cardiac Sonography Theory II	6
DCS 210	Cardiac Sonography Lab II [4]	2
DCS 220	Introduction to the Cardiac Sonography Clinical	2.5
SPE 101	Fundamentals of Speech Communication	3
	Hours	**13.5**
Diagnostic Cardiac Sonography Summer Session II		
DCS 230	Cardiac Sonography Clinical [6]	5
DCS 260	Advanced Sonography Seminar [5]	0-1
	Hours	**5-6**
	Total Hours	**67.5-69.5**

[1] Must be completed no earlier than five years prior to beginning the DCS program; time requirement may be waived for direct patient care providers with a minimum of a two-year allied health care degree.

[2] MTH 165 is recommended. MTH 101, MTH 103, or higher with a grade of C or better may be substituted.

[3] PHY 110 or PHY 121 or higher with a grade of C or better may be substituted.

[4] Every credit hour of sonography lab requires a minimum of 2 hours per week sonography lab practice.

[5] This course is optional and not required for graduation.

[+] Students need to choose a course to meet this requirement that also fulfills the World Cultures and Diversity graduation requirement. See full list of AAS General Education Electives (p. 60).

[6] Assignments will be based on site availability.

Diagnostic Medical Sonography (AAS)

Health Science

Program website (https://www.harpercollege.edu/academics/health/diagnostic-medical-sonography/dms-degree.php)

Program Overview

This 70.5 credit-hour program prepares the graduate to be a diagnostic medical sonographer. A diagnostic medical sonographer is a highly skilled professional who uses specialized ultrasound equipment to record visual images of internal structures of the abdomen, pelvis and neck. They work in hospitals and outpatient settings producing these ultrasounds to assist the physician in diagnosing disease. This degree program prepares the graduate to secure their American Registry of Diagnostic Medical Sonography credentials and entry-level work in the abdomen and obstetrics/gynecology specialty areas. The graduate also receives instruction in vascular sonography. A clinical hospital experience in abdominal, small parts, vascular, obstetrical and gynecological ultrasound is provided.

Because of the nature of clinical experiences and individualized instruction required in this program and specialized technology and the equipment necessary to offer this program, a higher tuition rate is assessed for career-specific courses, including courses with the DMS prefix. Students pay 1.5 the regular rate of tuition.

Admission Requirements

Diagnostic Medical Sonography is a limited enrollment program. For admission requirements, please contact the Admissions Outreach Office at 847.925.6700 or visit harpercollege.edu (https://www.harpercollege.edu/).

Students who apply for this limited enrollment program are obligated to meet current admission requirements and follow program curriculum as defined at the time of acceptance to the program.

Program Requirements

A grade of C or better in all coursework is required for all students.

Prerequisites		Hours
BIO 260	Human Anatomy [1]	4
BIO 261	Human Physiology [1]	4
ENG 101	Composition I	3
Mathematics [2]		3
PHY 100	Basic Concepts in Physics [3]	3
	Hours	**17**
First Semester		
DMS 105	Ultrasound Physics and Instrumentation I	2
DMS 107	Sonography Theory I	2
DMS 109	Sonography Lab I [4]	1
HSC 112	Medical Terminology	2
HSC 165	Basic Pharmacology	1
Humanities or Social and Behavioral Science [+]		3
	Hours	**11**

Second Semester		
DMS 106	Ultrasound Physics and Instrumentation II	2
DMS 108	Sonography Theory II	2
DMS 110	Sonography Lab II [4]	1
HSC 104	Health Care Technology and Informatics	2
HSC 213	Legal and Ethical Issues in Health Care	2
SPE 101	Fundamentals of Speech Communication	3
	Hours	**12**
Diagnostic Medical Sonography Summer Session I Optional		
DMS 112	Sonography Lab III [5]	0-1
	Hours	**0-1**
Third Semester		
DMS 201	Introduction to the Medical Sonography Clinical	2.5
DMS 204	Abdominal and Small Parts Sonography Theory I	4
DMS 205	Obstetrical and Gynecological Sonography Theory I	3
DMS 206	Medical Sonography Lab I	2
	Hours	**11.5**
Fourth Semester		
DMS 207	Medical Sonography Clinical I [6]	5
DMS 208	Abdominal and Small Parts Sonography Theory II	4
DMS 209	Medical Sonography Lab II [4]	2
DMS 210	Obstetrical and Gynecological Sonography Theory II	3
	Hours	**14**
Diagnostic Medical Sonography Summer Session II		
DMS 211	Medical Sonography Clinical II [6]	5
DMS 260	Advanced Sonography Seminar [5]	0-1
	Hours	**5-6**
	Total Hours	**70.5-72.5**

[1] Must be completed no earlier than five years prior to beginning the DCS program; time requirement may be waived for direct patient care providers with a minimum of a two-year allied health care degree.

[2] MTH 165 is recommended. MTH 101, MTH 103 or higher with a grade of C or better may be substituted.

[3] PHY 110 or PHY 121 or higher with a grade of C or better may be substituted.

[4] Every credit hour of sonography lab requires a minimum of 2 hours per week sonography lab practice.

[+] Students need to choose a course to meet this requirement that also fulfills the World Cultures and Diversity graduation requirement. See full list of AAS General Education Electives (p. 60).

[5] This course is optional and not required for graduation.

[6] Assignments will be based on site availability.

Drone Essentials (Certificate)

Social Science

Program website (https://www.harpercollege.edu/academics/social-science/geography/drone-essentials-certificate.php)

Program Overview

This 7 credit-hour Drone Essentials Certificate Program provides learners with the essential competencies and understanding required for the efficient and safe utilization of drones (Small Uncrewed Aerial Systems, sUAS) across numerous business and public sector domains as drone pilots or operators. Drone technology is used across a spectrum of industries, such as agriculture, cinematography, ecological monitoring, environmental management, insurance, mapping and surveying, military operations, mining, photography, public safety, real estate, search and rescue, and structural inspections.

Program Requirements

Code	Title	Hours
DRO 100	Drone Pilot Ground School	1
DRO 101	Mastering Drone Flight: Essential Skills and Techniques	3
DRO 102	Drone Data Acquisition and Analysis	3
Total Hours		**7**

Drone Technology and Applications (Certificate)

Social Science

Program website (https://www.harpercollege.edu/academics/social-science/geography/drone-technology-certificate.php)

Program Overview

This 16 credit-hour certificate program provides students with the skills and knowledge necessary to effectively use drones (Small Uncrewed Aerial Systems, sUAS) in variety of business and public sector domains working as pilots, drone image specialists, or remote sensing technicians. Drone technology is used in diverse fields including agriculture, ecological monitoring, cinematography, environmental management, insurance, mapping and surveying, military operations, mining, photography, public safety, real estate, search and rescue, and structural inspections.

Program Requirements

Code	Title	Hours
Required		
ART 250	Introduction to Photographic Art	3
ART 251	Intermediate Photographic Art	3
or GIS 100	Introduction to Geospatial Technologies	
DRO 100	Drone Pilot Ground School	1
DRO 101	Mastering Drone Flight: Essential Skills and Techniques	3
DRO 102	Drone Data Acquisition and Analysis	3
Electives		
Select three credit hours from the following courses:		3
GIS 200	Introduction to Remote Sensing	

Code	Title	Hours
MCM 210	Video Editing and Video Post-Production	
MCM 212	Multi-Camera Production	
Total Hours		**16**

Early Childhood Education - Director (AAS)

Education

Program website (https://www.harpercollege.edu/academics/education/early-childhood-education/early-childhood-degree.php)

Option 1: Early Childhood Education Degree – Director

Program Overview

The 60 credit-hour curriculum is designed to provide students with the requisite skills and theoretical knowledge to work in a variety of facilities for young children as a director for half-day and full-day early childhood centers.

Upon completion of courses for the specialized area of director, demonstration of proof of First Aid/CPR certification and verification of 1200 hours of management experience, students need to complete an IL Gateways application to qualify for the Illinois Director Credential Level 1.

This sequenced degree plan is one of two options that students may pursue to earn the Early Childhood Education Associate in Applied Science (AAS) degree. **While there are multiple specializations, this particular degree can be awarded only once.**

Program Requirements

First Semester		Hours
ECE 101	Introduction to Early Childhood Education	3
ECE 102	Child Development	3
ECE 115	Principles of Early Childhood Curriculum	3
ENG 101	Composition I	3
Mathematics [1]		3
	Hours	**15**
Second Semester		
ECE 226	Assessment and Guidance	3
ECE 250	Health, Nutrition and Safety	3
ECE 252	Child-Family-Community	3
MGT 205	Leadership	3
SPE 101	Fundamentals of Speech Communication	3
	Hours	**15**
Third Semester		
ECE 253	Administration of Early Childhood Programs	3
EDU 219	Students with Disabilities in School	3
EDU 220	Diversity in Schools and Society [+]	3
EDU 250	Introduction to Technology in Education	3
PSY 101	Introduction to Psychology [+]	3
	Hours	**15**
Fourth Semester		
AAS General Education elective(s) (p. 60) [2]		3
ECE 254	Interpersonal Relationships in Early Childhood Education	1
ECE 293	Early Childhood Director Practicum	3
ECE elective: Any ECE course.		3

FSM 114	Food Standards and Sanitation	2
MKT 245	Principles of Marketing	3
	Hours	**15**
	Total Hours	**60**

[1] The mathematics requirement for this degree can be met with MGT 150 (Business Math) or Math Competency. See Math Competency options (https://www.harpercollege.edu/testing/docs/math-competency-options.php) for information. Students who use Math Competency to meet the mathematics requirement must complete an additional three credit-hour AAS General Education elective. See full list of AAS General Education Electives (p. 60).

[+] This course meets the World Culture and Diversity graduation requirement.

[2] See full list of AAS General Education Electives (p. 60).

Early Childhood Education - Teacher (AAS)

Education

Program website (https://www.harpercollege.edu/academics/education/early-childhood-education/early-childhood-degree.php)

Option 2: Early Childhood Education Degree – Teacher

Program Overview

The 60 credit-hour curriculum is designed to provide students with the requisite skills and theoretical knowledge to work in a variety of facilities for young children. Upon completion of courses for the specialized area of teacher, students need to complete an IL Gateways application to qualify for the Illinois ECE Credential Level 4 and Illinois Infant/Toddler Credential Level 4.

This sequenced degree plan is one of two options that students may pursue to earn the Early Childhood Education Associate in Applied Science (AAS) degree. **While there are multiple specializations, this particular degree can be awarded only once.**

Program Requirements

First Semester		Hours
ECE 101	Introduction to Early Childhood Education	3
ECE 102	Child Development	3
ECE 115	Principles of Early Childhood Curriculum	3
ENG 101	Composition I	3
Mathematics [1]		3
	Hours	**15**
Second Semester		
ECE 111	Infant/Toddler Programs	3
ECE 226	Assessment and Guidance	3
ECE 250	Health, Nutrition and Safety	3
EDU 219	Students with Disabilities in School	3
PSY 101	Introduction to Psychology [+]	3
	Hours	**15**

Third Semester

ECE 209	Language Development and Activities for the Young Child	3
ECE 210	Creative Activities for Young Children	3
ECE 291	Early Childhood Practicum I	3
EDU 220	Diversity in Schools and Society [+]	3
SPE 101	Fundamentals of Speech Communication	3
	Hours	**15**

Fourth Semester

AAS General Education elective(s) (p. 60) [2]		3
ECE 221	Math and Science for the Young Child	3
ECE 252	Child-Family-Community	3
ECE 292	Early Childhood Practicum II	3
ECE elective: Any ECE course.		3
	Hours	**15**
	Total Hours	**60**

[1] The mathematics requirement for this degree can be met with MGT 150 (Business Math) or Math Competency. See Math Competency options (https://www.harpercollege.edu/testing/docs/math-competency-options.php) for information. Students who utilize Math Competency to meet the mathematics requirement must complete an additional three credit-hour elective. See full list of AAS General Education electives (p. 60).

[+] This course meets the World Culture and Diversity graduation requirement.

[2] See full list of AAS General Education Electives (p. 60).

Assistant Teacher (Certificate)

Education

Program website (https://www.harpercollege.edu/academics/education/early-childhood-education/asst-teacher-certificate.php)

Program Overview

This 18 credit-hour curriculum will qualify students for the Illinois ECE Credential-Level 2. Students will need to complete an IL Gateways application. This certificate program will provide an assistant teacher in a licensed child care facility with basic knowledge in early childhood care and education.

Program Requirements

Code	Title	Hours
Required		
ECE 101	Introduction to Early Childhood Education	3
ECE 102	Child Development	3
ECE 115	Principles of Early Childhood Curriculum	3
ECE 226	Assessment and Guidance	3
ECE 250	Health, Nutrition and Safety	3
ECE 252	Child-Family-Community	3
Total Hours		**18**

Infant/Toddler Teacher (Certificate)

Education

Program website (https://www.harpercollege.edu/academics/education/early-childhood-education/infant-toddler-teacher.php)

Program Overview

This 30 credit-hour certificate program will qualify students for the Illinois Infant Toddler Credential-Level 3. Student will need to complete an IL Gateways application. This certificate will provide a teacher in a licensed child care facility with the knowledge in infant/toddler care and education.

Program Requirements

Code	Title	Hours
Required Early Childhood Education Courses		
ECE 101	Introduction to Early Childhood Education	3
ECE 102	Child Development	3
ECE 111	Infant/Toddler Programs	3
ECE 115	Principles of Early Childhood Curriculum	3
ECE 226	Assessment and Guidance	3
ECE 250	Health, Nutrition and Safety	3
ECE 252	Child-Family-Community	3
Required General Education Courses		
ENG 101	Composition I	3
Mathematics [1]		3
PSY 101	Introduction to Psychology	3
Total Hours		**30**

[1] Students must take at least three credit hours of mathematics MTH 101, MTH 103 or higher.

Infant/Toddler Teacher Assistant (Certificate)

Education

Program website (https://www.harpercollege.edu/academics/education/early-childhood-education/infant-toddler-certificate.php)

Program Overview

This 15 credit-hour certificate program will qualify students for the Illinois Infant Toddler Credential - Level 2. Students will need to complete an IL Gateways application. This certificate will provide an assistant teacher in a licensed child care facility with basic knowledge in infant/toddler care and education.

Program Requirements

Code	Title	Hours
Required		
ECE 101	Introduction to Early Childhood Education	3
ECE 102	Child Development	3
ECE 111	Infant/Toddler Programs	3
ECE 115	Principles of Early Childhood Curriculum	3
ECE 250	Health, Nutrition and Safety	3
Total Hours		**15**

Teacher (Certificate)

Education

Program website (https://www.harpercollege.edu/academics/education/early-childhood-education/teacher-certificate.php)

Program Overview

This 30 credit-hour curriculum will qualify students for the Illinois ECE Credential Level 3. Students will need to complete an IL Gateways application. This certificate program meets the minimal educational requirements established by the Illinois Department of Children and Family Services for an early childhood teacher who has also obtained one year of experience in a licensed center.

Program Requirements

Code	Title	Hours
Required Early Childhood Education Courses		
ECE 101	Introduction to Early Childhood Education	3
ECE 102	Child Development	3
ECE 115	Principles of Early Childhood Curriculum	3
ECE 226	Assessment and Guidance	3
ECE 250	Health, Nutrition and Safety	3
ECE 252	Child-Family-Community	3
EDU 219	Students with Disabilities in School	3
Required General Education Courses		
ENG 101	Composition I	3
Mathematics [1]		3
PSY 101	Introduction to Psychology	3
Total Hours		**30**

[1] Students must take at least three credit hours of mathematics MTH 101, MTH 103 or higher.

Electronics Engineering Technology (AAS)

Manufacturing and Construction

Program website (https://www.harpercollege.edu/academics/manufacturing/electronics-engineering/electronics-engineering-technology-degree.php)

Program Overview

This 60 credit-hour program is designed to prepare students for careers in the field of electronics and other related technology industries. The curriculum satisfies general education requirements, and offers courses in mathematics, computer science and physics to cultivate student critical thinking skills. A broad range of electronics courses provides considerable emphasis on analysis and application, or applied technology. Specific electronics engineering technology topics for this program include: electrical laws and principles, network analysis, semiconductor devices, digital and analog circuits, communications systems, industrial control systems utilizing sensors, fluid power and programmable logic controllers, and embedded microcontroller/processor systems. Additional courses in the industrial electronics area are also available.

Graduates of this program may find employment as technical sales specialists, applications engineers, engineering laboratory technicians, technical writers, manufacturing and quality control technicians, and customer service engineers.

Graduates may also continue their education by pursuing a Bachelor of Science in Electronics Engineering Technology (BSEET) degree at a four-year college or university offering this type of program. Students considering this transfer option are encouraged to meet with the Program Coordinator and an academic advisor prior to beginning the program, and also when planning their schedule each semester.

Program Requirements

First Semester		Hours
ELT 101	DC Network Analysis	4
ELT 110	Introductory Electronics	4
ENG 101	Composition I	3
MTH 103	College Algebra [1]	3
	Hours	**14**
Second Semester		
CIS 106 or NET 105	Computer Logic and Programming Technology or Information Technology Fundamentals	3
ELT 102	AC Network Analysis	4
ELT 111	Semiconductor Devices and Circuits	2
ELT 135	Optics and Sensors	2
MTH 140	Precalculus	5
	Hours	**16**
Third Semester		
ELT 140	Introduction to Programmable Logic Controllers	2
ELT 203	Digital Electronics	4

Humanities or Social and Behavioral Science [+]		3
PHY 121	Introductory Physics I	5
	Hours	**14**
Fourth Semester		
ELT 207	Communications Systems	4
ELT 215	Industrial Control Systems	4
ELT 218	Embedded Microcontroller/Microprocessor Systems	4
ELT 240 or ELT 281	Advanced Programmable Logic Controllers or Topics in Electronics Engineering Technology	4
	Hours	**16**
	Total Hours	**60**

[+] Students need to choose a course to meet this requirement that also meets the World Cultures and Diversity graduation requirement. See full list of AAS General Education Electives (p. 60).

[1] Students who place into MTH 140 or higher may take a three credit-hour AAS General Education elective in place of MTH 103. See full list of AAS General Education Electives.

Electrical Maintenance (Certificate)

Manufacturing and Construction

Program website (https://www.harpercollege.edu/academics/manufacturing/electronics-engineering/electrical-maintenance-certificate.php)

Program Overview

This 8 credit-hour certificate program is designed to prepare students for careers in the field of electrical installation and service, and other related facilities or industrial electronics maintenance areas. The curriculum is tailored to provide entry-level career training in the least amount of time. Emphasis is placed on equipment operation, application, installation and servicing. Courses specific to instruction include: basic electricity and electronics, residential or commercial electrical wiring and codes, and basic automation systems. Topics within these courses involve: practical electrical concepts and measurements, electrical wiring, and an introduction to programmable logic controllers.

Students completing this program may find employment as electrical technicians, electrician apprentices, electricians, and facilities or plant maintenance technicians.

Students may also continue their education by pursuing an Associate in Applied Science degree. Students considering this option are encouraged to meet with the Program Coordinator and an academic advisor prior to beginning the program, and also when planning their schedule each semester.

Program Requirements

Code	Title	Hours
Required		
ELT 110	Introductory Electronics	4
ELT 140	Introduction to Programmable Logic Controllers	2
ELT 142	Residential Wiring	2

or ELT 143	Commercial Wiring	
Total Hours		**8**

Electronics (Certificate)

Manufacturing and Construction

Program website (https://www.harpercollege.edu/academics/manufacturing/electronics-engineering/electronics-certificate.php)

Program Overview

This 16 credit-hour certificate program is designed to prepare students for careers in the field of electronics and other related technology industries. The curriculum is very flexible as it allows students to choose from a number of electronics courses in many diverse technology areas and is tailored to provide entry-level career training in a relatively short time. A broad range of electronics courses provides considerable emphasis on analysis, operation, application, installation and servicing. Because most courses have prerequisites, students should consult with the Program Coordinator prior to enrolling.

Students completing this program may find employment in various entry-level positions in technical sales, manufacturing and quality control, and customer service.

Students may also continue their education by pursuing an Associate in Applied Science degree. Students considering this option are encouraged to meet with the Program Coordinator and an academic advisor prior to beginning the program and also when planning their schedule each semester.

Program Requirements

Code	Title	Hours
Electives		
Choose any combination of 16 credit hours with Program Coordinator approval:		16
ELT 101	DC Network Analysis	
ELT 102	AC Network Analysis	
ELT 110	Introductory Electronics	
ELT 111	Semiconductor Devices and Circuits	
ELT 203	Digital Electronics	
ELT 207	Communications Systems	
ELT 215	Industrial Control Systems	
ELT 218	Embedded Microcontroller/Microprocessor Systems	
ELT 281	Topics in Electronics Engineering Technology	
Total Hours		**16**

Industrial Electronics Maintenance (Certificate)

Manufacturing and Construction

Program website (https://www.harpercollege.edu/academics/manufacturing/electronics-engineering/industrial-electronics-maintenance-certificate.php)

Program Overview

This 16 credit-hour certificate program is designed to prepare students for careers in the field of industrial electronics and facilities maintenance, and other related technology maintenance areas. The curriculum is tailored to provide intermediate-level career training in the least amount of time. Emphasis is placed on equipment operation, application, installation and servicing. Courses specific to instruction include: basic electricity and electronics, commercial wiring and codes, and industrial control systems. Topics within these courses involve: practical electrical concepts and measurements, basic industrial maintenance, fluid power, optics and sensors, and programmable logic controllers.

Students completing this program may find employment as electrical technicians, electrician apprentices, electricians, and facilities or plant maintenance technicians.

Students may also continue their education by pursuing an Associate in Applied Science degree. Students considering this option are encouraged to meet with the Program Coordinator and an academic advisor prior to beginning the program, and also when planning their schedule each semester.

Program Requirements

Code	Title	Hours
Required		
ELT 110	Introductory Electronics	4
ELT 120	Introductory Industrial Electronics Maintenance	2
ELT 135	Optics and Sensors	2
ELT 140	Introduction to Programmable Logic Controllers	2
ELT 143	Commercial Wiring	2
ELT 215	Industrial Control Systems	4
Total Hours		**16**

Mechatronics (Certificate)

Manufacturing and Construction

Program website (https://www.harpercollege.edu/academics/manufacturing/electronics-engineering/mechatronics-certificate.php)

Program Overview

This 24 credit-hour certificate program is designed to prepare students for careers in the field of industrial electronics and facilities maintenance, and other related technology maintenance areas. The curriculum is tailored to provide advanced-level career training in the least amount of time. Emphasis is placed on equipment operation, application, installation and servicing. Courses specific to instruction include: basic electricity and electronics, commercial wiring and codes, and industrial control systems as they pertain to robotics or automated systems. Topics within these courses involve practical electrical concepts and measurements, basic industrial maintenance, fluid power, AC and DC motors, variable frequency drives, optics and sensors, and programmable logic controllers.

Students completing this program may find employment as electrical technicians, electricians, and facilities or plant maintenance technicians and supervisors.

Students may also continue their education by pursuing an Associate in Applied Science degree. Students considering this option are encouraged

to meet with the Program Coordinator and an academic advisor prior to beginning the program, and also when planning their schedule each semester.

Program Requirements

Code	Title	Hours
Required		
ELT 110	Introductory Electronics	4
ELT 120	Introductory Industrial Electronics Maintenance	2
ELT 135	Optics and Sensors	2
ELT 140	Introduction to Programmable Logic Controllers	2
ELT 143	Commercial Wiring	2
ELT 144	AC and DC Motors	2
ELT 145	Variable Frequency Drives	2
ELT 215	Industrial Control Systems	4
ELT 240	Advanced Programmable Logic Controllers	4
Total Hours		**24**

Emergency and Disaster Management (AAS)

Public Service

Program website (https://www.harpercollege.edu/academics/public-service/emergency-management/emergency-disaster-management-degree.php)

Program Overview

This 61 credit-hour program in Emergency and Disaster Management provides foundational knowledge and initial exposure to the Emergency Management field. Students explore a variety of areas within the discipline, including the four phases of emergency management, terrorism in emergency management, as well as inter-agency disaster management. This degree program is designed for students seeking entry-level exposure to the emergency management field, as well as for professionals in industries such as fire science, homeland security, and emergency response administration who are seeking to bolster their emergency management background. This degree program is recognized by FEMA's Emergency Management Institute for higher education.

Program Requirements

A grade of C or better in all EMG courses is required for all students.

First Semester		Hours
EMG 101	Introduction to Emergency Management	3
EMG 107	Incident Management Systems	3
EMG 253	Ideologies of Terrorism	3
ENG 101	Composition I	3
MGT 150	Business Math [1]	3
	Hours	15
Second Semester		
EMG 103	Leadership, Influence, Decision Making and Problem Solving	3
EMG 155	Social Dimensions of Disaster	3
GIS 100	Introduction to Geospatial Technologies	3
PSY 101	Introduction to Psychology [+]	3
SPE 101	Fundamentals of Speech Communication	3
	Hours	15
Third Semester		
BIO 260 or NTR 101	Human Anatomy or Fundamentals of Nutrition	3
DRO 101	Mastering Drone Flight: Essential Skills and Techniques	3
Elective(s) (p. 92)		3
EMG 150	Public Information, Education, and Community Relations	3
HED 206	Introduction to Community and Public Health	3
	Hours	15
Fourth Semester		
Elective(s) (p. 92)		12
EMG 153	Hazard Analysis and Mitigation	3

EMG 299	Emergency Management Systems Practicum	1
	Hours	16
	Total Hours	**61**

[1] The mathematics requirement for this degree can be met with MGT150 (Business Math) or Math Competency. See Math Competency options (https://www.harpercollege.edu/testing/docs/math-competency-options.php)for information. Students who use Math Competency to meet the mathematics requirement must complete an additional three credit-hour AAS General Education elective. See full list of AAS General Education Electives. (p. 60)

[+] Students need to choose a course to meet this requirement that also meets the World Cultures and Diversity graduation requirement. See full list of AAS General Education Electives (p. 60).

Electives

Code	Title	Hours
Select at least 15 credit hours from the following courses:		15
EMG 131	Public Safety Dispatcher I	
EMG 201	International Disaster Management	
EMG 151	Emergency Management Policy and Planning	
EMG 205	Crisis Exercise Design and Evaluation	
EMG 231	Public Safety Dispatcher II	
EMG 251	Select Problems in Emergency Management	
FIS 260	Emergency Services Safety	
FIS 132	Hazardous Materials	

Emergency and Disaster Management (Certificate)

Public Service

Program website (https://www.harpercollege.edu/academics/public-service/emergency-management/emergency-disaster-management-certificate.php)

Program Overview

This 30 credit-hour certificate program is intended to meet the needs of men and women in emergency management roles at the local, state and federal levels to enter the emergency management career field. Opportunities for graduates include Emergency Manager Specialist, Emergency Services Manager, Emergency Management Planner, Emergency Operations Director, Environmental Compliance Planner, and Emergency Disaster Coordinator.

Program Requirements

A grade of C or better in all EMG courses is required for all students.

Code	Title	Hours
Required		
EMG 101	Introduction to Emergency Management	3
EMG 107	Incident Management Systems	3
EMG 150	Public Information, Education, and Community Relations	3

EMG 155	Social Dimensions of Disaster	3
EMG 253	Ideologies of Terrorism	3
FIS 260	Emergency Services Safety	3
Electives		
Select at least 12 credit hours from the following courses:		12
EMG 103	Leadership, Influence, Decision Making and Problem Solving	
EMG 131	Public Safety Dispatcher I	
EMG 151	Emergency Management Policy and Planning	
EMG 153	Hazard Analysis and Mitigation	
EMG 201	International Disaster Management	
EMG 205	Crisis Exercise Design and Evaluation	
EMG 231	Public Safety Dispatcher II	
EMG 251	Select Problems in Emergency Management	
EMG 299	Emergency Management Systems Practicum	
FIS 132	Hazardous Materials	
Total Hours		**30**

Public Safety Dispatcher (Certificate)

Public Service

Program website (https://www.harpercollege.edu/academics/public-service/emergency-management/public-safety-dispatcher-certificate.php)

Program Overview

This 6 credit-hour certificate program is intended to meet the needs of men and women in public safety dispatching roles at the local, state and federal levels and to prepare others to enter the public safety dispatcher career field. This certificate program meets the requirements of the Illinois Law Enforcement Training and Standards Board (ILETSB) Public Safety Dispatcher minimum standards, Association of Public Safety Communications Officers (APCO) Project 25 Public Safety Dispatcher minimum standards, and the National Fire Protection Association of NFPA 1061 Public Safety Dispatcher job requirements.

Program Requirements

A grade of C or better in all EMG courses is required for all students.

Code	Title	Hours
Required		
EMG 131	Public Safety Dispatcher I	3
EMG 231	Public Safety Dispatcher II	3
Total Hours		**6**

Emergency Medical Services (AAS)

Public Service

Program website (https://www.harpercollege.edu/academics/public-service/emergency-medical-services/ems-degree.php)

Program Overview

This 71 credit-hour program is a joint educational venture with Northwest Community Healthcare and Harper College. The National EMS Agenda for the Future (Agenda), a consensus document published by the National Highway Traffic Safety Administration (NHTSA) and the Health Resources and Services Administration (HRSA) in 1996, declared that EMS education must be of high quality and represent the intersection of the EMS profession and the formal educational system and must be affiliated with an institution of higher learning and available for college credit. As an Illinois EMS Resource Hospital, Northwest Community Healthcare (NCH) is required by the Illinois EMS Act and Rules to conduct EMT and paramedic education programs within the context of Federal and State guidelines and standards.

The Agenda also asserted that EMS educational quality and entry level competence should be assured by curricula standards, national accreditation, and national standard testing. Thus, the program has been designed to comply with the requirements set forth by the National EMS Education Standards (NHTSA, 2009), the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoA), and the Illinois EMS Act and Administrative Rules with the goal of preparing competent entry-level Paramedics in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains, with or without exit points at the Emergency Medical Technician level.

Illinois EMS Rules define a paramedic as "a person who has successfully completed a course in advanced life support care as approved by the Department, is currently licensed by the Department in accordance with standards prescribed by the EMS Act and Rules and practices within an Advanced Life Support EMS System" (Section 3.50 of the Act). A paramedic is awarded practice privileges and functions under the direction of a Resource Hospital EMS Medical Director (EMS MD) in an IDPH-approved EMS System. They must operate within their approved scope of practice and are accountable to the EMS MD, their employer, the health care team, and the public.

Paramedics are expected to assess and recognize medical, trauma, emotional and psychological alterations from health, as well as render basic and advanced life support care in a wide variety of conditions and locations, and to people of all ages. They must be academically, physically and emotionally competent, needing strong knowledge and understanding of anatomy and physiology, pathophysiology, clinical assessment techniques, medications, complex procedures, providing emotional support, ethical behavior, and the ability to make informed judgments in an environment of complexity and uncertainty.

Our program supports and fosters critical thinking, research and service, and provides opportunities for cooperation and strategic linkages between all essential components for the delivery of quality EMS care. It facilitates adaptation of the work force as community health care needs and the role of EMS evolves. Interdisciplinary programs provide avenues for EMS providers to enhance their credentials or transition to other health career roles, and for other health care professionals to acquire EMS provider credentials.

Working conditions vary. Paramedics work indoors and outdoors. Most EMS agencies provide service 24/7, 365 days/year. Paramedics work all shifts including weekends and holidays. Potential employment opportunities must be analyzed on a local, rather than a regional, state, or national level. Market forces impacted by finite revenue streams, pension challenges, and shrinking reimbursements from Medicare and Medicaid and the state's insolvent economic situation have limited hiring. Competition for jobs is high, especially at the paramedic level within the Fire Services. Limited job openings occur due to replacement needs. The largest need for new EMTs and paramedics is in the private ambulance sector. They traditionally experience a high turnover rate as EMTs or paramedics leave to join municipal services. This private to public provider transition continues to be a common career path for individuals seeking to become firefighter/paramedics.

Admission Requirements

Emergency Medical Services is a limited enrollment program. For admission requirements please contact the Admissions Outreach Office at 847.925.6700 or visit harpercollege.edu (https://www.harpercollege.edu/).

Students who apply for this limited enrollment program are obligated to meet current admission requirements and follow program curriculum as defined at the time of acceptance to the program.

Upon admission to the Emergency Medical Services program, the mathematics requirement is met.

Program Requirements

First Semester		Hours
A grade of C or better in BIO and EMS is required for all students.		
BIO 260	Human Anatomy	4
EMS 111	Emergency Medical Technician Preparatory	3
EMS 112	Emergency Medical Technician: Medical Emergencies	3
EMS 113	Emergency Medical Technician: Trauma Emergencies	3
	Hours	**13**
Second Semester		
A grade of C or better in BIO is required for all students.		
BIO 261	Human Physiology	4
ENG 101	Composition I	3
SOC 101	Introduction to Sociology [+]	3
SPE 101	Fundamentals of Speech Communication	3
	Hours	**13**
Third Semester		
A grade of C or better in all EMS is required for all students.		
EMS 210	Paramedic Preparatory	10
EMS 211	Paramedic Medical Emergencies I	5
EMS 217	Paramedic: Hospital Internship I [1]	2
	Hours	**17**
Fourth Semester		
A grade of C or better in all EMS is required for all students.		
EMS 212	Paramedic Medical Emergencies II	7
EMS 213	Paramedic Trauma/Special Populations/ EMS Operations	6
EMS 215	Paramedic Field Internship [1]	4

EMS 218	Paramedic: Hospital Internship II [1]	2
	Hours	**19**
Emergency Medical Services Summer Session		
A grade of C or better in all BIO, CHM, EMS, HSC and NUR is required for all students.		
Electives [2]		4
EMS 216	Paramedic Seminar	3
NUR 210	Physical Assessment	2
	Hours	**9**
	Total Hours	**71**

+ This course meets the World Cultures and Diversity graduation requirement.

[1] Grade of P is required for all students.

[2] Select from the following courses: BIO 230, CHM 100, HSC 104 or HSC 213.

Emergency Medical Technician (Certificate)

Public Service

Program website (https://www.harpercollege.edu/academics/public-service/emergency-medical-services/emt.php)

Program Overview

The 9 credit-hour certificate program provides entry-level emergency medical care knowledge and skills with the delivery of Basic Life Support (BLS) as defined by the National EMS Education Standards. The program is presented in three modules. Each module concludes with a modular exam covering course content presented in that module. Specific enabling objectives are listed on the cover of each presentation's handout.

Modular exams for EMS 111, EMS 112 and EMS 113 must be passed with a minimum of 80% and these scores along with the cumulative quiz scores comprise the course GPA. In addition, a final cumulative exam must be passed with an 80% minimum but is considered pass/fail and the score does not factor into the students GPA. Failure to reach 80% on any modular exam, or the final cumulative exam will result in course failure. Failure to score 75% on the first attempt of any exam will be considered a fail of the exam. Students scoring between 75%-79% will be offered a retake of the exam. Failure to score a minimum of 80% on the retake will be considered a fail of the exam.

A high school diploma or GED, 2.0 Harper GPA, and an age requirement of 18 is necessary. This program is offered only at Northwest Community Hospital.

Admission Requirements: Emergency Medical Technician is a limited enrollment program. For admission requirements (meeting the course prerequisite for EMS 111), please contact the Admissions Outreach Office at 847.925.6700 or visit harpercollege.edu (https://www.harpercollege.edu/).

Program Requirements

Students must complete EMS 111, EMS 112 and EMS 113 modular exams with a C or above and must also complete the final exam with a C or above to successfully earn the EMT certificate.

Code	Title	Hours
Required		
EMS 111	Emergency Medical Technician Preparatory	3
EMS 112	Emergency Medical Technician: Medical Emergencies	3
EMS 113	Emergency Medical Technician: Trauma Emergencies	3
Total Hours		**9**

Paramedic (Certificate)

Public Service

Program website (https://www.harpercollege.edu/academics/public-service/emergency-medical-services/paramedic.php)

Program Overview

This 39 credit-hour certificate program is to be offered in two semesters starting in the fall semester and concluding the following spring semester. The program is designed to expand the entry-level knowledge and skills initially acquired through Emergency Medical Technician (EMT), Advanced Emergency Medical Technician (AEMT), or Emergency Medical Technician-Intermediate (EMT-I) education. Paramedic education includes classroom and lab instruction, plus hospital-based and field-based clinical experiences under the direct supervision of an approved preceptor. The Paramedic program exposes the students to a wide variety of patients, including observation and/or direct patient care in one of the EMS System hospitals and on ALS vehicles. Instructional content and design is based on the National EMS Education Standards (NHTSA, 2009) and is approved by the Illinois Department of Public Health, Division of EMS and Highway Safety. Paramedics must complete the certificate program to be eligible for licensure, but are encouraged to complete the full AAS degree.

The Paramedic program course work, including academic and clinical components, is administered through the EMS Department at Northwest Community Healthcare. Hospital internships are completed at area-wide hospitals while the field internship is completed with a System affiliated Advanced Life Support (ALS) provider agency with which the student is employed or has a participation agreement. After completion of the program, candidates are eligible to take a Paramedic licensure exam.

Admission Requirements

Paramedic is a limited enrollment program. For admission requirements please contact the Admissions Outreach Office at 847.925.6700 or visit harpercollege.edu (https://www.harpercollege.edu/).

Students who apply for this limited enrollment program are obligated to meet current admission requirements and follow program curriculum as defined at the time of acceptance to the program

Program Requirements

A grade of C or better in all EMS courses (EMS 215, EMS 217 and EMS 218 with grades of P) is required for all students.

Code	Title	Hours
Required		
EMS 210	Paramedic Preparatory	10
EMS 211	Paramedic Medical Emergencies I	5
EMS 212	Paramedic Medical Emergencies II	7
EMS 213	Paramedic Trauma/Special Populations/EMS Operations	6
EMS 215	Paramedic Field Internship	4
EMS 216	Paramedic Seminar	3
EMS 217	Paramedic: Hospital Internship I	2
EMS 218	Paramedic: Hospital Internship II	2
Total Hours		**39**

Fashion Design - Fashion Design (AAS)

Art, Design and Performing Arts

Program website (https://www.harpercollege.edu/academics/arts/fashion/fashion-design-degree.php)

Program Overview

This 61 credit-hour program is designed to provide students with entry-level skills in apparel textile design, flat pattern design, draping, fashion illustrating and professional design room practices. Facilities will simulate the professional atmosphere of the fashion industry.

This sequenced degree plan is one of two options that students may pursue to earn the Fashion Design Associate in Applied Science (AAS) degree. **While there are multiple specializations, this particular degree can be awarded only once.**

Program Requirements

First Semester		Hours
FAS 100	Industrial Sewing Methods	3
FAS 101	Flat Pattern I	3
FAS 105	Fashion Design and Illustration I	3
FAS 107	Textiles I	3
FAS 112	Fashion Basics	3
	Hours	**15**
Second Semester		
FAS 102	Flat Pattern II	3
FAS 104	Apparel Design and Construction	3
FAS 110	Costume History [+]	3
FAS 113	Advanced Industrial Sewing Methods	3
MGT 150	Business Math [1]	3
	Hours	**15**
Summer Session		
ENG 101	Composition I	3
Social and Behavioral Science [2]		3
	Hours	**6**
Third Semester		
FAS 109	Fashion Arts and Design	3
FAS 201	Draping	3
GRA 112	Digital Illustration I	3
Humanities [3]		3
	Hours	**12**
Fourth Semester		
FAS 204	Fashion Design Studio	4
FAS 208	Computer-Aided Patternmaking	3
FAS 210	Advanced Fashion Illustration II	3
Humanities [3]		3
	Hours	**13**
	Total Hours	**61**

[+] This course meets the World Cultures and Diversity graduation requirement.

[1] The mathematics requirement for this degree can be met with MGT150 (Business Math) or Math Competency. See Math Competency options (https://www.harpercollege.edu/testing/docs/math-competency-options.php)for information. Students who use Math Competency to meet the mathematics requirement must complete an additional three credit-hour AAS General Education elective. See full list of AAS General Education Electives. (p. 60)

[2] See full list of AAS General Education Electives (p. 60).

[3] ART 105 is recommended.

Fashion Design - Fashion Entrepreneurship (AAS)

Art, Design and Performing Arts

Program website (https://www.harpercollege.edu/academics/arts/fashion/fashion-design-degree.php)

Option 2: Fashion Design Degree – Fashion Entrepreneurship

Program Overview

This 60 credit-hour program is designed to provide students with entry-level skills in apparel textile design, flat pattern design, draping, fashion illustrating and professional design room practices. Facilities will simulate the professional atmosphere of the fashion industry.

This sequenced degree plan is one of two options that students may pursue to earn the Fashion Design Associate in Applied Science (AAS) degree. **While there are multiple specializations, this particular degree can be awarded only once.**

Program Requirements

First Semester		Hours
ENG 101	Composition I	3
FAS 100	Industrial Sewing Methods	3
FAS 101	Flat Pattern I	3
FAS 107	Textiles I	3
FAS 112	Fashion Basics	3
	Hours	**15**
Second Semester		
FAS 102	Flat Pattern II	3
FAS 104	Apparel Design and Construction	3
FAS 110	Costume History [+]	3
FAS 113	Advanced Industrial Sewing Methods	3
GRA 112	Digital Illustration I	3
	Hours	**15**
Third Semester		
FAS 201	Draping	3
FAS 230	Fashion Forecasting	3
MGT 150	Business Math [1]	3
MGT 154	Entrepreneurship	3
SPE 101	Fundamentals of Speech Communication	3
	Hours	**15**

Fourth Semester

FAS 208	Computer-Aided Patternmaking	3
FAS 225	Global Sourcing of Apparel and Textiles	3
FAS 229	Promotion of Fashion	3
Humanities [2]		3
Social and Behavioral Science [2]		3
	Hours	**15**
	Total Hours	**60**

+ This course meets the World Culture and Diversity graduation requirement.

[1] The mathematics requirement for this degree can be met with MGT150 (Business Math) or Math Competency. See Math Competency options (https://www.harpercollege.edu/testing/docs/math-competency-options.php)for information. Students who use Math Competency to meet the mathematics requirement must complete an additional three credit-hour AAS General Education elective. See full list of AAS General Education Electives. (p. 60)

[2] See full list of AAS General Education electives (p. 60).

Apparel Construction (Certificate)

Art, Design and Performing Arts

Program website (https://www.harpercollege.edu/academics/arts/fashion/apparel-construction-certificate.php)

Program Overview

This 18 credit-hour certificate program is designed for those students interested in patternmaking and design. The following courses provide entry-level skills in sewing, flat pattern design and draping. Facilities simulate the professional atmosphere of the fashion industry.

Program Requirements

Code	Title	Hours
Required		
FAS 100	Industrial Sewing Methods	3
FAS 101	Flat Pattern I	3
FAS 102	Flat Pattern II	3
FAS 104	Apparel Design and Construction	3
FAS 113	Advanced Industrial Sewing Methods	3
FAS 201	Draping	3
Total Hours		**18**

Fashion Design Certificate (Certificate)

Art, Design and Performing Arts

Program website (https://www.harpercollege.edu/academics/arts/fashion/fashion-certificate.php)

Program Overview

This 46 credit-hour certificate program is designed to prepare students with entry-level skills in apparel design, flat pattern design, draping, fashion illustrating and professional design room practices of tailoring.

Students enrolled in the program need to demonstrate mastery of basic sewing.

Program Requirements

Code	Title	Hours
FAS 100	Industrial Sewing Methods	3
FAS 101	Flat Pattern I	3
FAS 102	Flat Pattern II	3
FAS 104	Apparel Design and Construction	3
FAS 105	Fashion Design and Illustration I	3
FAS 107	Textiles I	3
FAS 109	Fashion Arts and Design	3
FAS 110	Costume History	3
FAS 112	Fashion Basics	3
FAS 113	Advanced Industrial Sewing Methods	3
FAS 201	Draping	3
FAS 204	Fashion Design Studio	4
FAS 208	Computer-Aided Patternmaking	3
FAS 210	Advanced Fashion Illustration II	3
GRA 112	Digital Illustration I	3
Total Hours		**46**

Textiles (Certificate)

Art, Design and Performing Arts

Program website (https://www.harpercollege.edu/academics/arts/fashion/textiles-certificate.php)

Program Overview

This 12 credit-hour certificate is designed to provide students with an introduction to various textile techniques and proficiency in techniques of choice. The study of textiles includes the technical structure of fabrics and methods of fabrication as well as surface design, which covers a range of techniques for altering or embellishing, such as embroidery, printing, dyeing, applique, etc. This program offers the fiber artist opportunities to explore the technical processes with the artistic development of textiles.

Program Requirements

Code	Title	Hours
Required		
FAS 107	Textiles I	3
FAS 108	Textiles II	3
FAS 117	Textile Knitting Studio	3
FAS 118	Textile Weaving Studio	3
Total Hours		**12**

Fashion Merchandising (AAS)

Art, Design and Performing Arts

Program website (https://www.harpercollege.edu/academics/arts/fashion/fashion-merchandising-degree.php)

Program Overview

This 60 credit-hour curriculum provides all the phases of fashion merchandising, not only in business aspects, but also in aesthetic and creative sides of fashion, such as Visual Merchandising, Fashion Forecasting and Textiles. Students will study fashion history and trends as well as their influence on our lives. Students will also take courses in English composition, computer information systems, sociology and introductory psychology.

An educational background in fashion merchandising opens the door to various careers, such as fashion coordinating, fashion promoting, fashion show production, fashion displaying, stylist, sourcing, apparel quality assessment, retail buying and store managing.

Program Requirements

First Semester		Hours
ENG 101	Composition I	3
FAS 110	Costume History [+]	3
FAS 112	Fashion Basics	3
GRA 101	Introduction to Graphic Arts Technology	3
MGT 111	Introduction to Business Organization	3
	Hours	**15**
Second Semester		
ART 105	Introduction to Visual Art	3
FAS 107	Textiles I	3
MGT 150	Business Math [1]	3
MKT 106	Retail Merchandising	3
PSY 101	Introduction to Psychology [+]	3
	Hours	**15**
Third Semester		
FAS 212	Visual Fashion Merchandising	3
FAS 220	Apparel Analysis	3
FAS 230	Fashion Forecasting	3
MKT 140	Principles of Professional Selling	3
SPE 101	Fundamentals of Speech Communication	3
	Hours	**15**
Fourth Semester		
FAS 116	Fashion Industries Career Practicum and Seminar	3
FAS 225	Global Sourcing of Apparel and Textiles	3
FAS 229	Promotion of Fashion	3
MKT 245	Principles of Marketing	3
Social and Behavioral Science [2]		3
	Hours	**15**
	Total Hours	**60**

[+] This course meets the World Culture and Diversity graduation requirement.

[1] The mathematics requirement for this degree can be met with MGT150 (Business Math) or Math Competency. See Math Competency options (https://www.harpercollege.edu/testing/docs/math-competency-options.php)for information. Students who use Math Competency to meet the mathematics requirement must complete an additional three credit-hour AAS General Education elective. See full list of AAS General Education Electives. (p. 60)

[2] See full list of AAS General Education Electives (p. 60).

Financial Management (Certificate)

Business & Information Technology

Program website (https://www.harpercollege.edu/fasttrack/financial-management-certificate/)

Program Overview

This 22 credit-hour certificate program is designed for those currently employed in or seeking employment in finance departments, banks, investment companies or other finance-related enterprises. The curriculum emphasizes developing the competencies necessary for supervisory and public contact positions in the finance field.

The Associate in Applied Science in Business Administration includes a specialized study area for Financial Management. Please refer to Business Administration in this section of the catalog if you are interested in pursuing a degree in this discipline.

Program Requirements

Code	Title	Hours
Required		
ACC 101	Introduction to Financial Accounting	4
FIN 101	Financial Institution Operations	3
FIN 200	Investment Management/Personal Finance	3
FIN 215	Financial Statements Interpretation and Analysis	3
FIN 225	International Finance	3
MGT 218	Introduction to Finance	3
MGT 154	Entrepreneurship	3
or MGT 111	Introduction to Business Organization	
Total Hours		**22**

Fire Science Technology (AAS)

Public Service

Program website (https://www.harpercollege.edu/academics/public-service/fire-science/fire-science-technology-degree.php)

Program Overview

This 60 credit-hour program in fire science technology is designed to allow students to master fundamental principles in fire and emergency services, fire prevention principles, fire behavior, firefighting strategy and tactics, fire investigation, hazardous materials, as well as the basics of urban, rural, and wild-land firefighting. Many of the courses offered have course approval with the Office of the Illinois State Fire Marshal. The program also provides current firefighters with the education needed to broaden their career paths. This degree program is recognized through Fire and Emergency Services Higher Education (FESHE), a network of the U.S. Fire Administration's National Fire Academy. Many fire departments now require an AAS degree in Fire Science Technology before the student is eligible for entry-level positions while other fire departments offer promotional and salary incentives to graduate.

Program Requirements

First Semester		Hours
ENG 101	Composition I	3
FIS 100	Fundamentals of Fire and Emergency Services	3
FIS 121	Fire Behavior and Combustion	3
FIS 122	Fire Prevention Principles	3
MGT 150	Business Math [1]	3
	Hours	**15**
Second Semester		
BIO 260 or NTR 101	Human Anatomy or Fundamentals of Nutrition	3
FIS 103	Firefighting Strategies and Tactics	3
FIS 104	Building Construction for Fire Protection	3
FIS 132	Hazardous Materials	3
FIS 260	Emergency Services Safety	3
	Hours	**15**
Third Semester		
FIS electives (p. 101)		9
PSY 101	Introduction to Psychology [+]	3
SPE 101	Fundamentals of Speech Communication	3
	Hours	**15**
Fourth Semester		
FIS 145	Fire and Emergency Services Instructor	3
FIS 212	Fire Protection Systems	3
FIS electives (p. 101)		9
	Hours	**15**
	Total Hours	**60**

[1] The mathematics requirement for this degree can be met with MGT 150 (Business Math) or Math Competency. See Math Competency options (https://www.harpercollege.edu/testing/docs/math-competency-options.php) for information. Students who use Math Competency to meet the mathematics requirement must complete an additional three credit-hour AAS General Education elective. See full list of AAS General Education Electives. (p. 60)

[+] This course meets the World Culture and Diversity graduation requirement.

FIS Electives

Code	Title	Hours
Select at least 18 credit hours from the following courses:		18
FIS 102	Fire Service Management and Leadership	
FIS 106	Fire Service Career Exploration Practicum	
FIS 109	Basic Firefighter Certification	
FIS 200	Fire Service Internship	
FIS 210	Fire-Arson Investigation	
FIS 230	Fire and Emergency Services Law	
FIS 240	Fire Apparatus Engineer	
FIS 270	Fire Service Technical Rescue	
EMG 131	Public Safety Dispatcher I	
EMG 231	Public Safety Dispatcher II	
EMS 111	Emergency Medical Technician Preparatory [1]	
EMS 112	Emergency Medical Technician: Medical Emergencies [1]	
EMS 113	Emergency Medical Technician: Trauma Emergencies [1]	

[1] Please note: EMS 111, EMS 112, and EMS 113 are recommended which will provide students with an Emergency Medical Technician Certificate.

Geographic Information Systems (Certificate)

Social Science

Program website (https://www.harpercollege.edu/academics/social-science/geography/geographic-information-systems-certificate.php)

Program Overview

This 18 credit-hour certificate provides students with the skills and knowledge necessary to effectively apply Geographic Information Systems (GIS) and related technologies and methodologies in various business and public sector domains as a technician or analyst. This certificate provides course work and hands-on experience in cartographic design, spatial analysis, spatial database design, the fundamentals of remote sensing, as well as the use of geographic computing devices and accessories.

Program Requirements

Code	Title	Hours
Required		
GIS 100	Introduction to Geospatial Technologies	3
GIS 101	Geospatial Data Acquisition and Management	3
GIS 102	Spatial Analysis	3
GIS 103	Applied Geospatial Technology	3
GIS 200	Introduction to Remote Sensing	3
Electives		
Select three credit hours from the following courses:		3
CIS 106	Computer Logic and Programming Technology [1]	
GEG 100	Cultural Geography	
GEG 101	World Regional Geography	
GEG 103	The Developing World	
GEG 111	Physical Geography	
GIS 104	Geographic Information Systems Internship	
Total Hours		**18**

[1] Placement into MTH 101 or higher.

Graphic Arts Design and Technology - Graphic Design (AAS)

Art, Design and Performing Arts

Program website (https://www.harpercollege.edu/academics/arts/graphic-arts/graphic-arts-degree.php)

Option 1: Graphic Arts Design and Technology Degree – Graphic Design

Program Overview

This 61 credit-hour program is designed to prepare students for a wide range of employment opportunities in the graphic arts industry. This degree provides a well-rounded foundation of knowledge and skills to prepare students for new jobs as well as provide career advancement opportunities. The curriculum includes current application instruction with a focus on creative design techniques. Emphasis is on graphic and web design, including a complete understanding of print production. All students in the program complete a required sequence of classes and then select this graphic design specialty to be employable in this visual communication industry or transfer to a 4 year program.

This sequenced degree plan is one of four options that students may pursue to earn the Graphic Arts Design and Technology Associate in Applied Science (AAS) degree. While there are multiple specializations, this particular degree can be awarded only once.

Program Requirements

First Semester		Hours
ENG 101	Composition I	3
GRA 101	Introduction to Graphic Arts Technology	3
GRA 102	Graphic Arts Desktop Publishing	3
GRA 103	Digital Imaging I	3
Mathematics [1]		3
	Hours	**15**
Second Semester		

ENG 102
  or SPE 101
	Composition II
	  or Fundamentals of Speech Communication
		3

GRA 112	Digital Illustration I	3
GRA 120	Graphic Design I	3
GRA 130	Introduction to Photography	2

GRA 145
  or WEB 110
	Wordpress and Mobile Technologies
	  or Internet Fundamentals
		3

	Hours	**14**
Third Semester		
ART 121	Design I	3
GRA 105	Color Management	3
GRA 111	Print Media Production	3
GRA 131	Digital Photography I	3
GRA 220	Graphic Design II	3
	Hours	**15**
Fourth Semester		
AAS General Education elective(s) (p. 60) [+]		3
Elective(s) (p. 103)		6
GRA 113	Digital Imaging II	3
GRA 221	Graphic Portfolio Design	2
GRA 229	Page Layout	3
	Hours	**17**
	Total Hours	**61**

[1] The mathematics requirement for this degree can be met with Math Competency. See Math Competency options (https://www.harpercollege.edu/testing/docs/math-competency-options.php) for information. Students who use Math Competency to meet the mathematics requirement must complete an additional three credit-hour AAS General Education elective. See full list of AAS General Education electives (p. 60).

[+] Students need to choose a course to meet this requirement that also fulfills the World Cultures and Diversity graduation requirement. See full list of World Cultures and Diversity courses (https://catalog.harpercollege.edu/student-handbook/requirements/world-cultures-diversity-requirements/).

Electives

Code	Title	Hours
ART 121	Design I	3
GRA 113	Digital Imaging II	3
GRA 145	Wordpress and Mobile Technologies	3
GRA 211	Project Management, Scheduling and Estimating	3
GRA 213	Packaging, Finishing and Distribution	3
GRA 214	Digital Illustration II	3
GRA 222	Package Design	3
GRA 230	Prepress and Digital Front End	3
GRA 231	Personalized Marketing	3
GRA 232	Digital Photography II	3
GRA 233	Integrated Digital Printing	3
GRA 299	Digital Photography Capstone	3
MKT 180	Strategic Communication for a Digital World	3
MKT 245	Principles of Marketing	3
WEB 110	Internet Fundamentals	3
WEB 140	Mobile Apps	3
WEB 150	Web Foundations	3

Graphic Arts Design and Technology - Package Design (AAS)

Art, Design and Performing Arts

Program website (https://www.harpercollege.edu/academics/arts/graphic-arts/graphic-arts-degree.php)

Option 2: Graphic Arts Design and Technology Degree – Package Design

Program Overview

This 61 credit-hour program is designed to prepare students for a wide range of employment opportunities in the graphic arts industry. This degree provides a well-rounded foundation of knowledge and skills to prepare students for new jobs as well as provide career advancement opportunities. The curriculum includes current and

proprietary application instruction with a focus on creative package design techniques. Emphasis is on the packaging industry, including a complete understanding of print production for a variety of products. All students in the program complete a required sequence of classes and then select this package design specialty to be employable in this visual communication industry or transfer to a 4 year program.

This sequenced degree plan is one of four options that students may pursue to earn the Graphic Arts Design and Technology Associate in Applied Science (AAS) degree. While there are multiple specializations, this particular degree can be awarded only once.

Program Requirements

First Semester		Hours
ENG 101	Composition I	3
GRA 101	Introduction to Graphic Arts Technology	3
GRA 102	Graphic Arts Desktop Publishing	3
GRA 103	Digital Imaging I	3
Mathematics [1]		3
	Hours	**15**
Second Semester		
ENG 102 or SPE 101	Composition II or Fundamentals of Speech Communication	3
GRA 112	Digital Illustration I	3
GRA 120	Graphic Design I	3
GRA 130	Introduction to Photography	2
GRA 145 or WEB 110	Wordpress and Mobile Technologies or Internet Fundamentals	3
	Hours	**14**
Third Semester		
ART 121	Design I	3
GRA 105	Color Management	3
GRA 111	Print Media Production	3
GRA 220	Graphic Design II	3
GRA 222	Package Design	3
	Hours	**15**
Fourth Semester		
AAS General Education elective(s) (p. 60) [+]		3
GRA 213	Packaging, Finishing and Distribution	3
GRA 214	Digital Illustration II	3
GRA 221	Graphic Portfolio Design	2
GRA 229	Page Layout	3
GRA 230	Prepress and Digital Front End	3
	Hours	**17**
	Total Hours	**61**

[1] The mathematics requirement for this degree can be met with Math Competency. See Math Competency options (https://www.harpercollege.edu/testing/docs/math-competency-options.php) for information. Students who use Math Competency to meet the mathematics requirement must complete an additional three credit-hour AAS General Education elective. See full list of AAS General Education electives (p. 60).

[+] Students need to choose a course to meet this requirement that also fulfills the World Cultures and Diversity graduation requirement.

See full list of World Cultures and Diversity courses (https://catalog.harpercollege.edu/student-handbook/requirements/world-cultures-diversity-requirements/).

Graphic Arts Design and Technology - Print Graphics (AAS)

Art, Design and Performing Arts

Program website (https://www.harpercollege.edu/academics/arts/graphic-arts/graphic-arts-degree.php)

Option 3: Graphic Arts Design and Technology Degree – Print Graphics

Program Overview

This 62 credit-hour program is designed to prepare students for a wide range of employment opportunities in the graphic arts industry. This degree provides a well-rounded foundation of knowledge and skills to prepare students for new jobs as well as provide career advancement opportunities. The curriculum includes current application instruction with a focus on print production and prepress techniques. Emphasis is on print projects, including a complete understanding of planning through print and finishing. All students in the program complete a required sequence of classes and then select this print production specialty to be employable in this visual communication industry or transfer to a 4 year program.

This sequenced degree plan is one of four options that students may pursue to earn the Graphic Arts Design and Technology Associate in Applied Science (AAS) degree. While there are multiple specializations, this particular degree can be awarded only once.

Program Requirements

First Semester		Hours
ENG 101	Composition I	3
GRA 101	Introduction to Graphic Arts Technology	3
GRA 102	Graphic Arts Desktop Publishing	3
GRA 103	Digital Imaging I	3
Mathematics [1]		3
	Hours	**15**
Second Semester		
ENG 102 or SPE 101	Composition II or Fundamentals of Speech Communication	3
GRA 112	Digital Illustration I	3
GRA 120	Graphic Design I	3
GRA 130	Introduction to Photography	2
GRA 145 or WEB 110	Wordpress and Mobile Technologies or Internet Fundamentals	3
	Hours	**14**
Third Semester		
AAS General Education elective(s) (p. 60) [+]		3
GRA 105	Color Management	3
GRA 111	Print Media Production	3
GRA 229	Page Layout	3

GRA 231	Personalized Marketing	3
	Hours	15
Fourth Semester		
AAS General Education elective(s) (p. 60) [+]		3
GRA 211 or MGT 111	Project Management, Scheduling and Estimating or Introduction to Business Organization	3
GRA 213	Packaging, Finishing and Distribution	3
GRA 230	Prepress and Digital Front End	3
GRA 233	Integrated Digital Printing	3
Elective(s) (p. 105)		3
	Hours	18
	Total Hours	**62**

[1] The mathematics requirement for this degree can be met with Math Competency. See Math Competency options (https://www.harpercollege.edu/testing/docs/math-competency-options.php) for information. Students who use Math Competency to meet the mathematics requirement must complete an additional three credit-hour AAS General Education elective. See full list of AAS General Education electives (p. 60).

[+] At least one of the AAS General Education electives must meet the World Cultures and Diversity graduation requirement. See full list of AAS General Education Electives (p. 60). See full list of World Cultures and Diversity courses (https://catalog.harpercollege.edu/student-handbook/requirements/world-cultures-diversity-requirements/). ART 121 is recommended for one of these electives.

Electives
Graphic Arts Electives

Code	Title	Hours
ART 121	Design I	3
GRA 113	Digital Imaging II	3
GRA 131	Digital Photography I	3
GRA 145	Wordpress and Mobile Technologies	3
GRA 211	Project Management, Scheduling and Estimating	3
GRA 214	Digital Illustration II	3
GRA 222	Package Design	3
GRA 232	Digital Photography II	3
GRA 235	Digital Photography Post-Production	3
GRA 299	Digital Photography Capstone	3
MKT 180	Strategic Communication for a Digital World	3
MKT 245	Principles of Marketing	3
WEB 110	Internet Fundamentals	3
WEB 140	Mobile Apps	3
WEB 150	Web Foundations	3

Graphic Arts Design and Technology - Web Design (AAS)

Art, Design and Performing Arts

Program website (https://www.harpercollege.edu/academics/arts/graphic-arts/graphic-arts-degree.php)

Option 4: Graphic Arts Design and Technology Degree – Web Design
Program Overview

This 61 credit-hour program is designed to prepare students for a wide range of employment opportunities in the graphic arts industry. This degree provides a well-rounded foundation of knowledge and skills to prepare students for new jobs as well as provide career advancement opportunities. The curriculum includes current application instruction with a focus on web technologies. Emphasis is on web and graphic design, including a complete understanding of website design and best practices, hosting and internet protocols. All students in the program complete a required sequence of classes and then select this web design specialty to be employable in this visual communication industry or transfer to a 4 year program.

This sequenced degree plan is one of four options that students may pursue to earn the Graphic Arts Design and Technology Associate in Applied Science (AAS) degree. While there are multiple specializations, this particular degree can be awarded only once.

Program Requirements

First Semester		Hours
ENG 101	Composition I	3
GRA 101	Introduction to Graphic Arts Technology	3
GRA 102	Graphic Arts Desktop Publishing	3
GRA 103	Digital Imaging I	3
Mathematics [1]		3
	Hours	15
Second Semester		
ENG 102 or SPE 101	Composition II or Fundamentals of Speech Communication	3
GRA 112	Digital Illustration I	3
GRA 120	Graphic Design I	3
GRA 130	Introduction to Photography	2
Select one of the following:		3
GRA 145	Wordpress and Mobile Technologies	
WEB 110	Internet Fundamentals [2]	
	Hours	14
Third Semester		
ART 121	Design I	3
GRA 105	Color Management	3
Select one of the following:		3
GRA 145	Wordpress and Mobile Technologies	
WEB 110	Internet Fundamentals [2]	
GRA 231	Personalized Marketing	3
WEB 150	Web Foundations	3
	Hours	15
Fourth Semester		
AAS General Education elective(s) (p. 60) [+]		3
GRA 220	Graphic Design II	3
GRA 221	Graphic Portfolio Design	2
WEB 140	Mobile Apps	3
WEB 170	Web UX Fundamentals and Prototyping	3

WEB 180	Web Multimedia	3
	Hours	**17**
	Total Hours	**61**

1 The mathematics requirement (MTH 065 or higher) for this degree can be met with Math Competency. See Math Competency options (https://www.harpercollege.edu/testing/docs/math-competency-options.php) for information. Students who utilize Math Competency to meet the mathematics requirement must complete an additional three credit-hour elective. See full list of AAS General Education electives (p. 60).

2 Both courses must be taken, one in the second semester and one in the third semester.

+ Students need to choose a course to meet this requirement that also fulfills the World Cultures and Diversity graduation requirement. See full list of World Cultures and Diversity courses (https://catalog.harpercollege.edu/student-handbook/requirements/world-cultures-diversity-requirements/).

Digital Press (Certificate)

Art, Design and Performing Arts

Program website (https://www.harpercollege.edu/academics/arts/graphic-arts/digital-press.php)

Program Overview

This 15 credit-hour certificate program is designed for students interested in specializing in digital printing, variable printing, and operating a digital press in the graphic arts field. This certificate will enhance a student's current employment position as well as provide new employment opportunities in the digital print market.

Program Requirements

Code	Title	Hours
Required		
GRA 101	Introduction to Graphic Arts Technology	3
GRA 102	Graphic Arts Desktop Publishing	3
GRA 111	Print Media Production	3
GRA 231	Personalized Marketing	3
GRA 233	Integrated Digital Printing	3
Total Hours		**15**

Fashion Graphic Arts (Certificate)

Art, Design and Performing Arts

Program website (https://www.harpercollege.edu/academics/arts/graphic-arts/fashion-certificate.php)

Program Overview

This 21 credit-hour certificate program is designed to prepare students for direct employment in the graphic arts/fashion industry with a fashion illustration specialty. These graphic arts and fashion courses are designed to provide students with basic knowledge of the graphic arts industry for print as well as the illustration needs of the fashion industry. This program covers the latest computer software, illustration and production techniques.

Program Requirements

Code	Title	Hours
Required		
FAS 105	Fashion Design and Illustration I	3
FAS 210	Advanced Fashion Illustration II	3
GRA 101	Introduction to Graphic Arts Technology	3
GRA 102	Graphic Arts Desktop Publishing	3
GRA 103	Digital Imaging I	3
GRA 112	Digital Illustration I	3
GRA 120	Graphic Design I	3
Total Hours		**21**

Graphic Arts (Certificate)

Art, Design and Performing Arts

Program website (https://www.harpercollege.edu/academics/arts/graphic-arts/graphic-arts-certificate.php)

Program Overview

This 27 credit-hour certificate program is designed to prepare students for direct employment in the printing industry. These technical courses are designed to provide students with basic knowledge of the graphic arts industry. This program covers the latest computer software and production techniques.

Program Requirements

Code	Title	Hours
Required		
GRA 101	Introduction to Graphic Arts Technology	3
GRA 102	Graphic Arts Desktop Publishing	3
GRA 103	Digital Imaging I	3
GRA 111	Print Media Production	3
GRA 112	Digital Illustration I	3
GRA 211 or MGT 111	Project Management, Scheduling and Estimating Introduction to Business Organization	3
GRA 213	Packaging, Finishing and Distribution	3
GRA 229	Page Layout	3
GRA 233	Integrated Digital Printing	3
Total Hours		**27**

Graphic Arts Design (Certificate)

Art, Design and Performing Arts

Program website (https://www.harpercollege.edu/academics/arts/graphic-arts/design-certificate.php)

Program Overview

This 34 credit-hour certificate program is designed to provide students with the skills to gain creative understanding and design materials for

print production. This program covers type and graphic design, page layout, computer graphics, and the production needs of good design.

Program Requirements

Code	Title	Hours
Required		
ART 121	Design I	3
GRA 101	Introduction to Graphic Arts Technology	3
GRA 102	Graphic Arts Desktop Publishing	3
GRA 103	Digital Imaging I	3
GRA 105	Color Management	3
GRA 111	Print Media Production	3
GRA 112	Digital Illustration I	3
GRA 120	Graphic Design I	3
GRA 130	Introduction to Photography	2
GRA 145	Wordpress and Mobile Technologies	3
or WEB 110	Internet Fundamentals	
GRA 220	Graphic Design II	3
GRA 221	Graphic Portfolio Design	2
Total Hours		**34**

Graphic Arts Desktop Publishing (Certificate)

Art, Design and Performing Arts

Program website (https://www.harpercollege.edu/academics/arts/graphic-arts/desktop-publishing-certificate.php)

Program Overview

This 30 credit-hour certificate program is designed for students interested in specializing in electronic prepress highlighting the latest software. This certificate will enhance a student's current employment position, as well as provide new employment opportunities.

Program Requirements

Code	Title	Hours
Required		
GRA 101	Introduction to Graphic Arts Technology	3
GRA 102	Graphic Arts Desktop Publishing	3
GRA 103	Digital Imaging I	3
GRA 105	Color Management	3
GRA 111	Print Media Production	3
GRA 112	Digital Illustration I	3
GRA 145	Wordpress and Mobile Technologies	3
or WEB 110	Internet Fundamentals	
GRA 229	Page Layout	3
GRA 230	Prepress and Digital Front End	3
GRA 233	Integrated Digital Printing	3
Total Hours		**30**

Graphic Arts Digital Photography (Certificate)

Art, Design and Performing Arts

Program website (https://www.harpercollege.edu/academics/arts/graphic-arts/photography-certificate.php)

Program Overview

This 23 credit-hour certificate program is designed for students interested in specializing in digital photography. This certificate will enhance a student's current employment position as well as provide new employment opportunities in the graphic arts industry.

Program Requirements

Code	Title	Hours
Required		
GRA 101	Introduction to Graphic Arts Technology	3
GRA 103	Digital Imaging I	3
GRA 105	Color Management	3
GRA 113	Digital Imaging II	3
GRA 130	Introduction to Photography	2
GRA 131	Digital Photography I	3
GRA 232	Digital Photography II	3
GRA 235	Digital Photography Post-Production	3
or GRA 299	Digital Photography Capstone	
Total Hours		**23**

Graphic Arts Interactive Technology (Certificate)

Art, Design and Performing Arts

Program website (https://www.harpercollege.edu/academics/arts/graphic-arts/interactive-technology-certificate.php)

Program Overview

This 30 credit-hour certificate program is designed to provide students with a foundation in skills encompassing visual design and scripting to develop websites, rich internet applications (RIAs) and interactive multimedia. Individuals seeking entry-level positions in the field of graphic design, web design and interactive multimedia design will find these skills helpful.

Program Requirements

Code	Title	Hours
Required		
GRA 101	Introduction to Graphic Arts Technology	3
GRA 102	Graphic Arts Desktop Publishing	3
GRA 103	Digital Imaging I	3
GRA 120	Graphic Design I	3
GRA 145	Wordpress and Mobile Technologies	3
WEB 150	Web Foundations	3
WEB 170	Web UX Fundamentals and Prototyping	3
WEB 180	Web Multimedia	3

WEB 200	Web Scripting Foundations	3
WEB 235	Interactive Scripting	3
Total Hours		**30**

Graphic Arts Package Design (Certificate)

Art, Design and Performing Arts

Program website (https://www.harpercollege.edu/academics/arts/graphic-arts/package-design-certificate.php)

Program Overview

This 30 credit-hour certificate program is designed to provide students with the skills to gain marketing, creative and a manufacturing understanding of packaging skills and design materials for the packaging industry. This program covers graphic design, computer graphics, packaging-specific software, marketing and finishing needs and the production skills of good package design to get a product to market.

Program Requirements

Code	Title	Hours
Required		
GRA 101	Introduction to Graphic Arts Technology	3
GRA 102	Graphic Arts Desktop Publishing	3
GRA 103	Digital Imaging I	3
GRA 112	Digital Illustration I	3
GRA 120	Graphic Design I	3
GRA 213	Packaging, Finishing and Distribution	3
GRA 214	Digital Illustration II	3
GRA 220	Graphic Design II	3
GRA 222	Package Design	3
GRA 230	Prepress and Digital Front End	3
Total Hours		**30**

Graphic Arts Personalized Marketing (Certificate)

Art, Design and Performing Arts

Program website (https://www.harpercollege.edu/academics/arts/graphic-arts/personalized-marketing-certificate.php)

Program Overview

This 30 credit-hour certificate program is designed to provide students with a foundation in skills to understand the graphic arts industries web-to-print solutions and the importance of personalization and customization in print promotions. This certificate will provide training in basic graphic technologies utilizing variable data applications and digital print production. It will instruct students on how to implement a successful web-to-print workflow as well as analysis of data, digital graphic files, and delivery of the variable printed piece.

Program Requirements

Code	Title	Hours
Required		
CAS 160	Introduction to Business Software Packages	3
CIS 143	Introduction to Database Systems	3
GRA 101	Introduction to Graphic Arts Technology	3
GRA 102	Graphic Arts Desktop Publishing	3
GRA 103	Digital Imaging I	3
GRA 229	Page Layout	3
GRA 230	Prepress and Digital Front End	3
GRA 231	Personalized Marketing	3
WEB 150	Web Foundations	3
WEB 200	Web Scripting Foundations	3
Total Hours		**30**

Graphic Arts Web Design (Certificate)

Art, Design and Performing Arts

Program website (https://www.harpercollege.edu/academics/arts/graphic-arts/web-design-certificate.php)

Program Overview

This 30 credit-hour certificate program is designed to provide students with a foundation in skills to design materials for print and Web media. Individuals seeking graphic designer entry-level positions will find these skills helpful. The program introduces graphic design, page layout, print and web graphics, and the software for web and desktop publishing.

Program Requirements

Code	Title	Hours
Required		
GRA 101	Introduction to Graphic Arts Technology	3
GRA 102	Graphic Arts Desktop Publishing	3
GRA 103	Digital Imaging I	3
GRA 112	Digital Illustration I	3
GRA 120	Graphic Design I	3
GRA 145	Wordpress and Mobile Technologies	3
WEB 110	Internet Fundamentals	3
WEB 150	Web Foundations	3
WEB 170	Web UX Fundamentals and Prototyping	3
WEB 180	Web Multimedia	3
Total Hours		**30**

Health Education Endorsement (Certificate)

Education

Program website (https://www.harpercollege.edu/academics/health/education/health-teaching-endorsement.php)

Program Overview

This 18-hour certificate provides students with the skills and knowledge to teach health education. Upon completion of the certificate program, students who already have a Professional Educator License (PEL) can apply for an endorsement in the field of health education.

Students pursuing a Health Education Endorsement certificate must have at minimum a bachelor's degree and a valid Illinois teacher license. Applicants must take the Illinois Licensure Test Field 211: Health Education and complete an application to have this endorsement added to their teaching certificate.

All courses are offered online.

Program Requirements

KIN 202 can be substituted for any of these courses.

Code	Title	Hours
Required		
HED 200	Health	3
HED 201	Drugs in Our Culture	3
HED 202	Human Sexuality	3
HED 204	Women's Health	3
HED 206	Introduction to Community and Public Health	3
HED 207	Stress and Stress Management	3
Total Hours		**18**

Health Information Technology (AAS)

Health Science

Program website (https://www.harpercollege.edu/academics/health/health-information-technology/health-information-technology-degree.php)

Program Overview

This 60 credit-hour program prepares the graduate to enter a career which blends two rapidly expanding fields, healthcare and information technology. The HIT AAS is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM) for both the Data Management Track and the Revenue Management Track. Students who successfully complete the academic requirements for this program are eligible to sit for the Registered Health Information Technician (RHIT) exam offered by the American Health Information Management Association (AHIMA). The RHIT credential is recognized by healthcare organizations nationwide.

Admission Requirements: The Health Information Technology AAS is an application-based fully online program with a fall start only for both full-time and part-time cohorts. For admission requirements, including a mandatory information session, please contact the Admissions Outreach Office at 847.925.6700 or visit harpercollege.edu (https://www.harpercollege.edu/). Students who apply for this program are obligated to meet current admission requirements and follow program curriculum as defined at the time of acceptance to the program.

Program Requirements

A grade of C or better in all coursework is required.

First Semester		Hours
BIO 135	Introduction to Human Anatomy and Physiology [1]	4
CAS 160	Introduction to Business Software Packages	3
HIT 125	Healthcare Data Structure, Content and Standards	2
HIT 150	Health Information Protection, Analysis, and Technology	2
MTH 165	Elementary Statistics	4
	Hours	**15**
Second Semester		
CIS 143	Introduction to Database Systems	3
ENG 101	Composition I	3
HIT 165	Pathopharmacology for Health Information Professionals	3
HIT 175	Revenue Management, Compliance, and Leadership	2
HSC 112	Medical Terminology	2
	Hours	**13**
Summer Session		
HIT 196	Current Procedural Terminology (CPT) Coding	3
SPE 101	Fundamentals of Speech Communication	3
	Hours	**6**

Third Semester		
HIT 197	International Classification Of Disease (ICD) Coding	3
HIT 199	Health Care Reimbursement	3
HIT 225	Electronic Health Records for Health Information Systems	3
HIT 230	Health Care Information Analysis	3
SOC 101	Introduction to Sociology [+]	3
	Hours	**15**
Fourth Semester		
HIT 235	Advanced Medical Coding	4
HIT 240	Health Information Technology Externship	2
HIT 250	Law for Health Information	3
HIT 299	Health Information Technology Capstone	2
	Hours	**11**
	Total Hours	**60**

[1] BIO 260 and BIO 261 may be substituted for BIO 135 (formerly 160 and 161).

+ This course meets the World Culture and Diversity graduation requirement.

Refrigeration and Air Conditioning Technology (AAS)

Manufacturing and Construction

Program website (https://www.harpercollege.edu/academics/manufacturing/hvac/refrigeration-ac-technology-degree.php)

Program Overview

The courses in this curriculum are theory- designed and service-oriented. Theory courses study heat laws, gas laws, pressures and thermodynamics for energy conservation. Service courses are designed around a strong hands-on philosophy. Emphasis is placed on operation maintenance, service and repairs of heating, air-conditioning and refrigeration systems.

Graduates from this 61 credit-hour program may be employed as service technicians, technical consultants, equipment installers, facility operation engineers, property managers, project managers, insurance adjusters and sales personnel.

Program Requirements

First Semester		Hours
ELT 110	Introductory Electronics	4
HVA 101	Refrigeration Fundamentals	3
HVA 103	Heating Principles	3
HVA 104	Residential Comfort Systems	3
MTH 100	Applied Math for Technical Careers	3
	Hours	**16**
Second Semester		
ENG 101	Composition I	3
HVA 102	Refrigeration Systems	3
HVA 105	Heating and Cooling Controls	3
HVA 108	Domestic Refrigeration Appliances	3
Natural Science [2]		3
	Hours	**15**
Third Semester		
ELT 144	AC and DC Motors	2
ENG 103	Technical and Report Writing	3
HVA 106	Pneumatic Controls Systems	3
HVA 107	Commercial Air Conditioning Systems	3
HVA 109	Commercial Heating Systems	3
HVA 110	Blueprints and Plans for HVAC	2
	Hours	**16**
Fourth Semester		
ELT 145	Variable Frequency Drives	2
Humanities or Social and Behavioral Science [+]		3
HVA 200	HVAC/R Mechanical Codes and Standards	2
HVA 201	Refrigeration System Design	2
HVA 203	Load Calculations	2
HVA 204	Air Distribution	2
HVA 205	Customer Service and Support	1
	Hours	**14**
	Total Hours	**61**

[1] Students may take MTH 100, MTH 101 or higher.
[2] See full list of AAS General Education Electives (p. 60).
[+] The Humanities or Social and Behavioral Science course must meet the World Cultures and Diversity graduation requirement. See full list of AAS General Education Electives (p. 60).

Air Conditioning and Refrigeration Service (Certificate)

Manufacturing and Construction

Program website (https://www.harpercollege.edu/academics/manufacturing/hvac/air-conditioning-service-certificate.php)

Program Overview

This 29 credit-hour certificate program is designed to provide students the skill set to perform preventative maintenance, service and repairs on residential and commercial air conditioning and refrigeration systems. Emphasis is placed on practical application to perform system diagnostics and develop troubleshooting techniques.

Program Requirements

Code	Title	Hours
Required		
ELT 110	Introductory Electronics	4
ELT 144	AC and DC Motors	2
ELT 145	Variable Frequency Drives	2
HVA 101	Refrigeration Fundamentals	3
HVA 102	Refrigeration Systems	3
HVA 105	Heating and Cooling Controls	3
HVA 106	Pneumatic Controls Systems	3
HVA 107	Commercial Air Conditioning Systems	3
HVA 108	Domestic Refrigeration Appliances	3
MTH 100	Applied Math for Technical Careers [1]	3
Total Hours		**29**

[1] Students may take MTH 100, MTH 101 or higher.

Heating Service (Certificate)

Manufacturing and Construction

Program website (https://www.harpercollege.edu/academics/manufacturing/hvac/heating-service.php)

Program Overview

This 22 credit-hour certificate program is designed provide students the skill set to perform preventative maintenance service and repairs on residential and commercial heating systems. Emphasis is placed on practical application to develop troubleshooting techniques, installation of residential heating systems, and perform commercial boiler maintenance.

Program Requirements

Code	Title	Hours
Required		
ELT 110	Introductory Electronics	4
HVA 103	Heating Principles	3
HVA 104	Residential Comfort Systems	3
HVA 105	Heating and Cooling Controls	3
HVA 106	Pneumatic Controls Systems	3
HVA 109	Commercial Heating Systems	3
MTH 100	Applied Math for Technical Careers [1]	3
Total Hours		**22**

[1] Students may take MTH 100, MTH 101 or higher.

Refrigeration Service (Certificate)

Manufacturing and Construction

Program website (https://www.harpercollege.edu/academics/manufacturing/hvac/refrigeration-service-certificate.php)

Program Overview

This 19 credit-hour certificate program is designed provide students the skill set to perform preventative maintenance service and repairs on residential and commercial refrigeration system. Emphasis is placed on practical application to perform system diagnostics and develop troubleshooting techniques.

Program Requirements

Code	Title	Hours
Required		
ELT 110	Introductory Electronics	4
HVA 101	Refrigeration Fundamentals	3
HVA 102	Refrigeration Systems	3
HVA 105	Heating and Cooling Controls	3
HVA 108	Domestic Refrigeration Appliances	3
MTH 100	Applied Math for Technical Careers [1]	3
Total Hours		**19**

[1] Students may take MTH 100, MTH 101 or higher.

Residential Comfort Systems (Certificate)

Manufacturing and Construction

Program website (https://www.harpercollege.edu/academics/manufacturing/hvac/residential-comfort-systems-certificate.php)

Program Overview

This 19 credit-hour certificate program focuses on residential comfort systems and installation. In addition to learning maintenance and repairs of residential heating and cooling systems, the certificate is designed to provide the students the basic concepts of duct design, sheet metal fabrication and equipment selection to improve indoor air quality.

Emphasis is placed on the planning, installation and start up procedure of residential HVAC systems.

Program Requirements

Code	Title	Hours
Required		
ELT 110	Introductory Electronics	4
HVA 101	Refrigeration Fundamentals	3
HVA 103	Heating Principles	3
HVA 104	Residential Comfort Systems	3
HVA 105	Heating and Cooling Controls	3
MTH 100	Applied Math for Technical Careers [1]	3
Total Hours		**19**

[1] Students may take MTH 100, MTH 101 or higher.

Residential Heating, Air Conditioning and Refrigeration (Certificate)

Manufacturing and Construction

Program website (https://www.harpercollege.edu/academics/manufacturing/hvac/residential-heating-ac-certificate.php)

Program Overview

This 19 credit-hour certificate program is designed provide students the skills set to perform preventative maintenance and repairs to residential heating, air conditioning and refrigeration systems. Emphasis is placed on practical application to perform system diagnostics and develop troubleshooting techniques.

Program Requirements

Code	Title	Hours
Required		
ELT 110	Introductory Electronics	4
HVA 101	Refrigeration Fundamentals	3
HVA 103	Heating Principles	3
HVA 105	Heating and Cooling Controls	3
HVA 108	Domestic Refrigeration Appliances	3
MTH 100	Applied Math for Technical Careers [1]	3
Total Hours		**19**

[1] Students may take MTH 100, MTH 101 or higher.

Hospitality Management - Food Service Operations (AAS)

Business & Information Technology

Program website (https://www.harpercollege.edu/academics/business/hospitality/food-service-mgmt-certificate.php)

Option 1: Hospitality Management Degree – Food Service Operations Management

Program Overview

Emphasis is placed on the techniques and technology of the hospitality industry from a management point of view. Graduates of this 60 credit-hour curriculum will be qualified to assume positions as production supervisors, management trainees and small unit managers. Upon successful completion of approved hospitality management courses, students may be granted a Certificate of Completion and a Management Development Diploma from the Educational Foundation of the National Restaurant Association. Upon successful completion of approved hospitality management courses, students may be awarded a certificate from the Educational Institute of the American Hotel and Motel Association. Contact the Hospitality Management coordinator for details.

This sequenced degree plan is one of two options that students may pursue to earn the Hospitality Management Associate in Applied Science (AAS) degree. While there are multiple specializations, this particular degree can be awarded only once.

Program Requirements

First Semester		Hours
ENG 101	Composition I	3
FSM 111	Introduction to the Hospitality Industry	3
FSM 114	Food Standards and Sanitation	2
FSM 115	Menu Planning	3
NTR 101	Fundamentals of Nutrition	3
	Hours	14
Second Semester		
CIS 100	Computer and Digital Literacy [*]	3
ENG 130	Business Writing	3
FSM 109	Introduction to Food Prep/Production	4
FSM 113	Dining Room Operations	3
Mathematics [1]		3
	Hours	16
Third Semester		
FSM 212	Hospitality Supervision	3
FSM 215	Restaurant Layout and Equipment [*]	3
FSM 216	Introduction to Wines, Spirits and Beverage Management [*]	3
FSM 220	Hospitality Promotions [*]	3
PSY 101	Introduction to Psychology [+]	3
	Hours	15
Fourth Semester		
AAS General Education elective(s) (p. 60) [2]		3
FSM 211	Purchasing and Storage	3
FSM 213	Seminar and Internship	3
FSM 214	Hospitality Operations Analysis	3
FSM 230	Hospitality Law and Risk Management	3
	Hours	15
	Total Hours	**60**

[*] At least 15 hours of electives are required. The coordinator recommends the courses with an asterisk (*), however FSM 299 is an option per the catalog.

[1] The mathematics requirement for this degree can be met with Math Competency. See Math Competency options (https://www.harpercollege.edu/testing/docs/math-competency-options.php) for information. Students who use Math Competency to meet the mathematics requirement must complete an additional three credit-hour AAS General Education elective. See full list of AAS General Education electives (p. 60).

[+] This course meets the World Culture and Diversity graduation requirement.

[2] See full list of AAS General Education Electives (p. 60).

Hospitality Management - Hotel Operations Management (AAS)

Business & Information Technology

Program website (https://www.harpercollege.edu/academics/business/hospitality/hospitality-management-degree.php)

Option 2: Hospitality Management Degree – Hotel Operations Management

Program Overview

Emphasis is placed on the techniques and technology of the hospitality industry from a management point of view. Graduates of this 60 credit-hour curriculum will be qualified to assume positions as production supervisors, management trainees and small unit managers. Upon successful completion of approved hospitality management courses, students may be granted a Certificate of Completion and a Management Development Diploma from the Educational Foundation of the National Restaurant Association. Upon successful completion of approved hospitality management courses, students may be awarded a certificate from the Educational Institute of the American Hotel and Motel Association. Contact the Hospitality Management coordinator for details.

This sequenced degree plan is one of two options that students may pursue to earn the Hospitality Management Associate in Applied Science (AAS) degree. While there are multiple specializations, this particular degree can be awarded only once.

Program Requirements

First Semester		Hours
ENG 101	Composition I	3
FSM 111	Introduction to the Hospitality Industry	3
FSM 114	Food Standards and Sanitation	2
FSM 115	Menu Planning	3
PSY 101	Introduction to Psychology [+]	3
	Hours	14
Second Semester		
ENG 130	Business Writing	3

FSM 109	Introduction to Food Prep/Production	4
FSM 120	Front Office Operations [*]	3
Mathematics [1]		3
NTR 101	Fundamentals of Nutrition	3
	Hours	**16**
Third Semester		
CIS 100	Computer and Digital Literacy [*]	3
FSM 113	Dining Room Operations	3
FSM 210	Hospitality Facility Maintenance [*]	3
FSM 212	Hospitality Supervision	3
FSM 220	Hospitality Promotions [*]	3
	Hours	**15**
Fourth Semester		
AAS General Education elective(s) (p. 60) [2]		3
FSM 211	Purchasing and Storage	3
FSM 213	Seminar and Internship	3
FSM 214	Hospitality Operations Analysis	3
FSM 230	Hospitality Law and Risk Management [*]	3
	Hours	**15**
	Total Hours	**60**

+ This course meets the World Culture and Diversity graduation requirement.
* At least 15 credits of electives are required. The coordinator recommends the courses with an asterisk (*), however FSM 299 is an option per the catalog.
1 The mathematics requirement for this degree can be met with Math Competency. See Math Competency options (https://www.harpercollege.edu/testing/docs/math-competency-options.php) for information. Students who use Math Competency to meet the mathematics requirement must complete an additional three credit-hour AAS General Education elective. See full list of AAS General Education electives (p. 60).
2 See full list of AAS General Education electives (p. 60).

Bread and Pastry Arts (Certificate)

Business & Information Technology

Program website (https://www.harpercollege.edu/academics/business/hospitality/bread-pastry-arts-certificate.php)

Program Overview

This is a 26 credit-hour certificate program planned to prepare students for entrance into the food service industry. Graduates may be able to secure positions as qualified bakers and bakers' helpers in institutional, retail and commercial bakeries.

Program Requirements

Code	Title	Hours
Required		
FSM 107	Basic Quantity Bread and Pastry Arts	4
FSM 108	Advanced Quantity Bread and Pastry Arts	4
FSM 114	Food Standards and Sanitation	2
FSM 115	Menu Planning	3
FSM 172	Classical Baking	2
FSM 173	Cake Decoration	2
Electives		
Select at least nine credit hours from the following:		9
FSM 109	Introduction to Food Prep/Production	
FSM 111	Introduction to the Hospitality Industry	
FSM 113	Dining Room Operations	
FSM 163	Garde Manger	
FSM 211	Purchasing and Storage	
FSM 212	Hospitality Supervision	
FSM 214	Hospitality Operations Analysis	
FSM 215	Restaurant Layout and Equipment	
FSM 216	Introduction to Wines, Spirits and Beverage Management	
FSM 220	Hospitality Promotions	
Total Hours		**26**

Culinary Arts (Certificate)

Business & Information Technology

Program website (https://www.harpercollege.edu/academics/business/hospitality/culinary-arts-certificate.php)

Program Overview

This is a 32 credit-hour certificate program planned to prepare students for entrance into the food service industry. Graduates may be able to secure positions as head cooks, assistant cooks, specialty cooks, or chef's assistants.

Program Requirements

Code	Title	Hours
FSM 107	Basic Quantity Bread and Pastry Arts	4
FSM 109	Introduction to Food Prep/Production	4
FSM 110	Advanced Quantity Culinary Arts	4
FSM 113	Dining Room Operations	3
FSM 114	Food Standards and Sanitation	2
FSM 115	Menu Planning	3
FSM 162	Classical Cuisines	4
FSM 163	Garde Manger	2
Electives		
Select at least six credit hours from the following:		6
FSM 111	Introduction to the Hospitality Industry	
FSM 172	Classical Baking	
FSM 173	Cake Decoration	
FSM 211	Purchasing and Storage	
FSM 212	Hospitality Supervision	
FSM 214	Hospitality Operations Analysis	
FSM 215	Restaurant Layout and Equipment	
FSM 216	Introduction to Wines, Spirits and Beverage Management	
FSM 220	Hospitality Promotions	
Total Hours		**32**

Food Service Management (Certificate)

Business & Information Technology

Program website (https://www.harpercollege.edu/academics/business/hospitality/food-service-mgmt-certificate.php)

Program Overview

This is a 26 credit-hour certificate program designed for people wanting to upgrade their management skills enabling them to assume more responsible positions. Upon completion of this program, students may also be awarded a Management Development Diploma by the National Restaurant Association. Contact the Hospitality Management coordinator for details.

Program Requirements

Code	Title	Hours
Required		
FSM 111	Introduction to the Hospitality Industry	3
FSM 113	Dining Room Operations	3
FSM 114	Food Standards and Sanitation	2
FSM 115	Menu Planning	3
FSM 211	Purchasing and Storage	3
FSM 212	Hospitality Supervision	3
FSM 214	Hospitality Operations Analysis	3
FSM 215	Restaurant Layout and Equipment	3
FSM 230	Hospitality Law and Risk Management	3
Total Hours		**26**

Hospitality and Tourism (Certificate)

Business & Information Technology

Program website (https://www.harpercollege.edu/academics/business/hospitality/hospitality-tourism-management-certificate.php)

Program Overview

This 18 credit-hour certificate program will provide students with knowledge of the MICE (Meetings, Incentives, Conventions and Exhibitions) sector of the hospitality industry. Participants will engage in the convention and tourism sector from a business viewpoint. After completing the certificate program, students will be eligible to work in entry-level convention and tourism management in hotels, convention centers and special event venues.

Program Requirements

Code	Title	Hours
FSM 103	Hospitality and Resort Operations	3
FSM 104	Event Management and Special Tourism	3
FSM 153	Convention Sales and Services	3
FSM 256	Sustainable Tourism	3
FSM 260	Tourism and Destination Management	3
FSM 262	Cultural Tourism	3
Total Hours		**18**

Hotel Management (Certificate)

Business & Information Technology

Program website (https://www.harpercollege.edu/academics/business/hospitality/hotel-mgmt-certificate.php)

Program Overview

This 20 credit-hour certificate program is designed for people wanting to upgrade their management skills to assume more responsible positions. Upon completion of this program, students may be awarded a Rooms Division Management Certificate of Specialization from the Educational Institute of the American Hotel and Motel Association. Contact the Hospitality Management coordinator for details.

Program Requirements

Code	Title	Hours
Required		
FSM 120	Front Office Operations	3
FSM 210	Hospitality Facility Maintenance	3
FSM 212	Hospitality Supervision	3
FSM 220	Hospitality Promotions	3
FSM 230	Hospitality Law and Risk Management	3
Electives		
Select at least five credit hours from the following:		5
CIS 100	Computer and Digital Literacy	
FSM 111	Introduction to the Hospitality Industry	
FSM 113	Dining Room Operations	
FSM 114	Food Standards and Sanitation	
FSM 211	Purchasing and Storage	
FSM 214	Hospitality Operations Analysis	
FSM 216	Introduction to Wines, Spirits and Beverage Management	
Total Hours		**20**

Insurance (Certificate)

Business & Information Technology

Program website (https://www.harpercollege.edu/apprenticeship/insurance/)

Program Overview

This 21 credit-hour certificate is designed for those individuals who are exploring an insurance career or are in the insurance field looking to expand their skills and knowledge with focus on property, liability, commercial and personal insurance. The certificate will build a foundation of insurance principles and allow students to get industry certification as they progress through the certificate and as a stackable credential for the AAS-Business Administration degree with Insurance concentration.

Program Requirements

Code	Title	Hours
Required		
ACC 100	Introductory Accounting	3
or ACC 101	Introduction to Financial Accounting	
INS 110	Insurance Fundamentals	3
INS 120	Property and Liability Insurance Principles	3
INS 220	Personal Insurance	3
INS 240	Commercial Insurance	3
MGT 111	Introduction to Business Organization	3
Electives		
Select a minimum of three credit hours from the following courses:		3
MGT 154	Entrepreneurship	
MGT 165	Global Business	
MGT 205	Leadership	
Total Hours		**21**

Interior Design (AAS)

Art, Design and Performing Arts

Program website (https://www.harpercollege.edu/academics/arts/interior-design/interior-design-degree.php)

Program Overview

This 72 credit-hour program is designed for students interested in careers in the furnishing and design industry. The program offers creative, artistic and challenging career opportunities. Graduates are trained to work as kitchen and bath designers, retail designers/salespersons, interior design assistants, assistant buyers of home furnishings, manufacturers' representatives or Merchandise Mart showroom managers.

Periodic field trips are required and will help students learn about current design trends. Students are encouraged to have computers at home although campus computer labs are available for student use. AutoCad and CAD Studio courses are required courses.

The Associate in Applied Science degree in Interior Design may be used to meet the interior design education requirement for registration of interior designers, the curriculum provides an overview of topics tested by the National Council for Interior Design Qualification (NCIDQ) exam, which must be completed before interior designers may be registered by the State of Illinois. In addition, the program is endorsed by the National Kitchen and Bath Association (NKBA).

By completing all required courses in this program, the World Cultures and Diversity graduation requirement has been met for this AAS degree.

Program Requirements

First Semester		Hours
ARC 116	Architectural CAD I	3
ART 121	Design I	3
IND 100	Theory and Fundamentals of Design	2
IND 101	Interior Design Studio I	3
IND 103	History of Furniture and Interior Architecture	3
IND 106	Materials and Sources	3
	Hours	**17**
Second Semester		
IND 102	Interior Design Studio II	3
IND 107	Interior Perspective and Rendering	3
IND 110	Problem Solving and Design Communication	2
IND 114	Codes for Interior Designers	2
IND 116	Interior Detail/Construction Drawing	3
IND 220	CAD Studio	3
	Hours	**16**
Interior Design Summer Session I		
ENG 101	Composition I [1]	3
SPE 101	Fundamentals of Speech Communication	3
	Hours	**6**
Third Semester		
Select one of the following:		3
ART 130	Ancient and Medieval Art	

ART 131	Gothic through Romantic Art	
ART 132	Modern and Contemporary Art	
IND 203	3-D Design Studio	3
IND 206	Architectural Lighting	3
IND 230	Kitchen Design Studio	3
IND 281	Environmental Design	3
	Hours	**15**
Fourth Semester		
IND 207	Interior Design Internship	3
IND 209	Contract Design Studio	3
IND 211	Professional Practices for Interior Design	3
IND 233	Bathroom Design Studio	2
IND 250	Portfolio Development	1
	Hours	**12**
Interior Design Summer Session II		
Mathematics [2]		3
Elective - Select a 3-credit hour elective from the following courses:		3
ARC 117	Architectural CAD II	
GRA 103	Digital Imaging I	
IND 217	Advanced Sketching and Perspective Drawing	
IND 232	Kitchen and Bath CAD Studio	
MGT 154	Entrepreneurship	
MKT 140	Principles of Professional Selling	
	Hours	**6**
	Total Hours	**72**

[1] An assessment test, available in the Assessment and Testing Center, must be taken before registering for ENG 101.

[2] The mathematics requirement for this degree can be met with MGT 150 (Business Math) or Math Competency. See Math Competency options (https://www.harpercollege.edu/testing/docs/math-competency-options.php)for information. Students who use Math Competency to meet the mathematics requirement must complete an additional three credit-hour AAS General Education elective. See full list of AAS General Education Electives. (p. 60)

Architectural CAD (Certificate)

Art, Design and Performing Arts

Program website (https://www.harpercollege.edu/academics/arts/architecture/cad-certificate.php)

Program Overview

This 6 credit-hour certificate program is designed for those just entering the field of architecture or interior design, as well as the practicing professional who desires to learn the necessary skills to be proficient in beginning CAD drafting. Courses include introductory two-dimensional drafting, introductory 3D design with CAD, and proceed through advanced two-dimensional drafting to make work faster and more efficient. Students will learn, through hands-on experience using state-of-the-art computer hardware, the CAD software packages in demand in today's workplace.

Program Requirements

Code	Title	Hours
Required		
ARC 116	Architectural CAD I	3
ARC 117	Architectural CAD II	3
Total Hours		**6**

Interior Design Assistant (Certificate)

Art, Design and Performing Arts

Program website (https://www.harpercollege.edu/academics/arts/interior-design/interior-design-asst-certificate.php)

Program Overview

This 33 credit-hour certificate program is for students interested in an introductory position in the furnishing, retail, or design industries. The certificate prepares students for a position as an Interior Design Assistant or in a variety of areas in the Interior Design industry ranging from wholesale suppliers, retail stores, or sales.

This certificate does not meet the necessary requirements to allow graduates to sit for the National Council of Interior Design Qualifications (NCIDQ) exam. Students may continue their education by pursuing the Associate in Applied Science degree. Students considering this option are encouraged to meet with the program coordinator and/or an academic advisor prior to beginning the program and also when planning their schedule each semester.

Program Requirements

Code	Title	Hours
Required		
ARC 116	Architectural CAD I	3
ART 121	Design I	3
IND 100	Theory and Fundamentals of Design	2
IND 101	Interior Design Studio I	3
IND 102	Interior Design Studio II	3
IND 103	History of Furniture and Interior Architecture	3
IND 106	Materials and Sources	3
IND 107	Interior Perspective and Rendering	3
IND 110	Problem Solving and Design Communication	2
IND 114	Codes for Interior Designers	2
IND 116	Interior Detail/Construction Drawing	3
Electives		
Select one of the following:		3
IND 220	CAD Studio	
IND 230	Kitchen Design Studio	
MKT 140	Principles of Professional Selling	
Total Hours		**33**

Kitchen and Bath Specialty (Certificate)

Art, Design and Performing Arts

Program website (https://www.harpercollege.edu/academics/arts/interior-design/perspective-rendering-certificate.php)

Program Overview

This 44 credit-hour certificate program is designed to give students the opportunity to benchmark their progress through the Interior Design program. Upon completion, students will be qualified to become employed in the kitchen and bath design field.

Program Requirements

Code	Title	Hours
Required		
ARC 116	Architectural CAD I	3
ART 121	Design I	3
IND 100	Theory and Fundamentals of Design	2
IND 101	Interior Design Studio I	3
IND 102	Interior Design Studio II	3
IND 106	Materials and Sources	3
IND 107	Interior Perspective and Rendering	3
IND 110	Problem Solving and Design Communication	2
IND 114	Codes for Interior Designers	2
IND 116	Interior Detail/Construction Drawing	3
IND 203	3-D Design Studio	3
IND 206	Architectural Lighting	3
IND 207	Interior Design Internship	3
IND 230	Kitchen Design Studio	3
IND 232	Kitchen and Bath CAD Studio	3
IND 233	Bathroom Design Studio	2
Total Hours		**44**

Perspective and Rendering (Certificate)

Art, Design and Performing Arts

Program website (https://www.harpercollege.edu/academics/arts/interior-design/kitchen-bath-certificate.php)

Program Overview

This 15 credit-hour certificate program is designed to give students a benchmark while going through the Interior Design program. This certificate's intent is for those students who want to specialize in the perspective and rendering areas of design.

Program Requirements

Code	Title	Hours
Required		
ART 121	Design I	3
IND 100	Theory and Fundamentals of Design	2
IND 101	Interior Design Studio I	3
IND 107	Interior Perspective and Rendering	3
IND 110	Problem Solving and Design Communication	2

IND 217	Advanced Sketching and Perspective Drawing	2
Total Hours		**15**

Personal Training (Certificate)

Health Science

Program website (https://www.harpercollege.edu/academics/science/kinesiology/personal-training-certificate.php)

Program Overview

This 26 credit-hour program prepares the student for entry-level employment in the fitness industry as a personal trainer with the option to pursue a Bachelor's degree in Exercise Science, Kinesiology, Physical Education or Sports Medicine, or continue in Allied Health. The program can be completed in two consecutive semesters and prepares students to pass a national certification exam from the American College of Sports Medicine (ACSM) and the National Strength and Conditioning Association (NSCA).

The curriculum emphasizes the application of the structure and function of the human body as it applies to movement integrating physiology, anatomy, biomechanics, nutrition, psychology, and methodologies of exercise technique and programming. The program provides students with a comprehensive learning environment including practicum experiences, laboratory instruction, and face-to-face classroom interaction. The program is designed for the student to gain practical experience working with clients under the supervision of faculty who are certified as personal trainers.

Employment opportunities include personal training or positions available at health clubs, wellness centers, corporate fitness facilities, medical centers and senior centers.

Program Requirements

Code	Title	Hours
Required		
KIN 202	Standard First Aid and CPR [1]	3
KIN 214	Exercise Technique and Instruction	2
KIN 230	Exercise Science	3
KIN 231	Fitness Assessment and Programming	3
KIN 234	Personal Training Practicum	3
KIN 236	Functional Anatomy	3
NTR 101	Fundamentals of Nutrition	3
SPE 101	Fundamentals of Speech Communication [2]	3
Electives		
Students must complete three credit hours from the following list of courses:		3
BIO 260	Human Anatomy	
BIO 261	Human Physiology	
HED 200	Health	
HED 204	Women's Health	
HSC 112	Medical Terminology	
KIN 111	Basic Weight Training	
KIN 200	Introduction to the Field of Kinesiology	
KIN 203	Wellness for Life	
KIN 223	Sports Psychology	
PSY 101	Introduction to Psychology [2]	
Total Hours		**26**

[1] Students who currently have American Heart Association Basic Life Support (BLS) and Heartsaver First Aid certificates may choose to substitute a 3 credit hour course from the list of electives in place of KIN 202.

[2] Students must meet the prerequisite of placement into ENG 101 prior to registering for this course.

Physical Education Endorsement (Certificate)

Physical and Life Science

Program website (https://www.harpercollege.edu/academics/science/kinesiology/physical-education-endorsement.php)

Program Overview

This 18 credit-hour certificate provides students with the skills and knowledge to teach physical education. Upon completion of the certificate program, students who already have a Professional Educator License (PEL) can apply for an endorsement in the field of physical education.

Students pursuing this Physical Education Endorsement certificate must have at minimum a bachelor's degree and a valid Illinois teacher license. Applicants must take the Illinois Licensure Test Field 213: Physical Education, and complete an application to have this endorsement added to their teaching certificate.

Program Requirements

Code	Title	Hours
Required		
KIN 201	Instructional Strategies for Physical Education	3
KIN 217	Fundamental Sport Skills	3
KIN 218	Adaptive Physical Education	3
KIN 223	Sports Psychology	3
KIN 230	Exercise Science	3
KIN 236	Functional Anatomy	3
Optional (students may replace one of the required courses with one of the following):		
KIN 202	Standard First Aid and CPR	
KIN 221	Care and Prevention of Athletic Injuries	
Total Hours		**18**

Forensic Science (AAS)

Public Service

Program website (https://www.harpercollege.edu/academics/public-service/forensic-science/forensic-science-degree.php)

Program Overview

This 60 credit-hour program will provide instruction to students in the proper techniques of identifying, collecting and packaging physical evidence associated with crime scenes and understanding the importance of proper evidence handling. The forensic science technician is responsible for processing evidence at crime scenes, identifying, collecting, and preserving physical evidence to support law enforcement activities. Graduates may be employed as forensic technicians, property and identification custodians, arson investigators and investigators for local law enforcement and fire services, federal agencies, local, regional and national crime labs, as well as in private industry such as insurance companies, etc.

Program Requirements

First Semester

A grade of C or better in all FIS, LEJ, and MTH courses is required for all students.

		Hours
ENG 101	Composition I	3
FIS 121	Fire Behavior and Combustion	3
LEJ 101	Introduction to Criminal Justice	3
LEJ 116	Forensics I	3
Mathematics [1]		3
	Hours	**15**

Second Semester

A grade of C or better in all CHM and LEJ courses is required for all students.

ANT 215	Introduction to Forensic Anthropology	3
CHM 100 or CHM 110	Chemistry for the Health Sciences or Fundamentals of Chemistry	4
ENG 103	Technical and Report Writing	3
LEJ 217	Forensics II	4
	Hours	**14**

Third Semester

A grade of C or better in all FIS and LEJ courses is required for all students.

CIS 101	Introduction to Computer Information Systems	3
FIS 132	Hazardous Materials	3
FIS 210	Fire-Arson Investigation [2]	3
LEJ 202	Criminal Procedures	3
LEJ 218	Forensics III	4
	Hours	**16**

Fourth Semester

A grade of C or better in all LEJ courses is required for all students.

LEJ 200	Leadership and Ethics for Law Enforcement	3
LEJ 216	Investigative Process	3
LEJ 295	Forensics IV	3

PHI 101	Critical Thinking	3
SOC 101	Introduction to Sociology [+]	3
	Hours	**15**
	Total Hours	**60**

[1] Students must place into MTH 101 or higher. If a student does not place into MTH 101, they may seek to retake the math placement exam or complete a college-level math course with a co-requisite to meet math requirements. Students who place into MTH 101 or higher may take a 3 credit-hour AAS General Education elective. See full list of AAS General Education Electives (p. 60).

[2] Prerequisite of FIS 100 will be waived for Forensic Science students.

[+] This course meets the World Cultures and Diversity graduation requirement.

Law Enforcement and Justice Administration (AAS)

Public Service

Program website (https://www.harpercollege.edu/academics/public-service/law-enforcement/law-justice-degree.php)

Program Overview

This 61 credit-hour program is designed to serve the needs of individuals who are seeking a career in law enforcement and to meet the specific entry-level requirements to be a law enforcement officer in the State of Illinois.

This multi-disciplinary curriculum provides a general education as well as specialized training. Students who successfully complete the initial 30-31 credit hours of this program may continue on with the law enforcement career track (Year 2).

Program Requirements

First Semester

		Hours
ENG 101	Composition I	3
LEJ 101	Introduction to Criminal Justice	3
LEJ 116	Forensics I	3
Mathematics [1]		3
SOC 101	Introduction to Sociology [+]	3
	Hours	**15**

Second Semester

LEJ 201	Criminal Law	3
LEJ 205	Juvenile Justice	3
PHI 101	Critical Thinking	3
PSY 101	Introduction to Psychology [+]	3
SPE 101	Fundamentals of Speech Communication	3
	Hours	**15**

Third Semester

LEJ 104	Corrections	3
LEJ 135	Patrol Procedures	4
LEJ 210	Criminology	3
LEJ 214	Community Policing	3

LEJ 216	Investigative Process	3
	Hours	**16**
Fourth Semester		
EMG, KIN or LEJ electives (p. 122)		6
LEJ 200	Leadership and Ethics for Law Enforcement	3
LEJ 202	Criminal Procedures	3
LEJ 225	Crisis Intervention Communication in Law Enforcement	3
	Hours	**15**
	Total Hours	**61**

[1] Students must place into MTH 101 or higher. If a student does not place into MTH 101, they may seek to retake the math placement exam or complete a college-level math course with a co-requisite to meet math requirements. Students who place into MTH 101 or higher may take a 3 credit-hour AAS General Education elective. See full list of AAS General Education Electives (p. 60).

[+] This course meets the World Cultures and Diversity graduation requirement.

Electives

Code	Title	Hours
EMG 131	Public Safety Dispatcher I	3
EMG 231	Public Safety Dispatcher II	3
KIN 100	Physical Fitness I	1
LEJ 107	Vice and Drug Control	3
LEJ 138	Defensive Techniques	3
LEJ 217	Forensics II	4
LEJ 218	Forensics III	4
LEJ 295	Forensics IV	3
LEJ 299	Law Enforcement Internship	3

Forensic Science Technician (Certificate)

Public Service

Program website (https://www.harpercollege.edu/academics/public-service/forensic-science/forensic-science-technician-certificate.php)

Program Overview

This 17 credit-hour certificate program will provide advanced instruction to the person with select degrees or experience in public safety who wants specialized training. The program focuses on the proper techniques of identifying, collecting, and packaging physical evidence associated with crime scenes and understanding the importance of proper evidence handling. A forensic science technician is responsible for processing evidence at crime scenes, and identifying, collecting, and preserving physical evidence to support law enforcement activities.

Program Requirements

A grade of C or better in all LEJ courses is required for all students.

Code	Title	Hours
Required		
LEJ 101	Introduction to Criminal Justice	3

LEJ 116	Forensics I	3
LEJ 217	Forensics II	4
LEJ 218	Forensics III	4
LEJ 295	Forensics IV	3
Total Hours		**17**

Private Security (Certificate)

Public Service

Program website (https://www.harpercollege.edu/academics/public-service/law-enforcement/private-security-certificate.php)

Program Overview

This 19 credit-hour certificate program is designed to serve the needs of individuals who want the core education the Law Enforcement program offers. It also provides students with basic concepts recognized in the Security Industry. It furthers the partnerships between Law Enforcement and Private Security and offers the student an opportunity to incorporate a Certificate in Private Security within the AAS Degree in Law Enforcement thereby producing a stackable degree, something that did not exist in the Law Enforcement programs in the past.

Program Requirements

A grade of C or better in all LEJ courses is required for all students.

Code	Title	Hours
Required		
LEJ 101	Introduction to Criminal Justice	3
LEJ 116	Forensics I	3
LEJ 135	Patrol Procedures	4
LEJ 140	Introduction to Private Security	3
LEJ 201	Criminal Law	3
LEJ 216	Investigative Process	3
Total Hours		**19**

Legal Studies (AAS)

Public Service

Program website (https://www.harpercollege.edu/academics/public-service/legal-studies/legal-studies-degree.php)

Program Overview

The 60 credit-hour program is designed to prepare men and women as technically qualified assistants to a lawyer. Under the supervision of a lawyer, the paralegal/legal assistant may perform such functions as legal research, investigation, detail work with regard to probate matters, preparation of tax forms and returns, searching public and court records, office management, library service, bookkeeping, serving and filing legal documents and preparing legal forms.

Students pursuing this degree program should be aware that the American Bar Association requires that a minimum nine (9) credit hours must be completed face-to-face or in a synchronous/live online modality.

Program Requirements

First Semester		Hours
ENG 101	Composition I	3
LGS 101	Introduction to Legal Studies	3
PSY 101	Introduction to Psychology [+]	3
Mathematics [1]		3
AAS General Education elective(s) (p. 60) [2]		3
	Hours	**15**
Second Semester		
ENG 103	Technical and Report Writing	3
LGS 103	Litigation	3
LGS 115	Legal Research and Writing	3
LGS 123	Real Property Law	3
LGS 201	Tort Law	3
	Hours	**15**
Third Semester		
LGS 105	Family Law	3
LGS 205 or LGS 215	Contract Law [3] or Today's Law Office	3
LGS 210	The Law of Business Organizations	3
PSC 101	American Politics and Government	3
SOC 101	Introduction to Sociology	3
	Hours	**15**
Fourth Semester		
LEJ or LGS electives (p. 123)		6
LGS 110	Law Office Technology	3
LGS 205 or LGS 208	Contract Law [3] or Internship in Legal Studies	3
LGS 216	Ethics, Legal Writing and the Law Office	3
	Hours	**15**
	Total Hours	**60**

[+] This course meets the World Cultures and Diversity graduation requirement.

[1] The mathematics requirement for this degree can be met with MGT 150 (Business Math) or Math Competency. See Math Competency options (https://www.harpercollege.edu/testing/docs/math-competency-options.php) for information. Students who use Math Competency to meet the mathematics requirement must complete an additional three credit-hour AAS General Education elective. See full list of AAS General Education Electives. (p. 60)

[2] One 3-credit hour AAS General Education elective is required. See full list of AAS General Education Electives (p. 60).

[3] LGS 205 is required to be taken in either the third or fourth semester. LGS 215 or LGS 208 is required for individuals without any legal experience. Individuals with legal experience may substitute another LGS course with Coordinator approval.

Electives

Code	Title	Hours
LEJ 201 or LEJ 202	Criminal Law [1] Criminal Procedures	3
LGS 206	Environmental Law	3
LGS 208	Internship in Legal Studies	3
LGS 212	Law Office Management	3
LGS 215	Today's Law Office	3
LGS 221	Bankruptcy Law	3
LGS 222	Intellectual Property	3
LGS 224	Commercial Real Estate Law	3
LGS 225	Immigration Law	3
LGS 230	Topics in Legal Studies	1-6

[1] Prerequisite of LEJ 101 will be waived for Legal Studies degree students.

Legal Studies (Certificate)

Public Service

Program website (https://www.harpercollege.edu/academics/public-service/legal-studies/legal-studies-certificate.php)

Program Overview

This 24 credit-hour certificate program is designed for those individuals who are currently employed or employable in the legal field or those who, because of legal experience, could benefit from these specialty options. The various choices available allow the student to develop special interests and skills.

To receive a certificate in Legal Studies, students must have earned an Associate in Applied Science degree, an Associate in Arts or Science degree, or a bachelor's degree which includes general education courses equivalent to those required in Harper College's Associate in Applied Science degree in Legal Studies. Students who have earned an AGS degree do not qualify to receive a certificate in Legal Studies. Verification of the degree must be submitted before the certificate will be awarded. Contact evaluation@harpercollege.edu prior to submitting the application for graduation for the Legal Studies certificate to confirm eligibility.

Students who complete the 24 credit-hour certificate are eligible to use our computerized placement service and otherwise work as paralegals/legal assistants/or another supporting role for a practicing attorney. Students should be aware that there are legal restrictions on the practice of law by laymen.

Students pursuing this certificate program should be aware that the American Bar Association requires that a minimum nine (9) credit hours must be completed face-to-face or in a synchronous/live online modality.

Students electing to earn a certificate in Legal Studies are eligible to apply credits earned toward completion of the Associate in Applied Science degree.

Program Requirements

Code	Title	Hours
Required		
LGS 101	Introduction to Legal Studies	3
LGS 103	Litigation	3
LGS 115	Legal Research and Writing	3
LGS 208	Internship in Legal Studies	3
or LGS 215	Today's Law Office	
LGS 216	Ethics, Legal Writing and the Law Office	3
Electives		
Select at least 9 credit hours from the following courses, providing the combination has the approval of the coordinator or an academic advisor:		9
LEJ 201	Criminal Law [1]	
or LEJ 202	Criminal Procedures	
LGS 105	Family Law	
LGS 110	Law Office Technology	
LGS 123	Real Property Law	
LGS 201	Tort Law	
LGS 205	Contract Law	
LGS 206	Environmental Law	
LGS 210	The Law of Business Organizations	
LGS 212	Law Office Management	
LGS 221	Bankruptcy Law	
LGS 222	Intellectual Property	
LGS 224	Commercial Real Estate Law	
LGS 225	Immigration Law	
LGS 230	Topics in Legal Studies	
Total Hours		**24**

[1] Students may take LEJ 201 or LEJ 202, but not both. Prerequisite of LEJ 101 will be waived for Legal Studies certificate students.

Bilingual Endorsement (Certificate)

Liberal Arts, Language and Communication

Program website (https://www.harpercollege.edu/academics/liberal-arts/linguistics/bilingual-endorsement.php)

Program Overview

This 18 credit-hour Bilingual Endorsement Certificate is intended for certified teachers who wish to expand their professional opportunities and to enhance their teaching skills by adding a Bilingual Endorsement Certificate to their portfolio. Students can take endorsement courses at Harper College while they are pursuing their AA degrees. However, they can only earn the endorsement certificate after they complete an undergraduate degree and earn a teaching license. The coursework for this certificate satisfies the requirements of the ISBE Bilingual Endorsement, including the 100 hours of clinical experience. This endorsement allows certified teachers to teach in bilingual programs in grades and languages they are certified to teach. Applicants must complete an application to the State to have this endorsement put on their teaching certificates.

Program Requirements

Code	Title	Hours
Required		
LNG 205	Language and Culture	3
LNG 220	Methods of Teaching English as a Second Language	3
LNG 230	Second Language Assessment	3
LNG 240	Introduction to Pedagogical Grammar	3
LNG 245	Foundations of Bilingual Education	3
LNG 250	Bilingual Teaching Methods and Materials	3
Total Hours		**18**

ESL Endorsement (Certificate)

Liberal Arts, Language and Communication

Program website (https://www.harpercollege.edu/academics/liberal-arts/linguistics/tesol-certificate.php)

Program Overview

This 18 credit-hour ESL Endorsement Certificate is intended for certified teachers who wish to expand their professional opportunities and to enhance their teaching skills by adding an ESL Endorsement Certificate to their portfolio. Students can take endorsement courses at Harper College while they are pursuing their AA degrees. However, they can only earn the endorsement certificate after they complete an undergraduate degree and earn a teaching license. The coursework for this certificate satisfies the requirements of the ISBE ESL endorsement, including the 100 hours of clinical experience. This endorsement allows certified teachers to teach ESL in grades they are certified to teach. Applicants must complete an application to the State to have this endorsement put on their teaching licenses.

Program Requirements

Code	Title	Hours
Required		
LNG 105	Introduction to Language and Linguistics	3
LNG 205	Language and Culture	3
LNG 220	Methods of Teaching English as a Second Language	3
LNG 230	Second Language Assessment	3
LNG 235	Second Language Acquisition (SLA)	3
LNG 240	Introduction to Pedagogical Grammar	3
Total Hours		**18**

Teaching English to Speakers of Other Languages (TESOL) (Certificate)

Liberal Arts, Language and Communication

Program website (https://www.harpercollege.edu/academics/liberal-arts/linguistics/esl-endorsement.php)

Program Overview

This 16 credit-hour certificate provides students with the skills and knowledge necessary to teach English to Speakers of Other Languages (TESOL) in both domestic and international contexts. This certificate provides course work and hands-on experience in theoretical Linguistics, language and culture, English as a Second Language teaching methods, pedagogical grammar, second language assessment, second language acquisition, language classroom observations and (depending on students' choices of elective courses) in other areas such as humanities, education, anthropology, psychology, philosophy, and literature.

Admission Requirements: Students must be eligible for college-level credit courses in order to pursue the TESOL certificate. (If needed, remediation for students will be provided by Harper's Academic Support Services and the Writing Center.) Because the certificate is most often complementary to a college degree, those students who have completed a degree or are pursuing an Associate's degree would be most successful.

Program Requirements

Code	Title	Hours
Required		
A grade of C or better is required in all LNG, ECE and EDU courses for all students.		
LNG 105	Introduction to Language and Linguistics	3
LNG 205	Language and Culture	3
LNG 220	Methods of Teaching English as a Second Language	3
LNG 299	Tesol Practicum	1
Linguistics and Education Electives		
Choose 1 or 2 courses (3 or 6 credit hours) from the following:		3-6
ECE 101	Introduction to Early Childhood Education	
EDU 201	Introduction to Education	
EDU 220	Diversity in Schools and Society	

LNG 230	Second Language Assessment
LNG 235	Second Language Acquisition (SLA)
LNG 240	Introduction to Pedagogical Grammar

Other Electives

Choose 1 course from the list of courses below: [1]		1-4
ANT 101	Introduction to Anthropology	
ANT 202	Cultural Anthropology	
ECE 102	Child Development	
ECE 209	Language Development and Activities for the Young Child	
EDU 202	Pre-Student Teaching Clinical Experience	
EDU 211	Educational Psychology	
EDU 219	Students with Disabilities in School	
EDU 230	Introduction to Language Arts in Elementary/ Middle School Teaching	
EDU 250	Introduction to Technology in Education	
FRN 201	Intermediate French I [2]	
FRN 202	Intermediate French II [2]	
FRN 205	French Conversation [2]	
FRN 210	Introduction to French Literature [2]	
GER 201	Intermediate German I [2]	
GER 202	Intermediate German II [2]	
GER 205	German Conversation [2]	
GER 210	Introduction to German Literature [2]	
GER 230	German Civilization and Culture	
HST 243	Far East in the Modern World	
HUM 105	Great Ideas of World Civilizations	
HUM 106	The Cultures of Asia	
HUM 107	The Cultures of Africa	
HUM 115	International and Regional Studies in Humanities	
JPN 201	Intermediate Japanese I [2]	
JPN 202	Intermediate Japanese II [2]	
JPN 205	Japanese Intensive Oral Practice [2]	
LIT 208	Non-Western Literature	
LNG 225	Language and Health	
PHI 160	Non-Western Philosophy	
SGN 201	American Sign Language III [2]	
SGN 202	American Sign Language IV [2]	
SGN 205	American Sign Language V [2]	
SGN 210	American Sign Language: Cultural Perspective	
SGN 212	Introduction to American Sign Language Literature [2]	
SPA 201	Intermediate Spanish I [2]	
SPA 202	Intermediate Spanish II	
SPA 205	Spanish Conversation [2]	
SPA 210	Introduction to Spanish Literature [2]	

Total Hours **14-20**

[1] If 2 education courses (6 credit hours) were chosen from the Linguistics and Education electives, then no credits are required from this category (0 or 3 credit hours).

[2] This course has a prerequisite that must be met prior to enrollment.

Maintenance Technology (AAS)

Manufacturing and Construction

Program website (https://www.harpercollege.edu/academics/
manufacturing/maintenance/maintenance-technology-degree.php)

Program Overview

This 60 credit-hour program prepares students for employment in the fast growing industrial maintenance service sector of urban society. Graduates may be employed directly in building maintenance as directors, managers or operators for industrial and commercial properties.

Program Requirements

All MNT courses are offered in an 8-week scheduling format.

First Semester		Hours
MFT 102	Introduction to Manufacturing and Safety	4
MFT 134	Print Reading for Industry	3
MNT 135	Plumbing Systems Maintenance	3
MTH 100	Applied Math for Technical Careers [1]	3
WLD 110	Welding I	3
	Hours	16
Second Semester		
ELT 143	Commercial Wiring	2
ENG 101	Composition I	3
MFT 109	Introduction to Manufacturing Maintenance	2
MNT 228	Small Equipment Maintenance	2
WLD 210	Welding II	3
	Hours	12
Third Semester		
AAS General Education elective(s) (p. 60) [2]		3
HVA 101	Refrigeration Fundamentals	3
MFT 105	Machining Processes I	3
MFT 120	Machining Processes II	3
MNT 235	Maintenance Troubleshooting Skills	3
	Hours	15
Fourth Semester		
MNT 255	Belts/Bearings and Mechanical Drives	2
PSC 270	Global Politics [+]	3
SPE 101	Fundamentals of Speech Communication	3
Technical electives [3]		9
	Hours	17
	Total Hours	60

[1] Students may take MTH 100, MTH 101, MTH 103 or higher.
[2] See full list of AAS General Education Electives (p. 60).
[+] This course meets the World Cultures and Diversity graduation requirement.
[3] Technical electives: Select courses not listed as required that have one of the following prefixes: ELT, MFT, MNT, SCM or WLD

Maintenance Mechanic I (Certificate)

Manufacturing and Construction

Program website (https://www.harpercollege.edu/academics/
manufacturing/maintenance/maintenance-mechanic-I-certificate.php)

Program Overview

This 18 credit-hour certificate program provides the basic knowledge and skill for entry-level jobs in commercial and industrial maintenance.

Program Requirements

Code	Title	Hours
Required		
HVA 101	Refrigeration Fundamentals	3
MFT 102	Introduction to Manufacturing and Safety	4
MFT 109	Introduction to Manufacturing Maintenance	2
MFT 134	Print Reading for Industry	3
MTH 100	Applied Math for Technical Careers [1]	3
WLD 110	Welding I	3
Total Hours		**18**

[1] Students may take MTH 100, MTH 101, MTH 103 or higher.

Maintenance Mechanic II (Certificate)

Manufacturing and Construction

Program website (https://www.harpercollege.edu/academics/
manufacturing/maintenance/maintenance-mechanic-II-certificate.php)

Program Overview

This 33 credit-hour certificate program builds on the Maintenance Mechanic I certificate to prepare students for more advanced maintenance jobs in commercial or industrial maintenance.

Program Requirements

Code	Title	Hours
Required		
ELT 143	Commercial Wiring	2
HVA 101	Refrigeration Fundamentals	3
MFT 102	Introduction to Manufacturing and Safety	4
MFT 105	Machining Processes I	3
MFT 109	Introduction to Manufacturing Maintenance	2
MFT 134	Print Reading for Industry	3
MNT 135	Plumbing Systems Maintenance	3
MNT 228	Small Equipment Maintenance	2
MNT 235	Maintenance Troubleshooting Skills	3
MNT 255	Belts/Bearings and Mechanical Drives	2
MTH 100	Applied Math for Technical Careers [1]	3
WLD 110	Welding I	3
Total Hours		**33**

[1] Students may take MTH 100, MTH 101, MTH 103 or higher.

Business Management (Certificate)

Business & Information Technology

Program website (https://www.harpercollege.edu/fasttrack/management-certificate/)

Program Overview

This 21 credit-hour certificate program is designed for those students who wish to further explore the specific qualifications and requirements necessary for entry-level to mid-management positions.

The Associate in Applied Science in Business Administration includes a specialized study area for Management. Please refer to Business Administration in this section of the catalog if you are interested in pursuing a degree in this discipline.

Program Requirements

Code	Title	Hours
Required		
ACC 216	Employment Law	3
MGT 111	Introduction to Business Organization	3
Select one of the following:		3
MGT 150	Business Math	
Math Competency [1]		
MGT 205	Leadership	3
MGT 270	Principles of Management	3
MGT 280	Organizational Behavior	3
MGT 291	Strategic Management	3
Total Hours		**21**

[1] The mathematics requirement for this degree can be met with Math Competency. See Math Competency options (https://www.harpercollege.edu/testing/docs/math-competency-options.php) for information. Students who utilize Math Competency to meet the mathematics requirement must complete an additional three credit-hour elective. See full list of AAS General Education electives (p. 60).

Human Resource Management (Certificate)

Business & Information Technology

Program website (https://www.harpercollege.edu/fasttrack/hr-mgmt-certificate/)

Program Overview

This 21 credit-hour certificate program is designed for those individuals interested in employment in the Human Resources field.

The Associate in Applied Science in Business Administration includes a specialized study area for Human Resource Management. Please refer to Business Administration in this section of the catalog if you are interested in pursuing a degree in this discipline.

Program Requirements

Code	Title	Hours
Required		
ACC 216	Employment Law	3
MGT 111	Introduction to Business Organization	3
MGT 204	Training and Development	3
MGT 265	Human Resources Management	3
MGT 266	Employee Compensation and Benefits	3
MGT 270	Principles of Management	3
MGT 280	Organizational Behavior	3
Total Hours		**21**

Advanced Manufacturing Technology - Mechatronics/Automation (AAS)

Manufacturing and Construction

Program website (https://www.harpercollege.edu/academics/manufacturing/manufacturing-technology/advanced-manufacturing-technology-degree.php)

Option 1: Advanced Manufacturing Technology Degree – Mechatronics/Automation

Program Overview

This 60 credit-hour Advanced Manufacturing Technology degree is designed to prepare students for the modern manufacturing environment. This program will prepare students for employment with companies that have implemented team-oriented design, production, quality and maintenance systems within the manufacturing environment. American manufacturers are increasingly using high-tech equipment that involves multiple integrated systems. It is critical that these companies be able to recruit and employ individuals who know how to operate, troubleshoot and maintain this high-tech equipment.

This sequenced degree plan is one of four options that students may pursue to earn the Advanced Manufacturing Technology Associate in Applied Science (AAS) degree. While there are multiple specializations, this particular degree can be awarded only once.

Program Requirements

First Semester		Hours
MFT 102	Introduction to Manufacturing and Safety	4
MFT 104	Quality and Measurement	2
MFT 108	Manufacturing Processes	3
MFT 109	Introduction to Manufacturing Maintenance	2
MTH 100	Applied Math for Technical Careers [1]	3
	Hours	**14**
Second Semester		
ELT 110	Introductory Electronics	4
ELT 120	Introductory Industrial Electronics Maintenance	2
ENG 101	Composition I	3
MFT 119	Manufacturing Internship	2
Technical electives [2]		5
	Hours	**16**
Third Semester		
AAS General Education elective(s) (p. 60) [+]		6
ELT 135	Optics and Sensors	2
ELT 140	Introduction to Programmable Logic Controllers	2
ELT 143	Commercial Wiring	2
ELT 145	Variable Frequency Drives	2
	Hours	**14**
Fourth Semester		
AAS General Education elective(s) (p. 60) [+]		3
ELT 144	AC and DC Motors	2
ELT 215	Industrial Control Systems	4
ELT 240	Advanced Programmable Logic Controllers	4
Technical elective [2]		3
	Hours	**16**
	Total Hours	**60**

[1] Students make take MTH 100, MTH 101, MTH 103 or higher.

[2] Select courses not listed as required that have one of the following prefixes: ELT, MFT, MNT, SCM, or WLD.

[+] At least one of the AAS General Education electives must meet the World Cultures and Diversity graduation requirement. See full list of AAS General Education Electives (p. 60).

Advanced Manufacturing Technology - Metal Fabrication (AAS)

Manufacturing and Construction

Program website (https://www.harpercollege.edu/academics/manufacturing/manufacturing-technology/advanced-manufacturing-technology-degree.php)

Option 2: Advanced Manufacturing Technology Degree – Metal Fabrication

Program Overview

This 61 credit-hour Advanced Manufacturing Technology degree is designed to prepare students for the modern manufacturing environment. This program will prepare students for employment with companies that have implemented team-oriented design, production, quality and maintenance systems within the manufacturing environment. American manufacturers are increasingly using high-tech equipment that involves multiple integrated systems. It is critical that these companies be able to recruit and employ individuals who know how to operate, troubleshoot and maintain this high-tech equipment.

This sequenced degree plan is one of four options that students may pursue to earn the Advanced Manufacturing Technology Associate in Applied Science (AAS) degree. While there are multiple specializations, this particular degree can be awarded only once.

Program Requirements

First Semester		Hours
MFT 102	Introduction to Manufacturing and Safety	4
MFT 104	Quality and Measurement	2
MFT 108	Manufacturing Processes	3
MFT 109	Introduction to Manufacturing Maintenance	2
MTH 100	Applied Math for Technical Careers [1]	3
	Hours	**14**
Second Semester		
AAS General Education elective(s) (p. 60) [+]		6
MFT 119	Manufacturing Internship	2
MFT 134	Print Reading for Industry	3
WLD 110	Welding I	3

WLD 210	Welding II	3
	Hours	**17**
Third Semester		
ENG 101	Composition I	3
WLD 211	Welding III	4
WLD 212	Welding IV	4
WLD 240	Cutting Processes	3
	Hours	**14**
Fourth Semester		
AAS General Education elective(s) (p. 60) +		6
WLD 225	Advanced Blueprint Reading	2
WLD 245	Welding Fabrication I	4
WLD 250	Welding Fabrication II	4
	Hours	**16**
	Total Hours	**61**

[1] Students may take MTH 100, MTH 101, MTH 103 or higher.

+ At least one of the AAS General Education electives must meet the World Cultures and Diversity graduation requirement. See full list of AAS General Education Electives (p. 60).

Advanced Manufacturing Technology - Precision Machining (AAS)

Manufacturing and Construction

Program website (https://www.harpercollege.edu/academics/manufacturing/manufacturing-technology/advanced-manufacturing-technology-degree.php)

Option 3: Advanced Manufacturing Technology Degree – Precision Machining
Program Overview

This 60 credit-hour Advanced Manufacturing Technology degree is designed to prepare students for the modern manufacturing environment. This program will prepare students for employment with companies that have implemented team-oriented design, production, quality and maintenance systems within the manufacturing environment. American manufacturers are increasingly using high-tech equipment that involves multiple integrated systems. It is critical that these companies be able to recruit and employ individuals who know how to operate, troubleshoot and maintain this high-tech equipment.

This sequenced degree plan is one of four options that students may pursue to earn the Advanced Manufacturing Technology Associate in Applied Science (AAS) degree. While there are multiple specializations, this particular degree can be awarded only once.

Program Requirements

First Semester		Hours
MFT 102	Introduction to Manufacturing and Safety	4
MFT 105	Machining Processes I	3
MFT 132	Dimensional Metrology	3
MFT 134	Print Reading for Industry	3
MTH 100	Applied Math for Technical Careers [1]	3
	Hours	**16**
Second Semester		
ENG 101	Composition I	3
MFT 120	Machining Processes II	3
MFT 121	Machining Processes III	3
MFT 140	Quality Assurance	3
Technical elective [2]		3
	Hours	**15**
Third Semester		
AAS General Education elective(s) (p. 60) +		3
MFT 123	Introduction to CNC Machining	4
MFT 125	CNC Lathe Operation and Programming	4
MFT 210	Computer Integrated Manufacturing	3
	Hours	**14**
Fourth Semester		
AAS General Education elective(s) (p. 60) +		6
MFT 128	CNC Mill Operation and Programming	4
MFT 220	Computer Aided Manufacturing	3
Technical elective [2]		2
	Hours	**15**
	Total Hours	**60**

[1] Students may take MTH 100, MTH 101, MTH 103 or higher.

[2] Select courses not listed as required that have one of the following prefixes: ELT, MFT, MNT, SCM, or WLD

+ At least one of the AAS General Education electives must meet the World Cultures and Diversity graduation requirement. See full list of AAS General Education Electives (p. 60).

Advanced Manufacturing Technology - Supply Chain Management (AAS)

Manufacturing and Construction

Program website (https://www.harpercollege.edu/academics/manufacturing/manufacturing-technology/advanced-manufacturing-technology-degree.php)

Option 4: Advanced Manufacturing Technology Degree – Supply Chain Management
Program Overview

This 60 credit-hour Advanced Manufacturing Technology degree is designed to prepare students for the modern manufacturing environment. This program will prepare students for employment with companies that have implemented team-oriented design, production, quality and maintenance systems within the manufacturing environment. American manufacturers are increasingly using high-tech equipment that involves multiple integrated systems. It is critical that these companies be able to recruit and employ individuals who know how to operate, troubleshoot and maintain this high-tech equipment.

This sequenced degree plan is one of four options that students may pursue to earn the Advanced Manufacturing Technology Associate in

Applied Science (AAS) degree. While there are multiple specializations, this particular degree can be awarded only once.

Program Requirements

First Semester		Hours
MFT 102	Introduction to Manufacturing and Safety	4
MFT 104	Quality and Measurement	2
MFT 108	Manufacturing Processes	3
MFT 109	Introduction to Manufacturing Maintenance	2
MTH 100	Applied Math for Technical Careers [1]	3
	Hours	**14**
Second Semester		
AAS General Education elective(s) (p. 60) [+]		3
ENG 101	Composition I	3
SCM 101	Supply Chain Management	3
SCM 122	Inventory Management	3
SCM 126	Demand Planning	3
	Hours	**15**
Third Semester		
AAS General Education elective(s) (p. 60) [+]		6
SCM 120	Production Control	3
SCM 226	Advanced Planning and Integration	3
Technical elective [2]		3
	Hours	**15**
Fourth Semester		
MFT 119	Manufacturing Internship	2
SCM 123	Transportation	3
SCM 124	Warehouse Operations	3
SCM 125	Procurement	3
Technical electives [2]		5
	Hours	**16**
	Total Hours	**60**

[1] Students may take MTH 100, MTH 101, MTH 103 or higher.

[+] At least one of the AAS General Education electives must meet the World Cultures and Diversity graduation requirement. See full list of AAS General Education Electives (p. 60).

[2] Select courses not listed as required that have one of the following prefixes: ELT, MFT, MNT, SCM or WLD.

Additive Manufacturing (Certificate)

Manufacturing and Construction

Program website (https://www.harpercollege.edu/academics/manufacturing/manufacturing-technology/additive-manufacturing-certificate.php)

Program Overview

This 16 credit-hour certificate program is designed to provide students with the knowledge and skills necessary to gain entry-level employment in the additive manufacturing industry. This certificate focuses on print reading, computer drafting and 3D modeling, and an introduction to the

fundamentals of additive manufacturing. Students will design and print parts using 3D modeling software and 3D printers.

Program Requirements

Code	Title	Hours
EGR 120	Engineering Graphics I (CAD) [1]	4
MFT 102	Introduction to Manufacturing and Safety	4
MFT 134	Print Reading for Industry	3
MFT 210	Computer Integrated Manufacturing	3
MFT 230	Additive Manufacturing	2
Total Hours		**16**

[1] EGR 120 has a Geometry prerequisite. Students may either use placement testing or MTH 070 (or equivalent) to register. https://www.harpercollege.edu/testing/mathplacement.php

Basic Manufacturing (Certificate)

Manufacturing and Construction

Program website (https://www.harpercollege.edu/academics/manufacturing/manufacturing-technology/manufacturing-basic-certificate.php)

Program Overview

This 18 credit-hour certificate program is designed to give students skills in welding and machining to prepare them for entry-level employment in manufacturing. The program of study will emphasize welding theory and extensive practice in major arc welding process including OAW, SMAW, GMAW, and GTAW. Students will learn the fundamentals of machine shop theory and the practical application to the maintenance and fabrication industry. Students will work from blueprints and will be able to fabricate and repair small parts used in a variety of industrial applications.

Program Requirements

Code	Title	Hours
Required		
MFT 105	Machining Processes I	3
MFT 120	Machining Processes II	3
MFT 121	Machining Processes III	3
MFT 134	Print Reading for Industry	3
WLD 110	Welding I	3
WLD 210	Welding II	3
Total Hours		**18**

Computer Numerical Control (CNC) Operator I (Certificate)

Manufacturing and Construction

Program website (https://www.harpercollege.edu/academics/manufacturing/manufacturing-technology/computer-numerical-control-operator-I-certificate.php)

Program Overview

This 19 credit-hour certificate program is designed to provide students with the skills necessary to gain entry-level employment in the manufacturing/precision machining industry. The certificate focuses on skills used in a modern machine shop-blueprint reading, conventional machine tool theory and lab, and an introduction to CNC operations.

Program Requirements

Code	Title	Hours
Required		
MFT 105	Machining Processes I	3
MFT 120	Machining Processes II	3
MFT 121	Machining Processes III	3
MFT 123	Introduction to CNC Machining	4
MFT 134	Print Reading for Industry	3
MTH 100	Applied Math for Technical Careers [1]	3
Total Hours		**19**

[1] Students may take MTH 100, MTH 101, MTH 103 or higher.

Computer Numerical Control (CNC) Operator II (Certificate)

Manufacturing and Construction

Program website (https://www.harpercollege.edu/academics/manufacturing/manufacturing-technology/computer-numerical-control-operator-II-certificate.php)

Program Overview

This 27 credit-hour certificate program is a continuation of the CNC Operator Control I certificate. It is designed to further develop CNC operation skills to prepare students to advance in their career in precision machining.

Program Requirements

Code	Title	Hours
Required		
MFT 105	Machining Processes I	3
MFT 120	Machining Processes II	3
MFT 121	Machining Processes III	3
MFT 123	Introduction to CNC Machining	4
MFT 125	CNC Lathe Operation and Programming	4
MFT 128	CNC Mill Operation and Programming	4
MFT 134	Print Reading for Industry	3
MTH 100	Applied Math for Technical Careers [1]	3
Total Hours		**27**

[1] Students may take MTH 100, MTH 101, MTH 103 or higher.

Manufacturing Production (Certificate)

Manufacturing and Construction

Program website (https://www.harpercollege.edu/academics/manufacturing/manufacturing-technology/manufacturing-production-certificate.php)

Program Overview

This 16 credit-hour certificate program is designed to build the core competencies of manufacturing production to prepare students for internships and entry-level positions in manufacturing. The MFT coursework below prepares the student for an industry recognized certification assessment. Students who successfully pass all four assessments will be recognized as Certified Production Technicians by the Manufacturing Skill Standards Council (MSSC).

Program Requirements

Code	Title	Hours
Required		
MFT 102	Introduction to Manufacturing and Safety	4
MFT 104	Quality and Measurement	2
MFT 108	Manufacturing Processes	3
MFT 109	Introduction to Manufacturing Maintenance	2
MFT 119	Manufacturing Internship	2
MTH 100	Applied Math for Technical Careers [1]	3
Total Hours		**16**

[1] Students may take MTH 100, MTH 101, MTH 103 or higher.

Customer Success and Sales (Certificate)

Business & Information Technology

Program website (https://www.harpercollege.edu/fasttrack/customer-success-sales/)

Program Overview

This 21 credit-hour certificate program, tailored for both seasoned and aspiring sales professionals, prepares for a career in sales and customer success. Students will engage in a practical curriculum designed to sharpen skills in modern sales and customer service. Whether you're eager to master strategic communication for the digital realm, delve into customer relationship management with Salesforce, or explore the dynamics of social commerce, our program equips you with a comprehensive skill set for success. This certificate will help redefine student success in the world of professional selling and account servicing.

To achieve an individualized program designed to complement the student's industrial and educational background, the selection of electives should be made in consultation with the coordinator.

The Associate in Applied Science in Business Administration includes a specialized study area for Customer Success and Sales. Please refer to Business Administration in this section of the catalog if you are interested in pursuing a degree in this discipline.

Program Requirements

Code	Title	Hours
Required		
MGT 111	Introduction to Business Organization	3
or MGT 154	Entrepreneurship	
MKT 140	Principles of Professional Selling	3
MKT 146	Customer Service Skills for Success	3
MKT 147	Salesforce: Customer Relationship Management	3
MKT 180	Strategic Communication for a Digital World	3
MKT 243	Social Commerce and Sales	3
Electives		
Select three credit hours from the following courses:		3
ACC 211	Business Law I	
MKT 217	Advertising	
MKT 247	Consumer Buying Behavior	
MKT 252	Internet Marketing	
Total Hours		**21**

Retail Merchandising (Certificate)

Business & Information Technology

Program website (https://www.harpercollege.edu/academics/business/business-administration/retail-merchandising-certificate.php)

Program Overview

This 18 credit-hour certificate program is designed for individuals with career interests in the retail management field. It is especially appropriate for those individuals employed in retailing who are seeking skills and knowledge which may prepare them for career advancement.

The Associate in Applied Science in Business Administration includes a specialized study area for Marketing. Please refer to Business Administration in this section of the catalog if you are interested in pursuing a degree in this discipline.

Program Requirements

Code	Title	Hours
Required		
MGT 111	Introduction to Business Organization	3
MGT 150	Business Math	3
MKT 106	Retail Merchandising	3
MKT 140	Principles of Professional Selling	3
MKT 245	Principles of Marketing	3
Electives		
Select three credit hours from the following courses:		3
FAS 112	Fashion Basics [1]	
MGT 154	Entrepreneurship	
MGT 205	Leadership	
MKT 217	Advertising	
MKT 252	Internet Marketing	
Total Hours		**18**

[1] FAS 112 and the required courses in this certificate can be used towards the Fashion Merchandising AAS degree.

Social Media Specialist (Certificate)

Business & Information Technology

Program website (https://www.harpercollege.edu/fasttrack/social-media-specialist-certificate/)

Program Overview

This 16 credit-hour certificate program is designed for those interested in obtaining basic social media and internet marketing skills that can be used in any entry-level marketing position, or for individuals who want to run social media marketing campaigns for their business start-ups.

The Associate in Applied Science in Business Administration includes a specialized study area for Social Media Specialist. Please refer to Business Administration in this section of the catalog if you are interested in pursuing a degree in this discipline.

Program Requirements

While not a program requirement, it is recommended that students complete ENG 101 or place into ENG 101.

Code	Title	Hours
Required		
MCM 150	Social Media Management and Measurement	3
MKT 180	Strategic Communication for a Digital World	3
MKT 245	Principles of Marketing	3
MKT 252	Internet Marketing	3
MKT 253	Artificial Intelligence Marketing	1

or MKT 281	Internship in Marketing	
Electives		
Select three credit hours from the following courses:		3
MCM 233	Introduction to Public Relations	
MKT 105	Sports Marketing	
MKT 217	Advertising	
MKT 243	Social Commerce and Sales	
WEB 110	Internet Fundamentals	
WEB 140	Mobile Apps	
Total Hours		**16**

Massage Therapy (Certificate)

Health Science

Program website (https://www.harpercollege.edu/academics/health/massage-therapy/massage-therapy-certificate.php)

Program Overview

This 24 credit-hour program prepares the graduate to be a massage therapist and sit for the required Massage and Bodywork Licensing Exam (MBLEx) and apply for state licensure as a Massage Therapist. Graduates also have the option to take the exam to become Board Certified for Therapeutic Massage and Bodywork. A massage therapist manipulates soft tissue to promote wellness as well as restore and improve function. Massage therapists are employed in diverse environments from chiropractic and rehabilitation settings to beauty and health spas. Many massage therapists own their own businesses as well as travel to on-site locations. Massage therapy can be a full-time career or part-time supplemental employment. This program combines clinical and didactic educational experiences to provide students with the necessary knowledge and skills to provide high-quality massage therapy care to clients with diverse background and clinical presentations. The Massage Therapy Program is programmatically accredited by the Commission on Massage Therapy Accreditation (900 Commonwealth Place, Suite 200-331, Virginia Beach, VA 23464, Phone: 202.888.6790, Email: info@comta.org, Website: www.comta.org (https://comta.org/)). To work in the massage therapy profession, graduates must meet the requirements set by the Illinois Department of Financial and Professional Regulation (IDFPR): 18 years of age, high school graduate or equivalent (GED) and successfully pass a criminal background check. Graduates must pass the Massage and Bodywork Licensing Exam (MBLEx) and apply for licensure with the Illinois Department of Financial and Professional Regulation. Prospective students must meet the current program admissions requirements including a program orientation with the program coordinator.

Program Requirements

A grade of C or better in all MTP courses is required for all students.

First Semester		Hours
MTP 110	Massage Practice Fundamentals	1
MTP 112	Massage Therapy: Structure and Function I	2
MTP 115	Foundations of Massage Therapy I	3
MTP 118	Hydrotherapy and Introduction to Clinic	1.5
MTP 123	Integrative Palpation I	3
	Hours	**10.5**
Second Semester		
MTP 122	Massage Therapy: Structure and Function II	2
MTP 125	Foundations of Massage Therapy II	2.5
MTP 128	Massage Therapy Clinical I	1
MTP 133	Integrative Palpation II	2
	Hours	**7.5**
Third Semester		
MTP 135	Foundations of Massage Therapy III	2
MTP 136	Advanced Treatment Planning and Applied Therapies	2
MTP 137	Massage Practice Development	1
MTP 138	Massage Therapy Clinical II	1
	Hours	**6**
	Total Hours	**24**

Health Care Office Manager (AAS)

Health Science

Program website (https://www.harpercollege.edu/academics/health/medical-office-administration/health-care-office-manager-degree.php)

Program Overview

This 60 credit-hour program is designed for individuals seeking a rewarding career in healthcare as a Health Care Office Manager. Develop the skills necessary to manage the day-to-day office operations of a medical facility. This degree prepares the student for employment in medical offices, clinics, extended care facilities, home health care agencies, or various departments within acute-care settings. For more information attend a Health Career Information Session or schedule an appointment with your academic advisor or program coordinator.

Program Requirements

First Semester		Hours
A grade of C or better is required in all BIO, HSC and MOA courses.		
BIO 135	Introduction to Human Anatomy and Physiology	4
ENG 101	Composition I	3
HSC 112	Medical Terminology	2
MOA 100	Introduction to Medical Assisting	3
MOA 145	Health Care Records Management	2
	Hours	14

Second Semester		
A grade of C or better is required in all BIO, HSC and MOA courses.		
BIO 136	Introduction to Human Disease	3
HSC 225 or LNG 299	Language and Health or Tesol Practicum	3
MGT 111	Introduction to Business Organization	3
MGT 150	Business Math [1]	3
MOA 150	Math Applications in Health Care	1
MOA 235	Health Care Office Procedures	3
	Hours	16

Third Semester		
A grade of C or better is required in all MOA courses.		
Elective(s) (p. 136)		3
MGT 270	Principles of Management	3
MOA 195	Principles of Health Insurance Billing	3
MOA 245	Health Care Office Management	3
SPE 101	Fundamentals of Speech Communication	3
	Hours	15

Fourth Semester		
A grade of C or better is required in all MOA courses.		
AAS General Education elective(s) (p. 60) [2]		3
Elective(s) (p. 136)		6
MOA 299	Medical Office Capstone	3

PSY 101	Introduction to Psychology [+]	3
	Hours	15
	Total Hours	**60**

[1] The mathematics requirement for this degree can be met with MGT150 (Business Math) or Math Competency. See Math Competency options (https://www.harpercollege.edu/testing/docs/math-competency-options.php)for information. Students who use Math Competency to meet the mathematics requirement must complete an additional three credit-hour AAS General Education elective. See full list of AAS General Education Electives. (p. 60)

[2] See full list of AAS General Education Electives (p. 60).

[+] This course meets the World Culture and Diversity graduation requirement.

Electives

Select nine credit hours from the following courses:

Code	Title	Hours
HED 200	Health	3
HED 204	Women's Health	3
HED 206	Introduction to Community and Public Health	3
HSC 104	Health Care Technology and Informatics	2
HSC 105	Introduction to Health Care Today	2
HSC 165	Basic Pharmacology	1
HSC 213	Legal and Ethical Issues in Health Care	2
MOA 215	Clinical Procedures	8
MOA 265	Medical Receptionist Externship	3
MOA 280	Medical Assistant Externship	3
MOA 291	Certified Medical Assistant Exam Review	1

Medical Assistant (Certificate)

Health Science

Program website (https://www.harpercollege.edu/academics/health/medical-office-administration/medical-assistant-certificate.php)

Program Overview

This concentrated 36 credit-hour certificate program is designed for the individual who is interested in becoming a medical assistant in a physician's office or other outpatient health care setting. The curriculum provides training in a variety of administrative and clinical tasks to facilitate the work of the physician. Administrative duties include patient communication, computer skills and record keeping. Clinical duties include assisting with examinations, treatments, diagnostic testing, patient education, and preparation and administration of medications.

The program may be taken part-time and many courses are available on an evening schedule. An orientation and planning session is recommended by the coordinator. Detailed information is available on the website harpercollege.edu (https://www.harpercollege.edu/)

Professional Accreditation and Certification

The Medical Assistant certificate program at Harper College has been accredited by the Commission on the Accreditation of Allied Health Educational Programs (CAAHEP) upon recommendation of the Medical Assistant Education Review Board (MAERB). Graduates of the programs

are eligible to sit for the national certification examination sponsored by the American Association of Medical Assistants (AAMA). The MOA graduate who successfully completes this national examination is credentialed as a Certified Medical Assistant (CMA-AAMA).

Please contact the program coordinator for current name(s) and pertinent information regarding the national professional organization(s) affiliated with the programs in the Medical Office Administration department.

Program Requirements

Required

A grade of C or better in all BIO, HSC and MOA courses is required for all students.

Code	Title	Hours
BIO 135	Introduction to Human Anatomy and Physiology	4
ENG 101	Composition I	3
HSC 112	Medical Terminology	2
MOA 100	Introduction to Medical Assisting	3
MOA 145	Health Care Records Management	2
MOA 150	Math Applications in Health Care	1
MOA 195	Principles of Health Insurance Billing	3
MOA 215	Clinical Procedures [1]	8
MOA 235	Health Care Office Procedures	3
MOA 280	Medical Assistant Externship [1]	3
MOA 291	Certified Medical Assistant Exam Review	1
PSY 101	Introduction to Psychology	3
Total Hours		**36**

[1] Students must submit an American Heart Association Cardiopulmonary Resuscitation for the Health Care Provider (CPR) certificate before entering externship.

Audio/Video Arts Technology (Certificate)

Art, Design and Performing Arts

Program website (https://www.harpercollege.edu/academics/arts/music/av-technology-certificate.php)

Program Overview

The Audio/Video Arts Technology Certificate is a 22-credit hour collaborative program between the Music and Communication Arts departments. Through hands-on experience with digital and analog equipment, software as well as comprehensive course work, students will learn theoretical and technical skills to pursue careers in audio engineering, live sound reinforcement, audio tech, A/V and video production.

Program Requirements

Code	Title	Hours
Required		
MCM 210	Video Editing and Video Post-Production	3
MCM 212	Multi-Camera Production	3
MCM 218	Broadcast Graphics	3
MUS 201	Fundamentals of Audio Technology	3
MUS 202	Recording Techniques	3
MUS 203	Mixing and Mastering Techniques	3
MUS 275	Audio/Visual Arts Technology Internship	1
or MCM 275	Mass Communication Internship	
NET 105	Information Technology Fundamentals	3
Total Hours		**22**

Nursing (AAS)

Health Science

Program website (https://www.harpercollege.edu/academics/health/nursing/rn.php)

Program Overview

This 68 credit-hour program is designed to enable students to receive an Associate in Applied Science degree in Nursing at the completion of the two-year sequence. The program is approved by the Illinois Department of Professional Regulation and accredited by the Accreditation Commission for Education in Nursing, Inc (ACEN).

The Associate in Applied Science degree in Nursing qualifies the graduate for NCLEX-RN and application for Illinois licensure as a registered nurse. Legal limitations could prohibit an individual from taking this licensing examination. Questions regarding these restrictions should be directed to the Illinois Department of Financial and Professional Regulations at 217.782.8556. Positions are available in a variety of health care settings.

Because of the nature of clinical experiences and individual instruction required in this program, specialized technology and the equipment necessary to offer this program, a higher tuition rate is assessed for career-specific courses. These include courses with the NUR prefix. Students pay 1.5 the regular rate of tuition.

Admission Requirements

Nursing is a limited enrollment program. For admission requirements, please contact the Admissions Outreach Office at 847.925.6700 or visit harpercollege.edu (https://www.harpercollege.edu/).

Students who apply for this limited enrollment program are obligated to meet current admission requirements and follow program curriculum as defined at the time of acceptance to the program.

Upon admission to the Nursing program, the mathematics requirement is met.

Program Requirements

A grade of C or better in all coursework is required for all students.

Prerequisites		Hours
BIO 260	Human Anatomy [1]	4
BIO 261	Human Physiology [1]	4
ENG 101	Composition I	3
PSY 101	Introduction to Psychology [+]	3
	Hours	**14**
First Semester		
BIO 230	Microbiology [1]	4
NUR 110	Nursing Concepts, Roles and Practice	3
NUR 112	Fundamentals of Nursing Practice	3
NUR 180	Pathophysiology	3
PSY 228	Psychology of Human Development	3
	Hours	**16**
Second Semester		
NUR 140	Adult Health Concepts I	2
NUR 141	Adult Health Clinical I	2
NUR 150	Psychosocial Concepts	2

NUR 151	Psychosocial Concepts Clinical	2
NUR 210	Physical Assessment	2
NUR 213	Advanced Pharmacology	2
	Hours	**12**
Elective		

Required for students transitioning from the Practical Nursing Certificate Program into the Nursing A.A.S. Degree Program:

NUR 185	Transition to Registered Professional Nursing I	
NUR 195	Transition to Registered Professional Nursing II	
NUR 196	Transition to Registered Professional Nursing Lab/Clinical	
	Hours	**0**
Third Semester		
NUR 201	Child Bearing Concepts	2
NUR 202	Adult Health Concepts II	2
NUR 205	Pediatric Health Concepts	2
NUR 220	Child Bearing Clinical	2
NUR 240	Adult Health Clinical II	2
NUR 250	Pediatric Health Clinical	2
SPE 215	Intercultural Communication	3
	Hours	**15**
Fourth Semester		
Humanities or Social and Behavioral Science [3]		3
NUR 216	Adult Health Concepts III	2
NUR 218	Role Transition Seminar	1
NUR 260	Adult Health Clinical III	2
NUR 280	Role Transition Practicum	3
	Hours	**11**
	Total Hours	**68**

[1] Must be completed no earlier than five years prior to beginning the Nursing program.

[+] This course meets the World Culture and Diversity graduation requirement.

[2] Must be completed no earlier than two years prior to beginning the Nursing program.

[3] See full list of AAS General Education Electives (p. 60).

Certified Nursing Assistant (Certificate)

Health Science

Program website (https://www.harpercollege.edu/academics/health/nursing/cna.php)

Program Overview

This 6 credit-hour certificate program provides theory and training in the basic skills essential to the practice of health care workers who will assist the nurse in the care of patients in a variety of health care settings. Includes simulated practice and opportunity for clinical application. The courses are approved by the Illinois Department of Public Health, Office of Health Regulations. Successful completion is required for application

for the Nurse Aide Competency Exam. **Note**: All students are required to have a valid Social Security number, pass a criminal background check and meet health requirements. Special fees apply.

Opportunities for employment are found in settings such as long-term care facilities, home health agencies, hospitals, and private duty.

This program is also a part of Harper's Dual Credit Career Partnership. Applicants from this high school partnership must have completed the 11th grade prior to entering and must also meet the program's special admission requirements.

Special admission requirement options include placement into ENG 096 or better, ESL 073 with a grade of B or better, or other placement options viewable in the CNA 111 course description.

Program Requirements

A grade of C or better in these courses is required for this certificate.

Code	Title	Hours
Required		
CNA 111	Nursing Assistant Training	4
CNA 112	Nursing Assistant Training: Clinical Experience	2
Total Hours		**6**

Practical Nursing (Certificate)

Health Science

Program website (https://www.harpercollege.edu/academics/health/nursing/pnc.php)

Program Overview

This 38 credit-hour certificate program is designed to educate the student to become a practical nurse.

The Practical Nursing certificate qualifies the graduate to sit for the NCLEX-PN and application for Illinois licensure as a practical nurse. Legal limitations could prohibit an individual from taking this licensing examination. Questions regarding these restrictions should be directed to the Illinois Department of Financial and Professional Regulations at 217.782.8556. Positions in practical nursing are available in a variety of health care settings.

Because of the nature of clinical experiences and individual instruction required in this program and specialized technology and equipment necessary to offer this program, a higher tuition rate is assessed for career specific courses. These include courses with the NUR prefix. Students pay 1.5 the regular rate of tuition.

Admission Requirements

Applicants must have completed a CNA program and be active on the Illinois Department of Public Health, Health Care Worker Registry. For admission requirements, please contact the Admission Outreach Office at 847.925.6700 or visit harpercollege.edu.

Program Requirements

A grade of C or better in all coursework is required for all students.

First Semester		Hours
BIO 260	Human Anatomy	4
ENG 101	Composition I	3
PSY 228	Psychology of Human Development	3
SPE 215	Intercultural Communication	3
	Hours	**13**
Second Semester		
BIO 261	Human Physiology	4
NUR 101	PN Fundamentals	4
NUR 131	PN Fundamentals Clinical	3
NUR 213	Advanced Pharmacology	2
	Hours	**13**
Third Semester		
NUR 102	PN Medical Surgical Nursing	2
NUR 108	PN Mental Health Nursing	1
NUR 109	PN Maternity and Pediatrics	2
NUR 132	PN Medical Surgical Clinical	2
NUR 139	PN Maternity and Pediatrics Clinical	2
	Hours	**9**
Fourth Semester		
NUR 104	PN Field Experience	3
	Hours	**3**
	Total Hours	**38**

Dietetic Internship (Certificate)

Health Science

Program website (https://www.harpercollege.edu/academics/health/dietetic/internship.php)

Program Overview

This 24 credit-hour program prepares graduates to work as a Registered Dietitian in a variety of settings such as hospitals, long-term care facilities, foodservice, schools, community health programs, food companies and wellness centers.

This program is designed exclusively for students holding a minimum of a bachelor's degree in a didactic program in nutrition and dietetics from a U.S. college or university or a foreign equivalent accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND). For admission requirements, please contact the Admissions Outreach Office at 847.925.6700 or visit harpercollege.edu (https://www.harpercollege.edu/).

Graduates of this certificate program receive a verification statement and are eligible to take the registration examination for dietitians to become a Registered Dietitian Nutritionist (RDN).

Program Requirements

Code	Title	Hours
Required		
NTR 296	Dietetic Internship Preparation I	6
NTR 297	Dietetic Internship Preparation II	6
NTR 298	Dietetic Internship Rotation I	6
NTR 299	Dietetic Internship Rotation II	6
Total Hours		**24**

Paraprofessional Educator (AAS)

Education

Program website (https://www.harpercollege.edu/academics/education/paraprofessional-educator/paraprofessional-educator-degree.php)

Program Overview

This 61 credit-hour program is designed to promote the development of skills necessary when working with children in Title 1 programs in the K-12 public or private school classrooms. Students must complete both the required courses for the program and 21 hours of approved electives.

Program Requirements

First Semester		Hours
EDU 201	Introduction to Education	3
ENG 101	Composition I	3
Humanities		3
Mathematics [1]		3
PSY 101	Introduction to Psychology [+]	3
	Hours	**15**
Second Semester		
ECE 102	Child Development	3
EDU 211	Educational Psychology	3
Elective(s) (p. 142)		3
LIT 219	Children's Literature	3
SPE 101	Fundamentals of Speech Communication	3
	Hours	**15**
Third Semester		
EDU 219	Students with Disabilities in School	3
EDU 250	Introduction to Technology in Education	3
Elective(s) (p. 142)		9
	Hours	**15**
Fourth Semester		
EDU 202	Pre-Student Teaching Clinical Experience	1
EDU 230	Introduction to Language Arts in Elementary/Middle School Teaching	3
EDU 220	Diversity in Schools and Society [+]	3
Elective(s) (p. 142)		6
PSC 101	American Politics and Government	3
	Hours	**16**
	Total Hours	**61**

[1] The mathematics requirement for this degree can be met with MGT 150 or Math Competency. See Math Competency options (https://www.harpercollege.edu/testing/docs/math-competency-options.php) for information. Students who use Math Competency to meet the mathematics requirement must complete an additional three credit-hour AAS General Education elective. See full list of AAS General Education Electives. (p. 60)

[+] This course meets the World Cultures and Diversity graduation requirement.

Electives

Code	Title	Hours
Select from the following:		
ANT 101	Introduction to Anthropology	3
ANT 202	Cultural Anthropology	3
ART 105	Introduction to Visual Art	3
ART 130	Ancient and Medieval Art	3
ECE 101	Introduction to Early Childhood Education	3
ECE 226	Assessment and Guidance	3
ECE 250	Health, Nutrition and Safety	3
ECE 252	Child-Family-Community	3
ENG 102	Composition II	3
ESC 110	Exploring the Earth and Universe	4
GEG 101	World Regional Geography	3
HST 111	American Experience to 1877	3
HST 112	American Experience Since 1877	3
LNG 105	Introduction to Language and Linguistics	3
MTH 130	Mathematics for Elementary Teaching I	4
MTH 131	Mathematics for Elementary Teaching II	4
PHY 110	Introduction to Physics	4
PSY 217	Adolescent Psychology	3
PSY 228	Psychology of Human Development	3
SGN 101	American Sign Language I	4

Paraprofessional Educator (Certificate)

Education

Program website (https://www.harpercollege.edu/academics/education/paraprofessional-educator/paraprofessional-educator-certificate.php)

Program Overview

This 31 credit-hour program is designed to promote the skills necessary when working with children in non-Title I positions in K-12 public or private schools. Individuals can also use the certificate program toward completion of the Paraprofessional Educator Associate in Applied Science degree.

Program Requirements

Code	Title	Hours
Required		
ECE 102	Child Development	3
EDU 201	Introduction to Education	3
EDU 202	Pre-Student Teaching Clinical Experience	1
EDU 211	Educational Psychology	3
EDU 219	Students with Disabilities in School	3
EDU 220	Diversity in Schools and Society	3
EDU 230	Introduction to Language Arts in Elementary/Middle School Teaching	3
EDU 250	Introduction to Technology in Education	3
LIT 219	Children's Literature	3
Mathematics [1]		3

PSY 101	Introduction to Psychology [2]	3
Total Hours		**31**

[1] The mathematics requirement for this degree can be met with MGT 150 (Business Math) or Math Competency. See Math Competency options (https://www.harpercollege.edu/testing/docs/math-competency-options.php)for information. Students who use Math Competency to meet the mathematics requirement must complete an additional three credit-hour AAS General Education elective. See full list of AAS General Education Electives. (https://www.harpercollege.edu/catalog/current/programs/aas-general-education-electives.php)

[2] Students must meet the prerequisite of placement into ENG 101 prior to registering for this course.

Physical Therapist Assistant (AAS)

Health Science

Program website (https://www.harpercollege.edu/academics/health/physical-therapist-assistant/degree-program.php)

Program Overview

This 69 credit-hour Physical Therapist Assistant degree program prepares the student to provide physical therapy services under the direction and supervision of a licensed physical therapist, treating patients of all ages who present with various medical conditions that limit their ability to move and perform functional activities in their daily lives. Upon successful completion of the program, students will be eligible to take the National Physical Therapist Examination (NPTE) for licensure as a physical therapist assistant (PTA). The Physical Therapist Assistant Program at Harper College is accredited by the:

Commission on Accreditation in Physical Therapy Education (CAPTE)
3030 Potomac Ave., Suite 100
Alexandria, Virginia 22305-3085
telephone: 703.706.3245
email: accreditation@apta.org
website: www.capteonline.org (https://www.capteonline.org/).

If needing to contact the program coordinator directly, please call 847.925.6861 or email rgura@harpercollege.edu.

Because of the nature of clinical experiences and individualized instruction required in this program and specialized technology and the equipment necessary to offer this program, a higher tuition rate is assessed for career-specific courses including courses with the PTA prefix. Students pay 1.5 the regular rate of tuition.

Admission Requirements

For admission requirements, please contact the Admissions Outreach Office at 847.925.6700 or visit: harpercollege.edu (https://www.harpercollege.edu/) Students who apply for this limited enrollment program are obligated to meet current admission requirements and follow program curriculum as defined at the time of acceptance to the program.

Program Requirements

Prerequisites

A grade of C or better in all BIO, ENG and HSC coursework is required for all students.

		Hours
BIO 260	Human Anatomy [1]	4
ENG 101	Composition I	3
HSC 112	Medical Terminology	2
Mathematics [2]		3
SPE 101	Fundamentals of Speech Communication	3
	Hours	**15**

Physical Therapist Assistant Summer Session I

A grade of C or better in all PTA coursework is required for all students.

PTA 111	Kinesiology for the Physical Therapist Assistant	3
PSY 101	Introduction to Psychology	3
	Hours	**6**

First Semester

A grade of C or better in all BIO, HSC and PTA coursework is required for all students.

BIO 261	Human Physiology [1]	4
PTA 101	Introduction to Physical Therapist Assistant	2
PTA 105	Orthopedics for the Physical Therapist Assistant	4
PTA 120	Therapeutic Exercise for Physical Therapist Assistant I	1
PTA 140	Intervention Fundamentals	2
	Hours	**13**

Second Semester

A grade of C or better in all PTA coursework is required for all students.

PTA 115	Manual Techniques for the Physical Therapist Assistant	2
PTA 160	Pathophysiology for the Physical Therapist Assistant	2
PTA 201	Cardiopulmonary and Integumentary for the Physical Therapist Assistant	4
PTA 205	Therapeutic Modalities	2
PTA 210	Neurology for the Physical Therapist Assistant	4
	Hours	**14**

Physical Therapy Assistant Summer Session II

A grade of C or better in all PTA coursework is required for all students.

PTA 130	Physical Therapist Assistant Clinical Experience I	2
PTA 208	Special Populations for the Physical Therapist Assistant	1
PTA 220	Therapeutic Exercise for Physical Therapist Assistant II	1
	Hours	**4**

Third Semester

A grade of C or better in all PTA coursework is required for all students.

PTA 215	Advanced Interventions	2
PTA 225	Professional Seminar for Physical Therapist Assistants	1
PTA 230	Physical Therapist Assistant Clinical Experience II	4
PTA 235	Physical Therapist Assistant Clinical Experience III	7
SOC 101	Introduction to Sociology +	3
	Hours	**17**
	Total Hours	**69**

[1] Must be completed no earlier than five years prior to beginning the PTA program. Time requirement may be waived for direct patient care providers with a minimum of a two-year allied health degree.

[2] MTH 103 is recommended for students planning to complete a PTA to DPT bridge program in the future. MTH 101 or higher with a grade of C or better may be substituted.

+ This course meets the World Culture and Diversity graduation requirement.

Phlebotomy (Certificate)

Health Science

Program website (https://www.harpercollege.edu/academics/health/
phlebotomy/phlebotomy-certificate.php)

Program Overview

This 8 credit-hour certificate program consists of lectures, student laboratories and a clinical internship arranged in a local health care facility. This certificate is useful for a number of health care professionals interested in developing the skills and techniques involved in the collection of blood from patients or donors for diagnostic testing. In addition, ethical and legal responsibilities, effective communication skills and safe practices are studied. Phlebotomists are employed in hospitals, hospital laboratories, physician offices, clinics, blood banks, commercial laboratories, or similar facilities. Phlebotomy has become a fast-growing health occupation and is considered a profession with a standardized educational curriculum and accepted routes for national certification.
Note: All students wishing to sit for the national certification exam must have earned a High School Diploma or equivalency. Proof of high school graduation or GED is required before registering for PHB 102.

Program Requirements

Code	Title	Hours
Required		
HSC 112	Medical Terminology	2
PHB 101	Phlebotomy Principles and Practice	4
PHB 102	Phlebotomy Internship	2
Elective for Students in the Medical Industry Not Seeking a Phlebotomy Certificate		
PHB 103	Phlebotomy for Health Care Providers	
Total Hours		**8**

Radiologic Technology (AAS)

Health Science

Program website (https://www.harpercollege.edu/academics/health/radiologic-technology/radiology-degree.php)

Program Overview

This 70 credit-hour full-time curriculum prepares radiographers to produce radiographic images of parts of the human body for use in diagnosing medical problems. Additional duties may include processing and evaluating images, evaluating radiology equipment, and providing relevant patient care and education. The program provides both classroom and clinical instruction in anatomy and physiology, radiobiology, pathology, medical imaging and processing, radiation physics, positioning of patients, patient care procedures, radiation protection, and medical ethics.

Radiographers are employed in health care facilities including hospitals and clinics, specialized imaging centers, urgent care clinics, physician offices and government offices. Some radiographers are employed in educational institutions and in industry.

Because of the nature of clinical experiences and individualized instruction in this program, and specialized technology and the equipment necessary to offer this program, a higher tuition rate is assessed for career specific courses. These include courses with the RAD prefix. Students pay 1.5 the regular rate of tuition.

Admission Requirements

Radiologic Technology is a limited enrollment program. For admission requirements, please contact the Admissions Outreach Office at 847.925.6700 or visit harpercollege.edu (https://www.harpercollege.edu/).

Students who apply for this limited enrollment program are obligated to meet current admission requirements and follow program curriculum as defined at the time of acceptance to the program.

Program Requirements

A grade of C or better in all coursework is required for all students.

Prerequisites		Hours
BIO 260	Human Anatomy [1]	4
BIO 261	Human Physiology [1]	4
ENG 101	Composition I	3
Mathematics [2]		3
	Hours	**14**
First Semester		
RAD 101	Introduction to Radiologic Technology	3
	Hours	**3**
Second Semester		
HSC 112	Medical Terminology	2
HSC 213	Legal and Ethical Issues in Health Care	2
RAD 102	Radiologic Procedures I [3]	3
RAD 103	Radiologic Principles I	3
RAD 107	Radiologic Clinical Practicum I	2
	Hours	**12**

Third Semester		
Humanities or Social and Behavioral Science [+]		3
RAD 105	Radiologic Procedures II [3]	3
RAD 106	Radiologic Principles II	3
RAD 108	Radiologic Clinical Practicum II	2
SPE 101	Fundamentals of Speech Communication	3
	Hours	**14**
Fourth Semester		
RAD 225	Radiologic Clinical Practicum III	3
	Hours	**3**
Fifth Semester		
RAD 221	Radiologic Procedures III [3]	3
RAD 223	Advanced Radiologic Principles	2
RAD 224	Radiobiology	2
RAD 240	Radiologic Clinical Practicum IV	3
RAD 228	Digital Imaging	2
	Hours	**12**
Sixth Semester		
RAD 236	Radiologic Pathology	3
RAD 238	Sectional Anatomy For Imaging	2
RAD 239	Radiologic Special Procedures	3
RAD 251	Radiologic Clinical Practicum V	3
RAD 258	Radiologic Seminar	1
	Hours	**12**
	Total Hours	**70**

[1] Must be completed no earlier than five years prior to beginning the Radiologic Technology program.

[2] MTH 101, MTH 103 or higher with a grade of C or better.

[3] Radiography lab requires a minimum of 4 hours per month radiography lab practice.

[+] Students need to choose a course to meet this requirement that also fulfills the World Cultures and Diversity graduation requirement.

Computed Tomography (CT) (Certificate)

Health Science

Program website (https://www.harpercollege.edu/academics/health/radiologic-technology/computed-tomography.php)

Program Overview

This 16 credit-hour, year-long certificate program prepares ARRT registered radiologic technologists to produce cross-sectional images of the body, utilizing computed tomography equipment, in order to diagnose abnormalities that are difficult to evaluate with conventional radiography. The program offers a combination of clinical and didactic educational experiences that will provide the student with the necessary knowledge and skills to become an entry-level CT technologist. Students will learn the physics and instrumentation of computed tomography, clinical procedures and protocols, patient care and radiation safety. Upon completion of the CT program, the radiologic technologist will be eligible for certification by the American Registry of Radiologic Technologists (ARRT) in Computed Tomography.

Because of the nature of clinical experiences and individualized instruction in this program, and specialized technology, and the equipment necessary to offer this program, a higher tuition rate is assessed for career specific courses. These include courses with the RAD prefix. Students pay 1.5 the regular rate of tuition.

Admission Requirements

Computed Tomography is a limited enrollment program. For admission requirements, please contact the Admissions Outreach Office at 847.925.6700 or visit harpercollege.edu (https://www.harpercollege.edu/).

Students who apply for this limited enrollment program are obligated to meet current admission requirements and follow program curriculum as defined at the time of acceptance to the program.

Program Requirements

A grade of C or better in all coursework is required for all students.

First Year		
First Semester		**Hours**
RAD 238	Sectional Anatomy For Imaging	2
RAD 260	CT Procedures/Patient Care	3
RAD 261	CT Principles I	3
	Hours	**8**
Second Semester		
RAD 262	CT Principles II	2
RAD 263	CT Clinical Education I	3
	Hours	**5**
Second Year		
First Semester		
RAD 264	CT Clinical Education II	3
	Hours	**3**
	Total Hours	**16**

Magnetic Resonance Imaging (Certificate)

Health Science

Program website (https://www.harpercollege.edu/academics/health/radiologic-technology/mri.php)

Program Overview

This 16 credit-hour, year-long certificate program prepares ARRT registered radiologic technologists to produce cross-sectional images of the body, utilizing magnetic resonance equipment, in order to diagnose abnormalities that are difficult to evaluate with conventional radiography. The program offers a combination of clinical and didactic educational experiences that will provide the student with the necessary knowledge and skills to become an entry-level MRI technologist. Students will learn the physics and instrumentation of magnetic imaging, clinical procedures and protocols, patient care and MRI safety screening. Upon completion of the MRI program, the radiologic technologist will be eligible to sit for the registry examination given by the American Registry of Radiologic Technologists (ARRT) in MRI.

Because of the nature of clinical experiences and individualized instruction in this program, and specialized technology, and the equipment necessary to offer this program, a higher tuition rate is assessed for career specific courses. These include courses with the RAD prefix. Students pay 1.5 the regular rate of tuition.

Admission Requirements

Magnetic Resonance Imaging is a limited enrollment program. For admission requirements, please contact the Admissions Outreach Office at 847.925.6700 or visit harpercollege.edu (https://www.harpercollege.edu/).

Students who apply for this limited enrollment program are obligated to meet current admission requirements and follow program curriculum as defined at the time of acceptance to the program.

Program Requirements

A grade of C or better in all coursework is required for all students.

First Semester		Hours
RAD 238	Sectional Anatomy For Imaging	2
RAD 270	MRI Patient Care and Procedures	3
RAD 271	MRI Principles I	3
	Hours	**8**
Second Semester		
RAD 272	MRI Principles II	2
RAD 273	MRI Clinical Education I	3
	Hours	**5**
Third Semester		
RAD 274	MRI Clinical Education II	3
	Hours	**3**
	Total Hours	**16**

Mammography (Certificate)

Health Science

Program website (https://www.harpercollege.edu/academics/health/radiologic-technology/mammography.php)

Program Overview

This four credit-hour certificate program will provide the American Registry of Radiologic Technology (ARRT) registered radiologic technologist the opportunity to expand their skills into the study of the theory and practice of mammography. The mammogram is a non-invasive procedure that assists in the detection of breast cancer.

Individuals who successfully complete this program are eligible to take the ARRT Mammography registry exam.

Because of the nature of clinical experiences and individualized instruction in this certificate, and specialized technology and the equipment necessary to offer this certificate, a higher tuition rate is assessed for career-specific courses. These include courses with the RAD prefix. Students pay 1.5 the regular rate of tuition.

Admission Requirements

Mammography is a limited enrollment program. For admission requirements, please contact the Admissions Outreach

Office at 847.925.6700 or visit harpercollege.edu (https://www.harpercollege.edu/).

Students who apply for this limited enrollment program are obligated to meet current admission requirements and follow program curriculum as defined at the time of acceptance to the program.

Program Requirements

A grade of C or better in all RAD courses is required for all students.

Code	Title	Hours
Required		
RAD 215	Principles and Procedures in Mammography	3
RAD 216	Mammography Externship	1
Total Hours		**4**

Respiratory Care Science Degree (RCSD) (AAS)

Health Science

Program website (https://www.harpercollege.edu/academics/health/respiratory/respiratory-degree.php)

Program Overview

This 69 credit-hour Respiratory Care Science degree program prepares students to practice as nationally credentialed respiratory care practitioners serving as key members of the healthcare team. Skilled in assessing patients with breathing disorders in the emergency room, intensive care units and many other areas in healthcare facilities, respiratory therapists work directly with physicians on newborn, pediatric or adult patients to analyze oxygen levels and breathing difficulty. Therapists administer prescribed medications to relieve breathing distress, provide pulmonary/lung therapies, and conduct lung diagnostics for all ages. Graduates find employment in many settings such as hospitals, pulmonary rehabilitation clinics, doctors' offices, sleep labs, homecare, and air-life transport teams as they provide direct patient care in the emergency room, newborn/pediatric/adult intensive care units, and many other essential areas.

Respiratory care students will attend lab and lecture classes and engage in experiential clinical rotations in area hospitals. The proposed AAS degree program is seeking accreditation from The Commission on Accreditation for Respiratory Care (CoARC) which will qualify graduates to sit for national board credentialing exams to become a Registered Respiratory Therapist (RRT) through the National Board for Respiratory Care immediately upon degree completion.

Admission Requirements

Respiratory Care Science is a limited enrollment program. For admission requirements, please contact the Admissions Outreach Office at 847.925.6700 or visit harpercollege.edu (https://www.harpercollege.edu/). Students who apply for this limited enrollment program are obligated to meet the current admission requirements and follow program curriculum as defined at the time of acceptance to the program.

Program Requirements

Prerequisites		Hours
A grade of C or better in all BIO, HSC and ENG coursework is required for all students.		
BIO 260	Human Anatomy	4
ENG 101	Composition I	3
HSC 112	Medical Terminology	2
MTH 101	Quantitative Literacy [1]	3
	Hours	**12**

First Semester

A grade of C or better in all RCS coursework is required for all students.		
RCS 101	Fundamentals of Respiratory Care	3
RCS 102	Respiratory Care Instrumentation I	3
RCS 103	Pharmacology for Respiratory Care	2
RCS 104	Cardioplumonary Anatomy and Physiology	2
RCS 105	Respiratory Care Clinical Practice I	3
	Hours	**13**

Second Semester

A grade of C or better in all RCS coursework is required for all students.		
RCS 106	Cardiopulmonary Disease	3
RCS 107	Critical Care Concepts	3
RCS 108	Respiratory Care Instrumentation II	3
RCS 109	Respiratory Care Clinical Practice II	3
	Hours	**12**

Third Semester

A grade of C or better in all RCS coursework is required for all students.		
RCS 210	Respiratory Care Clinical Practice III	3
RCS 211	Neonatal/Pediatric Respiratory Care	2
SPE 101	Fundamentals of Speech Communication	3
	Hours	**8**

Fourth Semester

A grade of C or better in all RCS coursework is required for all students.		
BIO 230	Microbiology	4
RCS 212	Mechanical Ventilation	3
RCS 213	Respiratory Care Clinical Practice IV	3
RCS 214	Respiratory Care Rehabilitation/ Diagnostics	2
	Hours	**12**

Fifth Semester

A grade of C or better in all RCS and CHM coursework is required for all students.		
CHM 100	Chemistry for the Health Sciences	4
PSY 101	Introduction to Psychology [+]	3
RCS 215	Respiratory Care Research	2
RCS 216	Respiratory Care ICU Internship	3
	Hours	**12**
	Total Hours	**69**

[+] This course meets the World Culture and Diversity graduation requirement.

[1] MTH 101 or higher.

Supply Chain Management (AAS)

Manufacturing and Construction

Program website (https://www.harpercollege.edu/academics/manufacturing/supply-chain-management/supply-chain-management-degree.php)

Program Overview

This 60 credit-hour program is designed to provide End-to-End (E2E) supply chain education for those persons pursuing entry level jobs and careers in supply chain management.

The curriculum focuses on both the technical and employability skills needed to be successful in this field. Targeted educational content covers all supply chain functions including demand planning, inventory management, production control, procurement and sourcing, transportation, and warehouse management and logistics design. The degree provides business content including accounting and economics ensuring that students have a solid base of general financial acumen. The additional general education requirements focus on the critical skills of communication and presentation competencies, organizational savvy, relationship management, team building and problem solving.

Program Requirements

First Semester		Hours
ENG 101	Composition I	3
MGT 111	Introduction to Business Organization	3
SCM 101	Supply Chain Management	3
SCM 122	Inventory Management	3
SCM 126	Demand Planning	3
	Hours	**15**
Second Semester		
ACC 101	Introduction to Financial Accounting	4
MGT 150	Business Math [1]	3
PSY 101	Introduction to Psychology [+]	3
SCM 123	Transportation	3
SCM 127	Customer Service and Fulfillment [1]	2
	Hours	**15**
Third Semester		
PSY 245	Industrial/Organizational Psychology [2]	3
SCM 120	Production Control	3
SCM 124	Warehouse Operations	3
SCM 125	Procurement	3
SCM 228	Logistics Design and Strategy [3]	3
	Hours	**15**
Fourth Semester		
CIS 101	Introduction to Computer Information Systems	3
ECO 211	Microeconomics	3
MGT 165	Global Business [+]	3
PHI 150	Business Ethics	3
SPE 101	Fundamentals of Speech Communication	3
	Hours	**15**
	Total Hours	**60**

[+] This course meets the World Cultures and Diversity graduation requirement.

[1] The mathematics requirement for this degree can be met with MGT 150 or Math Competency. See Math Competency options (https://www.harpercollege.edu/testing/docs/math-competency-options.php) for information. Students who use Math Competency to meet the mathematics requirement must complete an additional three credit-hour AAS General Education elective. See full list of AAS General Education Electives. (p. 60)

[2] May substitute SCM 226. (Prerequisites of SCM 101 and SCM 120 must be met prior to registration.)

[3] May substitute SCM 259. (Prerequisites of SCM 101 and SCM 125 must be met prior to registration.)

[4] May substitute SCM 226 or SCM 259. (Prerequisites must be met prior to registration.)

End-to-End (E2E) Supply Chain Management (Certificate)

Manufacturing and Construction

Program website (https://www.harpercollege.edu/academics/manufacturing/supply-chain-management/end-to-end-certificate.php)

Program Overview

This 30 credit-hour certificate is designed for those currently employed or seeking employment in a variety of supply chain management roles. The End-to-End (E2E) scope includes courses from each of our four certificate programs, and comprehensively covers all functions across the supply chain from procurement to operations and logistics, while focusing on the linkages and collaboration across functions and departments. This particular curriculum is especially suitable for those in the field who are seeking to fill in knowledge or skill gaps in their total preparation.

Required:

Code	Title	Hours
SCM 101	Supply Chain Management	3
SCM 120	Production Control	3
SCM 122	Inventory Management	3
SCM 123	Transportation	3
SCM 124	Warehouse Operations	3
SCM 125	Procurement	3
SCM 126	Demand Planning	3
SCM 226	Advanced Planning and Integration	3
SCM 228	Logistics Design and Strategy	3
SCM 259	Sourcing and Supply Management	3
Total Hours		**30**

Inventory/Production Control (Certificate)

Manufacturing and Construction

Program website (https://www.harpercollege.edu/academics/manufacturing/supply-chain-management/inventory-production-control-certificate.php)

Program Overview

This 12 credit-hour certificate program is designed for those currently employed in or seeking employment in the fields of inventory management or production control. The coursework is specific to those jobs and careers that focus on production planning, MRP and ERP processes, inventory management, and materials management. The Associate in Applied Science in Manufacturing Technology includes a specialized study area for Supply Chain Management. Please refer to Manufacturing Technology in this section of the catalog if you are interested in pursuing a degree in this discipline.

Program Requirements

Code	Title	Hours
Required		
SCM 101	Supply Chain Management	3
SCM 120	Production Control	3
SCM 122	Inventory Management	3
SCM 226	Advanced Planning and Integration	3
Total Hours		**12**

Logistics (Certificate)

Manufacturing and Construction

Program website (https://www.harpercollege.edu/academics/manufacturing/supply-chain-management/logistics-certificate.php)

Program Overview

This 12 credit-hour certificate program is designed for those currently employed in or seeking employment in logistics and related positions. Topics covered will provide the graduate with knowledge of transportation, warehouse operations, material handling, packaging and overall logistics design and strategy. The Associate in Applied Science in Manufacturing Technology includes a specialized study area for Supply Chain Management. Please refer to Manufacturing Technology in this section of the catalog if you are interested in pursuing a degree in this discipline.

Program Requirements

Code	Title	Hours
Required		
SCM 101	Supply Chain Management	3
SCM 123	Transportation	3
SCM 124	Warehouse Operations	3
SCM 228	Logistics Design and Strategy	3
Total Hours		**12**

Procurement (Certificate)

Manufacturing and Construction

Program website (https://www.harpercollege.edu/academics/manufacturing/supply-chain-management/procurement-certificate.php)

Program Overview

This 12 credit-hour certificate program is designed for those currently employed in or seeking employment in procurement positions in various industries. The curriculum emphasizes developing the competencies necessary for success in the procurement and supply management field. The Associate in Applied Science in Advanced Manufacturing includes a specialized study area for Supply Chain Management. Please refer to Manufacturing in this section of the catalog if you are interested in pursuing a degree in this discipline.

Program Requirements

Code	Title	Hours
Required		
SCM 101	Supply Chain Management	3
SCM 122	Inventory Management	3
SCM 125	Procurement	3
SCM 259	Sourcing and Supply Management	3
Total Hours		**12**

Supply Chain Management (Certificate)

Manufacturing and Construction

Program website (https://www.harpercollege.edu/academics/manufacturing/supply-chain-management/supply-chain-management-certificate.php)

Program Overview

This 18 credit-hour certificate program is designed to provide education for those working directly in supply chain management or fields related to supply chain management, or for those seeking employment in this area. The content in this curriculum focuses on key functions across the supply chain with regard to technical knowledge, communication and problem solving. The AAS Degree in Manufacturing Technology also offers a specialization in Supply Chain Management.

Program Requirements

Code	Title	Hours
Required		
SCM 101	Supply Chain Management	3
SCM 120	Production Control	3
SCM 122	Inventory Management	3
SCM 123	Transportation	3
SCM 125	Procurement	3
SCM 126	Demand Planning	3
Total Hours		**18**

Surgical Technology (AAS)

Health Science

Program website (https://www.harpercollege.edu/academics/health/surgical-technology/surgical-technology-degree.php)

Program Overview

This 62 credit-hour curriculum prepares the student for a career as a Surgical Technologist. Surgical technologists are integral members of the healthcare team, providing surgical care to patients in a variety of settings such as operating rooms and outpatient surgical centers. They possess expertise in the theory and application of sterile and aseptic techniques to facilitate a physician's performance of invasive therapeutic and diagnostic procedures. The surgical technologist works directly under the supervision of the surgeon during invasive surgical procedures to ensure that the operating room environment is fully prepared with surgical instruments, properly functioning equipment and environmental conditions that maximize patient safety. Students will engage in clinical experiences built upon didactic instruction in healthcare sciences, technological sciences, patient care concepts, and surgical procedures. Because of the nature of clinical experiences, individualized instruction, and specialized technology/equipment, this program assesses a higher tuition rate for courses with the SUR prefix. Students pay 1.5 the regular rate of tuition. Surgical Technology is a limited enrollment program. For admission requirements, please contact the Admissions Outreach Office at 847.925.6700 or visit harpercollege.edu (https://www.harpercollege.edu/). Students who apply for this limited enrollment program are obligated to meet current admission requirements and follow program curriculum as defined at the time of acceptance to the program.

Program Requirements

Prerequisites		Hours
A grade of C or better in all BIO and HSC courses is required.		
BIO 260	Human Anatomy [1]	4
HSC 112	Medical Terminology	2
	Hours	**6**

First Semester		
A grade of C or better is required in all BIO and SUR courses.		
BIO 261	Human Physiology	4
SUR 100	Orientation to the Profession	1
SUR 101	Surgical Pharmacology	2
SUR 102	Fundamentals of Surgical Technology	4
SUR 110	Fundamentals of Sterile Processing	3
SUR 111	Fundamentals/Sterile Processing Laboratory	1
	Hours	**15**

Second Semester		
A grade of C or better is required in all SUR courses.		
ENG 101	Composition I	3
Mathematics [2]		3
SUR 103	Fundamentals/Surgical Technology Laboratory	2
SUR 104	Surgical Procedures I	3
SUR 106	Intermediate Surgical Procedures	3
	Hours	**14**

Summer Session		
A grade of C or better is required in all SUR courses.		
SUR 105	Clinical Applications I	2
	Hours	**2**

Third Semester		
A grade of C or better is required in all SUR courses.		
SPE 101	Fundamentals of Speech Communication	3
SUR 202	Clinical Applications II	5
SUR 211	Complex Surgical Procedures	3
SUR 213	Surgical Procedures IV	3
	Hours	**14**

Fourth Semester		
A grade of C or better is required in all SUR courses.		
AAS General Education elective(s) (p. 60) [+]		3
SUR 214	Advanced Clinical Application	4
SUR 215	Surgical Procedures V	3
SUR 220	Surgical Technology Professional Seminar	1
	Hours	**11**
	Total Hours	**62**

[1] Must be completed no earlier than seven years prior to beginning the Surgical Technology program.

[2] Students using math competency must take a three credit-hour AAS General Education course. See Math Competency options (https://www.harpercollege.edu/testing/docs/math-competency-options.php) for information. See full list of AAS General Education electives (p. 60).

[+] Students must choose a 3 credit-hour course that meets the World Cultures and Diversity graduation requirement. See full list of AAS General Education electives (p. 60).

Sterile Processing and Distribution (Certificate)

Health Science

Program website (https://www.harpercollege.edu/academics/health/sterile-processing/sterile-processing.php)

Program Overview

This 11 credit-hour curriculum prepares the student for a career as a Sterile Processing Technician.

Sterile processing technicians work in the sterile processing area of a hospital, outpatient surgical center or outpatient clinic. The sterile processing area is responsible for the decontamination and sterilization of medical and surgical equipment/instruments as well as the distribution of supplies and equipment. Sterile processing technicians are integral partners of the healthcare team. They are trained in the cleaning, processing, packaging, distributing, storing of goods, instruments, surgical trays and medical equipment. Responsibilities also include inventory control.

This certificate program is designed to be completed in one and a half semesters with each required course taught in an eight-week format. The program provides the student with the fundamentals of sterile processing, supplies, services, and distribution of hospital instruments,

supplies, and equipment. Students will engage in didactic instruction and the clinical practice of aseptic techniques, patient care concepts, and theories and practices of sterile processing departments. Students who successfully complete the program will be eligible to sit for the Certification Board for Sterile Processing and Distribution Certification Examination (CBSPD) or the International Association of Healthcare Sterile Processing Association (HSPA) Provisional Examination.

Because of the nature of the clinical experiences, individualized instruction, and specialized technology/equipment, this program assesses a higher tuition rate for courses with the SUR prefix. Students pay 1.5 the regular rate of tuition.

Program Requirements

A grade of C or better is required in all courses for all students.

Code	Title	Hours
Required		
HSC 112	Medical Terminology	2
SUR 108	Core Concepts in Sterile Processing and Distribution	4
SUR 109	Core Concepts/Sterile Processing/Distribution Lab	2
SUR 113	Clinical Application for Sterile Processing	3
Total Hours		**11**

Code	Title	Hours
Elective for Surgical Technology students who seek dual certification in both Surgical Technology and Sterile Processing		
SUR 114	Surgical Tech Pathway to Sterile Processing Certificate	2

Web Design and Development - Web Design and Interactive Media (AAS)

Art, Design and Performing Arts

Program website (https://www.harpercollege.edu/academics/arts/web-development/web-development-degree.php)

Option 1: Web Design and Development Degree – Web Design and Interactive Media

Program Overview

This 60 credit-hour web curriculum prepares students for various positions in the field of web design and interactive media. Students will learn the technology behind today's Internet and website design protocols by producing professional communications, innovative interactive web solutions, and understanding the technical aspect of interactive web design. Utilizing graphic rich media, web and multimedia design technologies and standards while learning front-end development, this degree path provides solid design and technology skills for an industry relevant experience.

This sequenced degree plan is one of two options that students may pursue to earn the Web Design and Development Associate in Applied Science (AAS) degree. While there are multiple specializations, this particular degree can be awarded only once.

Program Requirements

First Semester		Hours
ENG 101	Composition I	3
GRA 101	Introduction to Graphic Arts Technology	3
GRA 103	Digital Imaging I	3
MTH 103	College Algebra [1]	3
WEB 110	Internet Fundamentals	3
	Hours	**15**

Second Semester		Hours
AAS General Education elective(s) (p. 60) [+]		3

ENG 102
  or SPE 101
	Composition II
	  or Fundamentals of Speech Communication
		3

GRA 145	Wordpress and Mobile Technologies	3
WEB 150	Web Foundations	3
WEB 170	Web UX Fundamentals and Prototyping	3
	Hours	**15**

Third Semester		Hours
AAS General Education elective(s) (p. 60) [+]		3
WEB 180	Web Multimedia	3
WEB 190	Web Authoring Tools	3
WEB 200	Web Scripting Foundations	3
WEB 240	E-Commerce Strategies and Technologies	3
	Hours	**15**

Fourth Semester		Hours
Elective(s) (p. 155)		3

MKT 180	Strategic Communication for a Digital World	3
WEB 210	Web Accessibility	3
WEB 235	Interactive Scripting	3
WEB 299	Web Design Capstone	3
	Hours	**15**
	Total Hours	**60**

[1] If a student places higher than MTH 103, they need to take a 3 credit-hour AAS General Education elective. See full list of AAS General Education Electives (p. 60).

[+] ART 110 or ART 121 are recommended. At least one of the AAS General Education electives must meet the World Cultures and Diversity graduation requirement. See full list of AAS General Education Electives (p. 60).

Electives

Code	Title	Hours
CIS 106	Computer Logic and Programming Technology	3
CIS 206	Applied Programming	4
CIS 216	Applied Object-Oriented Programming	4
CSC 214	Java Programming	4
GRA 102	Graphic Arts Desktop Publishing	3
GRA 112	Digital Illustration I	3
MKT 180	Strategic Communication for a Digital World	3
WEB 140	Mobile Apps	3
WEB 180	Web Multimedia	3
WEB 250	Server-Side Scripting	3
WEB 285	Topics in Web Development	1-6
WEB 299	Web Design Capstone	3

Web Design and Development - Web Development (AAS)

Art, Design and Performing Arts

Program website (https://www.harpercollege.edu/academics/arts/web-development/web-development-degree.php)

Option 2: Web Design and Development Degree – Web Development

Program Overview

This 61 credit-hour technical curriculum prepares students for various positions in the field of web development. Students will learn the technology behind today's Internet and website development protocols by producing professional web solutions and understanding the technical aspect of website development. Utilizing front-end design and back-end practices and programming, this degree path provides solid technology skills for an industry relevant experience.

This sequenced degree plan is one of two options that students may pursue to earn the Web Design and Development Associate in Applied Science (AAS) degree. While there are multiple specializations, this particular degree can be awarded only once.

Program Requirements

First Semester		Hours
CIS 106	Computer Logic and Programming Technology	3
ENG 101	Composition I	3
GRA 101	Introduction to Graphic Arts Technology	3
MTH 103	College Algebra [1]	3
WEB 110	Internet Fundamentals	3
	Hours	**15**
Second Semester		
AAS General Education elective(s) (p. 60) [+]		3
CIS 143	Introduction to Database Systems	3
ENG 102 or SPE 101	Composition II or Fundamentals of Speech Communication	3
GRA 145	Wordpress and Mobile Technologies	3
WEB 150	Web Foundations	3
	Hours	**15**
Third Semester		
AAS General Education elective(s) (p. 60) [+]		3
WEB 170	Web UX Fundamentals and Prototyping	3
WEB 190	Web Authoring Tools	3
WEB 200	Web Scripting Foundations	3
WEB 240	E-Commerce Strategies and Technologies	3
	Hours	**15**
Fourth Semester		
CSC 121	Computer Science I	4
Elective(s) (p. 156)		3
WEB 210	Web Accessibility	3
WEB 235	Interactive Scripting	3
WEB 250	Server-Side Scripting	3
	Hours	**16**
	Total Hours	**61**

[1] If a student places higher than MTH 103, they need to take a 3 credit-hour AAS General Education elective. MTH 103 is required for CSC 121. See full list of AAS General Education Electives (p. 60).

[+] At least one of the AAS General Education electives must meet the World Cultures and Diversity graduation requirement. See full list of AAS General Education Electives (p. 60).

Electives

Code	Title	Hours
CIS 106	Computer Logic and Programming Technology	3
CIS 206	Applied Programming	4
CIS 216	Applied Object-Oriented Programming	4
CSC 214	Java Programming	4
GRA 102	Graphic Arts Desktop Publishing	3
GRA 112	Digital Illustration I	3
MKT 180	Strategic Communication for a Digital World	3
WEB 140	Mobile Apps	3
WEB 180	Web Multimedia	3
WEB 250	Server-Side Scripting	3

WEB 285	Topics in Web Development	1-6
WEB 299	Web Design Capstone	3

Mobile App Foundations (Certificate)

Art, Design and Performing Arts

Program website (https://www.harpercollege.edu/academics/arts/web-development/mobile-app-certificate.php)

Program Overview

This 30 credit-hour certificate program provides a background in mobile app foundations. Individuals seeking entry-level positions in this field will learn technology behind today's mobile app protocols by developing professional mobile apps. This program will also be useful to individuals whose job scope has expanded to include mobile technology responsibilities.

Program Requirements

Code	Title	Hours
CIS 106	Computer Logic and Programming Technology [1]	3
CIS 143	Introduction to Database Systems	3
CIS 211	IT Project Management	3
GRA 145	Wordpress and Mobile Technologies [2]	3
MKT 243	Social Commerce and Sales	3
WEB 110	Internet Fundamentals	3
WEB 140	Mobile Apps	3
WEB 150	Web Foundations	3
WEB 170	Web UX Fundamentals and Prototyping	3
WEB 210	Web Accessibility	3
Total Hours		**30**

[1] This course requires math placement in MTH 101 or higher. https://www.harpercollege.edu/testing/mathplacement.php

[2] This course has a prerequisite of GRA 101 or WEB 110 or WEB 150 with a grade of C or better. For this certificate, students must take WEB 110 or WEB 150.

Web Design and Interactive Media (Certificate)

Art, Design and Performing Arts

Program website (https://www.harpercollege.edu/academics/arts/web-development/web-design-interactive-media-certificate.php)

Program Overview

This 27 credit-hour certificate program provides a background in web design and interactive media. Individuals seeking entry-level positions in this field will learn technology behind today's Internet and website design protocols by producing professional communications, innovative interactive web solutions, and understanding the technical aspect of interactive web design. This program will also be useful to individuals whose job scope has expanded to include web site responsibilities.

Program Requirements

Code	Title	Hours
Required		
GRA 145	Wordpress and Mobile Technologies	3
WEB 110	Internet Fundamentals	3
WEB 150	Web Foundations	3
WEB 170	Web UX Fundamentals and Prototyping	3
WEB 180	Web Multimedia	3
WEB 200	Web Scripting Foundations [1]	3
WEB 210	Web Accessibility	3
WEB 235	Interactive Scripting	3
or WEB 240	E-Commerce Strategies and Technologies	
WEB Elective [2]		3
Total Hours		**27**

[1] This course requires math placement in MTH 101 or higher. See the math placement grid (https://www.harpercollege.edu/testing/mathplacement.php) for more information.

[2] Elective: WEB 140, WEB 190 (F), WEB 299

Web Development (Certificate)

Art, Design and Performing Arts

Program website (https://www.harpercollege.edu/academics/arts/web-development/web-development-certificate.php)

Program Overview

This 27 credit-hour certificate program provides a background in web development with emphasis on scripting and programming techniques. Individuals seeking entry-level positions in the field of web development and maintenance will find these skills helpful. This program will also be useful to individuals whose job scope has expanded to include web site responsibilities.

Program Requirements

Code	Title	Hours
Required		
CIS 143	Introduction to Database Systems [1]	3
GRA 145	Wordpress and Mobile Technologies	3
WEB 110	Internet Fundamentals	3
WEB 150	Web Foundations	3
WEB 200	Web Scripting Foundations [2]	3
WEB 210	Web Accessibility	3
WEB 235	Interactive Scripting	3
WEB 240	E-Commerce Strategies and Technologies	3
WEB 250	Server-Side Scripting	3
Total Hours		**27**

[1] This course requires WEB 110 with a grade of C or better and math placement in MTH 101 or higher. See the math placement grid (https://www.harpercollege.edu/testing/mathplacement.php) for more information.

[2] This course requires math placement in MTH 101 or higher. See the math placement grid (https://www.harpercollege.edu/testing/mathplacement.php) for more information.

Welding Technology (AAS)

Manufacturing and Construction

Program website (https://www.harpercollege.edu/academics/manufacturing/welding/welding-technology-degree.php)

Program Overview

This 60 credit-hour program prepares students for employment in the high demand welding and fabrication sector of the economy. Graduates may find employment as welders, fabricators and welder supervisors in the manufacturing and construction industries.

Program Requirements

All WLD courses are offered in an 8-week scheduling format.

First Semester		Hours
ENG 101	Composition I	3
MFT 134	Print Reading for Industry	3
MTH 100	Applied Math for Technical Careers [1]	3
WLD 110	Welding I	3
WLD 210	Welding II	3
	Hours	**15**
Second Semester		
AAS General Education elective(s) (p. 60) [+]		6
WLD 211	Welding III	4
WLD 212	Welding IV	4
WLD 225	Advanced Blueprint Reading	2
	Hours	**16**
Third Semester		
Technical Elective(s) (p. 158)		6
WLD 240	Cutting Processes	3
WLD 249	Applied Welding Theory	3
WLD 253	Welding Power Sources	3
	Hours	**15**
Fourth Semester		
AAS General Education elective(s) (p. 60) [+]		3
Technical Elective(s) (p. 158)		3
WLD 245	Welding Fabrication I	4
WLD 250	Welding Fabrication II	4
	Hours	**14**
	Total Hours	**60**

[1] Students may take MTH 100, MTH 101, MTH 103 or higher.

[+] At least one of the AAS General Education electives must meet the World Cultures and Diversity graduation requirement. See full list of AAS General Education Electives (p. 60).

Technical Electives

Code	Title	Hours
MFT 105	Machining Processes I	3
MFT 120	Machining Processes II	3
WLD 246	Pre-Pipe Welding	4
WLD 248	Basic Pipe Welding	4
WLD 260	Arc Welder Qualification	4
WLD 261	Mig Welder Qualification	4
WLD 285	Topics in Welding Technology	1-6

Advanced Welding (Certificate)

Manufacturing and Construction

Program website (https://www.harpercollege.edu/academics/manufacturing/welding/advanced-welding-certificate.php)

Program Overview

This 32 credit-hour certificate program is designed to give students advanced knowledge and skills in welding. The program of study will emphasize advanced welding theory, and practical application of the major forms of welding. Students will learn to interpret welding blueprints and develop the skills necessary to pass welder qualification tests. Students will meet AWS SENSE (School Excelling through National Skill Standards Education) training standards for certification as an AWS Level II Advanced Welder.

All WLD courses are offered in an 8-week scheduling format.

Program Requirements

Code	Title	Hours
Required		
MFT 134	Print Reading for Industry	3
MTH 100	Applied Math for Technical Careers [1]	3
WLD 110	Welding I	3
WLD 210	Welding II	3
WLD 211	Welding III	4
WLD 212	Welding IV	4
WLD 225	Advanced Blueprint Reading	2
WLD 249	Applied Welding Theory	3
WLD 253	Welding Power Sources	3
WLD 260	Arc Welder Qualification	4
or WLD 261	Mig Welder Qualification	
Total Hours		**32**

[1] MTH 100, MTH 101, MTH 103 or higher.

Basic Pipe Welding (Certificate)

Manufacturing and Construction

Program website (https://www.harpercollege.edu/academics/manufacturing/welding/basic-pipe-welding-certificate.php)

Program Overview

This 17 credit-hour certificate program is designed to give students entry-level skills in basic pipe welding. The program of study will emphasize extensive practice in the major arc welding process, and out-of-position and multi-pass arc welding including GMAW, SMAW and GTAW. Students will work from blueprints and develop the welding skills necessary to perform SMAW pipe welding with E6010 and E7018 electrodes in all positions.

All WLD courses are offered in an 8-week scheduling format.

Program Requirements

Code	Title	Hours
Required		
MFT 134	Print Reading for Industry	3
WLD 110	Welding I	3
WLD 210	Welding II	3
WLD 246	Pre-Pipe Welding	4
WLD 248	Basic Pipe Welding	4
Total Hours		**17**

Basic Welding (Certificate)

Manufacturing and Construction

Program website (https://www.harpercollege.edu/academics/manufacturing/welding/basic-welding-certificate.php)

Program Overview

This 17 credit-hour certificate program is designed to give students entry-level skills in welding. The program of study will emphasize welding safety, extensive practice in the major arc welding process, and out-of-position and multi-pass arc welding including GMAW, SMAW, and GTAW. Students will work with mild steel, stainless steel and aluminum. Students will work on the welding skills necessary to pass welder qualification tests. Students will meet the AWS (American Welding Society) SENSE (Schools Excelling through National Skill Standards Education) training standards for certification in AWS Level 1 - Entry Welder.

All WLD courses are offered in an 8-week scheduling format.

Program Requirements

Code	Title	Hours
Required		
MFT 134	Print Reading for Industry	3
WLD 110	Welding I	3
WLD 210	Welding II	3
WLD 211	Welding III	4
WLD 212	Welding IV	4
Total Hours		**17**

Welding Fabrication (Certificate)

Manufacturing and Construction

Program website (https://www.harpercollege.edu/academics/manufacturing/welding/welding-fabrication-certificate.php)

Program Overview

This 33 credit-hour certificate program is designed to give students entry-level skills in welding fabrication. The program of study will emphasize advanced welding theory, extensive practice in the major arc welding process, and out-of-position and multi-pass arc welding including GMAW, SMAW and GTAW. Students will work from blueprints and develop the welding skills necessary to construct quality fabricated metal weldments.

Program Requirements

Code	Title	Hours
Required		
MFT 134	Print Reading for Industry	3
MTH 100	Applied Math for Technical Careers [1]	3
WLD 110	Welding I	3
WLD 210	Welding II	3
WLD 211	Welding III	4
WLD 212	Welding IV	4
WLD 225	Advanced Blueprint Reading	2
WLD 240	Cutting Processes	3
WLD 245	Welding Fabrication I	4
WLD 250	Welding Fabrication II	4
Total Hours		**33**

[1] Students may take MTH 100, MTH 101, MTH 103 or higher.

Accounting (ACC)

ACC 100 - Introductory Accounting (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides students with a foundation in fundamental accounting procedures using the accounting cycle for both service and merchandising businesses including adjustments, preparation of financial statements and closing procedures. Includes reconciliation of bank statements, petty cash and examination of fraud and internal controls. This non-transfer course is intended for those students planning to take only one semester of accounting or for those who need preparation before enrolling in ACC 101.
Typically offered: Fall

ACC 101 - Introduction to Financial Accounting (4 Credits)
4 lecture, 4 total contact hours
Presents accounting as an information system that produces summary financial statements primarily for users external to a business. Emphasizes the reporting of the effect of transactions and other economic events on the financial condition and operating results of a business. Topics include basic accounting concepts, financial statements, accrual and cash basis, the accounting cycle, monetary assets, inventories, fixed assets, current and long-term liabilities and owner's equity. The course assumes a corporate form of organization. Note: High school algebra is recommended. IAI BUS 903
Typically offered: Fall, Spring, Summer

ACC 102 - Introduction to Managerial Accounting (3 Credits)
3 lecture, 3 total contact hours
Presents accounting as a system of producing information for internal management use in a business. Emphasis is on the identification, accumulation and interpretation of information for planning, controlling and evaluating the performance of the separate components of a business. Topics include: theory and application of product costing, operational control, cost allocation, performance evaluation for manufacturing and service organizations, standard costing, job order and process costing, budgeting, JIT inventory control, decentralized operations, differential analysis, capital investment analysis and financial statement analysis. IAI BUS 904 Prerequisite: ACC 101 (Introduction to Financial Accounting IAI 903) with a grade of C or better.
Typically offered: Fall, Spring, Summer

ACC 112 - Quickbooks (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Provides students with applications of QuickBooks. Students apply accounting principles and manage accounting recored like those used in small businesses. Prerequisite: Prior or concurrent enrollment in ACC 100 or ACC 101.
Typically offered: Fall, Spring, Summer

ACC 155 - Payroll Accounting (2 Credits)
2 lecture, 2 total contact hours
Explains the preparation of payroll records including tax returns for old age benefits and employment insurance. Prerequisite: ACC 100 or ACC 101.
Typically offered: Fall, Spring, Summer

ACC 201 - Intermediate Accounting I (3 Credits)
3 lecture, 3 total contact hours
Presents accounting and reporting process, accounting theory, inventories, tangibles and intangible fixed assets. This is a problem solving course that continues accounting principles begun in ACC 101 and ACC 102. Prerequisite: ACC 102 with a grade of C or better.
Typically offered: Fall, Spring

ACC 202 - Intermediate Accounting II (3 Credits)
3 lecture, 3 total contact hours
Presents course materials in the following sequences: Accounting for corporations, including capital stock, retained earnings, bonds payable, income statement and balance sheet analysis, pensions and leases, fund flow analysis, consignments and installment sales. Prerequisite: ACC 201 with a grade of C or better.
Typically offered: Spring

ACC 203 - Cost Accounting (3 Credits)
3 lecture, 3 total contact hours
Includes an examination of the nature of costs and the use of relevant accounting data for purposes of improved decision making. Topics covered are product costs (process, job order and standard), overhead variance, by-product costs, joint-product cost and direct and variable costing. Prerequisite: ACC 102 with a grade of C or better.
Typically offered: Fall

ACC 211 - Business Law I (3 Credits)
3 lecture, 3 total contact hours
Presents the history of the source of law, civil and criminal wrongs, law of contracts, agency, employment, property and related topics. Problems and case materials are used. (NOTE: Transfer students should check with the school they will be transferring to regarding the transferability of this course.)
Typically offered: Fall, Spring

ACC 213 - Legal Environment of Business (3 Credits)
3 lecture, 3 total contact hours
Introduces the student to the nature, function and application of law in the commercial context. Emphasizes the regulation of business by statutes, administrative regulations and court decisions. IAI BUS 913
Typically offered: Fall, Spring

ACC 216 - Employment Law (3 Credits)
3 lecture, 3 total contact hours
Examines past and present employment laws in the United States and their impact on employers and employees. Creates an understanding of the rights, duties and obligation of both employment groups under the law.
Typically offered: Fall

ACC 250 - Individual Tax Accounting (3 Credits)
3 lecture, 3 total contact hours
Offers a practical study of current federal and Illinois taxes as they relate to individual income tax procedures. Topics studied include income inclusions and exclusions, capital gains and losses, business and personal deductions, and accounting methods. Prerequisite: ACC 101 with a grade of C or better.
Typically offered: Fall, Spring

ACC 251 - Business Tax Accounting (3 Credits)
3 lecture, 3 total contact hours
Presents the basic concepts of corporation income taxation, partnerships, estates and trusts. The course includes a study of the taxation on the transfer of wealth, both during lifetime and testamentary. Prerequisite: ACC 101 with a grade of C or better.
Typically offered: Spring, Summer

ACC 253 - Advanced Accounting I (3 Credits)
3 lecture, 3 total contact hours
Studies municipal accounts, business combinations and the preparation of consolidated financial statements. Topics will include branches, consolidated statements, elimination of inter-company transactions, general funds and nonprofit service organizations. Prerequisite: ACC 202 with a grade of C or better.
Typically offered: Fall

ACC 254 - Auditing (3 Credits)
3 lecture, 3 total contact hours
Examines the auditory theory and procedures involving the topical areas of audit reporting, auditing standards and evidence, statistical sampling and electronic data processing. The legal and ethical dimensions of auditing will also be studied with emphasis on how government affects financial reporting through court decisions, federal securities laws, the S.E.C. and the Foreign Corrupt Practice Act. Prerequisite: ACC 102 with a grade of C or better.
Typically offered: Fall

ACC 257 - Ethics and Tax Practices (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Analyzes income tax issues that relate to the requirements of individuals who have the legal right to prepare tax returns on behalf of individuals, business entities, and estates and trusts. These requirements include ethical conduct, practice privileges, and assessment and appeal procedures that must be followed in representing clients before the IRS and other tax agencies.
Typically offered: Spring

ACC 260 - Financial Research (1 Credit)
1 lecture, 1 total contact hours
Presents basic techniques of conducting financial accounting research using professional accounting databases. Students will develop skills necessary to research and interpret financial accounting standard guidelines using accounting related cases. Students will communicate thier research in a professional business format. Recommended prereqisite: ACC 201 or equivalent experience.
Typically offered: Summer

ACC 261 - Tax Research (1 Credit)
1 lecture, 1 total contact hours
Presents basic techniques of conducting federal tax research using authoritative databases. Students will develop skills necessary and interpret tax case guidelines using tax cases. Students will communicate their research results in a professional business format. Recommended prerequisite: ACC 250 or equivalent experience.
Typically offered: Summer

ACC 265 - Fraud Examination (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Presents the fundamentals of fraud examination and forensic accounting for the workplace. Students will discover how and why fraud occurs in organization, develop skills to detect fraud, and be able to identify and classify various types of fraud. This course will emphasize the importance of corporate social responsibility in an organzation and the need for reporting systems that focus on integrity and accountability. Prerequisite: ACC 102 with a grade of C or better.
Typically offered: Summer

ACC 280 - CPA Review Course/Business Environmental Concepts (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Provides the student with the tools necessary to understand, review, and practice for the Business Environmental Concepts (BEC) section of the CPA Exam. A general understanding of the topics listed in outline would constitute a minimum requirement.
Typically offered: Fall

ACC 281 - CPA Review Course/Audit and Attestation (AUD) (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Provides the student with the tools necessary to understand, review, and practice for the Audit and Attestation (AUD) section of the CPA Exam. A general understanding of the topics listed in outline would constitute a minimum requirement.
Typically offered: Fall

ACC 282 - CPA Review Course/Financial Accounting and Reporting (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Provides the student with the tools necessary to understand, review, and practice for the Financial Accounting and Reporting (FAR) section of the CPA Exam. A general understanding of the topics listed in outline would constitute a minimum requirement.
Typically offered: Spring

ACC 283 - CPA Review Course/Regulation (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Provides the student with the tools necessary to understand, review, and practice for the Regulation (REG) section of the CPA Exam. A general understanding of the topics listed in outline would constitute a minimum requirement.
Typically offered: Spring

ACC 295 - Topics in Accounting (1-4 Credits)
1 - 4 lecture, 1 - 4 total contact hours
Provides seminars and courses on varying topics that are current and relevant to accounting students and business professionals. This course may be taken a total of four (4) times for a total of 4 credit hours. Prerequisites will vary according to the topic.

Anthropology (ANT)

ANT 101 - Introduction to Anthropology (3 Credits)
3 lecture, 3 total contact hours
Addresses such central questions as 'What does it mean to be human?" and "How did we get to be the way we are?" Among the topics to be examined will be human, physical and cultural evolution, the origin of culture, language, religion, kinship, economics and the impact of contemporary life on the world's populations. IAI S1 900N
World Culture and Diversity
Typically offered: Fall, Spring, Summer

ANT 202 - Cultural Anthropology (3 Credits)
3 lecture, 3 total contact hours
Describes and analyzes how people throughout the world define and resolve the problems of life that are found everywhere. Some of the specific topics studied will be religion, social structure, law, "the unknown," economics and the formation of behavior within particular groups. IAI S1 901N
World Culture and Diversity
Typically offered: Fall, Spring, Summer

ANT 205 - Physical Anthropology (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Studies the origins and evolution of humans as physical and cultural beings. Includes origin, history and behavior of primates, fossil records and the principles of population genetics and their application to study of human variation. IAI S1 902
Typically offered: Spring

ANT 206 - Archeology (3 Credits)
3 lecture, 3 total contact hours
Surveys archeological concepts, research and methods for the study of prehistoric cultures. Includes rise and development of modern civilization, land and land use, agriculture, current archeological investigations, interpretations of finds and introduction to field work techniques. IAI S1 903
World Culture and Diversity
Typically offered: Fall

ANT 215 - Introduction to Forensic Anthropology (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Studies the field dealing with human skeletal remains resulting from unexplained deaths. Both osteology (bones) and odontology (teeth) will be investigated. Students will learn the techniques involved including: basic human skeletal analysis, preliminary examination methods, burial aspects, distinguishing human from animal remains, identifying the sex of an individual, estimating the age of death, calculating stature, trauma analysis of different types (e.g., blunt, sharp, projectile), as well as various related topics. (NOTE: Although skeletal lab materials will be provided, no soft tissue will be examined.)
Typically offered: Spring

ANT 220 - Topics in Anthropology (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Studies selected problems or topics in social science. The exact content and instructional methodology will vary from semester to semester depending on the material to be studied. A syllabus or course outline containing additional information will be available with pre-registration materials each time that the course is offered. This course may be repeated two times to a maximum of six credit hours.
Typically offered: Fall

Architecture (ARC)

ARC 105 - Presentation and Communication Tools (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Introduces various communication and presentation tools commonly used throughout the field of architecture. Covers the fundamentals of industry-wide CAD software; computer presentation techniques using various software titles; and three-dimensional building models, materials and techniques.
Typically offered: Spring

ARC 106 - Introduction to Architecture (3 Credits)
1 lecture, 5 lab, 6 total contact hours
Introduces the profession of architecture as well as the technical procedures for creating typical drawing types. Covers the role of the architect and other professionals within the AEC industry as well as architectural education. Manual drafting techniques are used to create standard drawings including plans, sections, elevations and perspectives. Design development-level drawings are based on framed residential and light commercial building types.
Typically offered: Fall

ARC 110 - Architectural Design Principles (4 Credits)
2 lecture, 6 lab, 8 total contact hours
Develops methods and strategies to apply design principles to fundamental architectural problems. Employment of 2- and 3-dimensional exercises to explore concepts of mass, space and structure as well as principles such as proportion, rhythm, scale, symmetry and procession. Exercises will be designed to promote an understanding of the process of concept formation and application. Prerequisite: ARC 106 with a grade of C or better, or consent of instructor.
Typically offered: Spring

ARC 113 - Building Materials I (4 Credits)
3 lecture, 3 lab, 6 total contact hours
Introduces masonry, wood and non-fireproofed steel construction for one- and two-story buildings. Manual drafting techniques are used to create concrete foundation and footing details, wall and building sections as well as construction details.
Typically offered: Fall

ARC 116 - Architectural CAD I (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Introduces computer hardware and state-of-the-art software as applied to applications in architecture, interior design and other related fields. Develops understanding of basic parameters for design and drafting technologies: entity creating and editing, printing and plotting, and file/data management. Projects are correlated primarily to architectural design issues.
Typically offered: Fall, Spring, Summer

ARC 117 - Architectural CAD II (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Covers advanced CAD techniques and procedures developed in two-dimensional architectural drafting and detailing. Develops a working knowledge and understanding of command structures, detailed data management and manipulation techniques, and software customization procedures. Projects are correlated primarily to architectural construction, drafting and detailing issues. (formerly ATE 106) Prerequisite: ARC 116 with a grade of C or better, or consent of instructor.
Typically offered: Fall, Spring, Summer

ARC 125 - Chicago's Architectural History (3 Credits)
3 lecture, 3 total contact hours
Introduces an historical survey of culture and technology impact on Chicago's architecture. Emphasizes ideas and trends in modern building originating with the balloon frame and continuing through to the skyscraper.
Typically offered: Spring

ARC 201 - Architectural Design Studio I (4 Credits)
2 lecture, 6 lab, 8 total contact hours
Applies and advances design principles and processes gained in ARC 110. Studio projects representing practical architectural problems are assigned. These incorporate multiple issues and principles as well as site, user and context parameters. Project solutions will be documented with accurate drawings and possibly models. Prerequisite: ARC 110 with a grade of C or better, or consent of instructor.

ARC 202 - Architectural Design Studio II (4 Credits)
2 lecture, 6 lab, 8 total contact hours
Applies and advances design principles and processes gained in ARC 201. Studio projects representing advanced architectural problems are assigned. These incorporate multiple issues and principles as well as site, user and context parameters. Project solutions will be documented with accurate drawings and models. Prerequisite: ARC 201 with a grade of C or better, or consent of instructor.

ARC 213 - Building Materials II (4 Credits)
2 lecture, 4 lab, 6 total contact hours
Develops construction strategies of multi-storied steel and concrete commercial and residential buildings. Covers stairs, elevators and toilet room layouts. Reviews fire-resistive construction technologies, window walls, ceiling grids, lighting, partition details, mechanical and electrical requirements. Prerequisite: ARC 113 with a grade of C or better, or consent of instructor.

ARC 223 - History of Architecture (3 Credits)
3 lecture, 3 total contact hours
Surveys architecture from prehistoric times through the Renaissance, including Western and non-Western cultures. Stylistic and technological developments of architecture are studied in relationship to the cultural diversity of social, political, and religious contexts and historical periods.

Art (ART)

ART 100 - Art Seminar (1 Credit)
1 lecture, 1 total contact hours
Introduces art majors to the opportunities, concerns and the problems that relate to the artist. This course may be repeated up to two hours of credit.
Typically offered: Fall, Spring, Summer

ART 105 - Introduction to Visual Art (3 Credits)
3 lecture, 3 total contact hours
Introduces the visual arts with an emphasis on creating awareness of aesthetics, artistic concepts, media, theory and criticism. In addition, students will develop a critical understanding of art and build visual literacy. IAI F2 900
Typically offered: Fall, Spring, Summer

ART 110 - Drawing I (3 Credits)
0 lecture, 6 lab, 6 total contact hours
Introduces students to descriptive and expressive approaches to drawing with black and white media. Line work, shading, perspective and experimental techniques are practiced. Students learn to accurately depict everyday objects and surroundings, and develop an awareness of drawing as a creative process. IAI ART 904
Typically offered: Fall, Spring, Summer

ART 111 - Drawing II (3 Credits)
0 lecture, 6 lab, 6 total contact hours
Builds on the content of ART 110 (Drawing I) with applications beyond observation-based approaches. Emphasizes intent, idea development and use of colored media. Prerequisite: ART 110 with a grade of C or better, or consent of instructor. IAI ART 905
Typically offered: Fall, Spring

ART 114 - Introduction to Film (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Examines the different ways of looking at film to improve understanding and appreciation of the medium as an art form. Includes critical analysis of different directors, film genres, historical trends and lecture about technique and process filmmaking. Between 10 and 15 films will be examined. IAI F2 908
Typically offered: Fall, Spring, Summer

ART 121 - Design I (3 Credits)
0 lecture, 6 lab, 6 total contact hours
Introduces students to skills fundamental to two-dimensional visual organization. Explores elements such as line, shape and color, and principles such as unity, balance and variation. Provides a foundation for all areas of art and design. IAI ART 907
Start Smart
Typically offered: Fall, Spring, Summer

ART 122 - Design II (3 Credits)
0 lecture, 6 lab, 6 total contact hours
Introduces students to skills fundamental to three-dimensional visual organization. Explores elements such as form, space, and process and principles such as unity, balance and variation. Provides a foundation for all areas of three-dimensional art and design. IAI ART 908 Prerequisite: ART 121 with a grade of C or better, or consent of instructor.
Typically offered: Fall, Spring

ART 130 - Ancient and Medieval Art (3 Credits)
3 lecture, 3 total contact hours
Follows the historical development of the visual arts produced by Western civilizations, focusing on major artistic styles, works of art and monuments. Works are examined as examples of the ideas, beliefs and practices of artists, cultures and societies. Covers the history of art from pre-history to the medieval age. IAI F2 901
Typically offered: Fall, Spring, Summer

ART 131 - Gothic through Romantic Art (3 Credits)
3 lecture, 3 total contact hours
Follows the historical development of the visual arts produced by Western civilizations, focusing on major artistic styles, works of art and monuments. Works are examined as examples of the ideas, beliefs and practices of artists, cultures and societies. Covers the history of art from the medieval age to the end of the eighteenth century. IAI F2 902
Typically offered: Fall, Spring, Summer

ART 132 - Modern and Contemporary Art (3 Credits)
3 lecture, 3 total contact hours
Follows the historical development of the visual arts produced by Western civilizations, focusing on major artistic styles, works of art and monuments. Works are examined as examples of the ideas, beliefs and practices of artists, cultures and societies. Covers the history of art from the nineteenth century to the present time. IAI F2 902
Typically offered: Fall, Spring

ART 133 - Non-Western Art (3 Credits)
3 lecture, 3 total contact hours
Follows the historical development of the visual arts produced by non-western civilizations, focusing on major artistic styles, works of art and monuments. Works are examined as examples of the ideas, beliefs and practices of artists, cultures and societies. Covers the history of art of Africa, China, India, Japan, Middle East, Oceania and the Americas. IAI F2 903N
World Culture and Diversity
Typically offered: Fall, Spring

ART 206 - Printmaking Studio (3 Credits)
0 lecture, 6 lab, 6 total contact hours
Introduces techniques such as lithography, relief, intaglio and screen-printing. Fosters the development of studio practices and encourages critical awareness. Presents historical and contemporary approaches to the medium. May be repeated up to six hours of credit. Prerequisite: ART 110 or ART 121 with a grade of C or better, or consent of instructor.
Typically offered: Fall, Spring

ART 225 - Figure Drawing Studio (3 Credits)
0 lecture, 6 lab, 6 total contact hours
Introduces students to descriptive and expressive approaches to drawing the human figure with an emphasis on anatomy, proportion, contour, gesture and volume. These concepts and techniques are practiced primarily through direct observation of live, nude models using black and white media. May be repeated up to six credit hours. Prerequisite: ART 110 with a grade of C or better, or consent of instructor.
Typically offered: Fall, Spring

ART 241 - Digital Art and Animation Studio (3 Credits)
0 lecture, 6 lab, 6 total contact hours
Presents an introduction to a digital-based multimedia approach to making art, animation and digital drawings/illustrations. Computer hardware, software, mobile audio video devices and web-based applications are employed to capture design and produce presentation quality digital drawings/illustrations, animations, motion, web and print graphics. (Formerly: ART 150)
Typically offered: Fall, Spring, Summer

ART 250 - Introduction to Photographic Art (3 Credits)
0 lecture, 6 lab, 6 total contact hours
Employs digital technology as a medium for producing works of photographic art. Basic techniques and processes for using a digital still camera, image editing software and archival print technology are used to investigate straight photography as well as high manipulated images. May be repeated for up to six hours of credit. Limited free camera loans available for duration of the course; contact the instructor for more information.
Typically offered: Fall, Spring, Summer

ART 251 - Intermediate Photographic Art (3 Credits)
0 lecture, 6 lab, 6 total contact hours
Moving beyond basic tools and techniques for generating digital photographic artworks, students explore varied digital image workflow strategies, studio photography and lighting, and emerging photographic technologies, such as drone aerial photography, video, and camera phones. Artwork output and presentation tactics are stressed. May be repeated for up to six hours of credit. Limited free camera loans and misc. photo equipment available for duration of the course; contact the instructor for more information. Although not a requirement, students interested in an introduction to photography are recommended to begin with ART 250 Introduction to Photographic Art.
Typically offered: Fall, Spring

ART 261 - Painting Studio (3 Credits)
0 lecture, 6 lab, 6 total contact hours
Introduces painting techniques and media, fosters the development of studio practices, and encourages critical awareness. Presents historical and contemporary approaches to the medium. May be repeated up to six hours of credit. Prerequisite: ART 110 or ART 121 with a grade of C or better, or consent of instructor.
Typically offered: Spring

ART 280 - Topics in Art History (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Studies selected topics or debates in art history. The exact content and instructional methodology will vary semester to semester depending on the material studied. A syllabus or course outline containing additional information will be available with pre-registration materials each time that the course is offered. This course may be repeated two times to a maximum of six credit hours.
Typically offered: Fall, Spring, Summer

ART 281 - Topics in Studio Art (3 Credits)
0 lecture, 6 lab, 6 total contact hours
Explores selected practices in studio art. The exact content and instructional methodology will vary semester to semester depending on the material covered. A syllabus or course outline containing additional information will be available with pre-registration materials each time that the course is offered. This course may be repeated up to a maximum of six credit hours. Prerequisite: ART 111 and ART 122 with grades of C or better, or consent of instructor.
Typically offered: Fall, Spring, Summer

ART 291 - Ceramics Studio (3 Credits)
0 lecture, 6 lab, 6 total contact hours
Introduces hand-building and wheel-throwing techniques, as well as glazing and firing processes. Fosters the development of studio practices and encourages critical awareness. Presents historical and contemporary approaches to the medium. May be repeated up to six hours of credit.
Typically offered: Fall, Spring, Summer

ART 296 - Sculpture Studio (3 Credits)
0 lecture, 6 lab, 6 total contact hours
Introduces sculpture techniques, three-dimensional forms and media. Fosters the development of studio practices and encourages cirtical awareness. Presents historical and contemporary approaches to the medium. May be repeated up to six hours of credit. Prerequisite: ART 110 or ART 121 with a grade of C or better, or consent of instructor.
Typically offered: Spring

Astronomy (AST)

AST 100 - Astronomy Survey (3 Credits)
3 lecture, 3 total contact hours
Introduces the main concepts of contemporary astronomy using a scientific approach. Topics include the scientific method, the celestial sphere, celestial motions, gravity, light, telescopes, the solar system, stars, the interstellar medium, galaxies and cosmology. Current research in the different areas will be discussed. Knowledge of high school algebra is assumed. IAI P1 906
Typically offered: Fall, Spring, Summer

AST 112 - The Solar System (4 Credits)
3 lecture, 2 lab, 5 total contact hours
Introduces the main concepts of solar system astronomy. Topics include the fundamentals of astronomy, planetary motion, the Earth, the Moon, terrestrial planets, Jovian planets, small bodies in the solar system, the Sun, the formation of the solar system, other planetary systems, and the possibility of extraterrestrial life. Current research in the different areas will be discussed. Knowledge of high school algebra is assumed. IAI P1 906L
Typically offered: Fall, Spring

AST 115 - Stars and Galaxies (4 Credits)
3 lecture, 2 lab, 5 total contact hours
Introduces the main concepts of stellar, galactic, and extra-galactic astronomy. Topics include life cycles of stars, supernovae, black holes, interstellar medium, structure of the Milky Way galaxy, galaxy classification, galaxy interactions, dark matter, dark energy and the Big Bang model. Current research in the different areas will be discussed. Knowledge of high school algebra is assumed. IAI P1 906L
Typically offered: Fall, Spring, Summer

Aviation (AVM)

AVM 100 - Introduction to Aviation Management (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides students with the academic knowledge necessary to oversee departments of airlines and airports, learn about aviation laws, regulations and various aspects of aviation management. This course requires independent research and also focuses on the application of business principles for airport and aviation management.

AVM 101 - Aircraft Blueprint Reading (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Reviews the theory and application of blueprint reading. Includes the types of aircraft drawings, measuring tools, and layout equipment; reference lines, drawing formats, manufacturing codes, hardware and materials. Includes production of aircraft sketches, drawings, graphs, charts, usage of aircraft schematics, assembly and exploded diagrams. Prerequisite: MTH 100 with a grade of C or better or concurrent enrollment.

AVM 107 - History of Aviation (3 Credits)
3 lecture, 0 lab, 3 total contact hours
This course is designed to give the students a historical perspective of the major events leading up to the modern air transportation industry. It provides a chronological review of the history of aviation beginning with the first balloon flight in 1783 continuing through the development of the modern turbofan jet transport airplane. This course covers the advancement of aircraft through the technological research by the military and space flight developments.

AVM 111 - Aircraft Electrical Systems (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides the framework of aircraft electricity. Includes the study of matter, electron theory, current/electron flow, direct and alternating current, Ohm's Law, Kirchoff's laws, circuit elements, use of testing equipment, and electrical calculation and measurements. Includes interpretation of schematics and other writing diagrams, battery theory and maintenance, aircraft electrical systems, and introduction to communication and navigation radio systems. Incorporates the study of aircraft airframe electrical components as well as airframe and powerplant electrical systems. Prerequisite: MTH 100 with a grade of C or better or concurrent enrollment.

AVM 112 - Aviation Security Management (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Reviews aviation security personnel practices and processes to coordinate and implement the application of airport security preventive measures that align with FAA regulatory requirements. Provides a detailed analysis of effective procedures including situational awareness, teamwork, and effective communication and policies to prevent the intentional sabotage of aviation systems.

AVM 130 - Aircraft Propellers (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Reviews the basics of aircraft propellers. Includes propeller theory, nomenclature, types, construction, and installation and maintenance. Also includes constant speed systems, feathering systems, reversing systems, icing systems, synchronizing systems, and un-ducted fans. Prerequisite: AVM 101 with a grade of C or better.

AVM 155 - Aviation Physics (3 Credits)
1.5 lecture, 3 lab, 4.5 total contact hours
Reviews the principles of hydraulic power. Includes basic physics, mechanical, heat and fluid dynamics. Addresses basic aerodynamics, fabrication and installation of fluid lines and fittings, laws of motion, and other aircraft nomenclature. Prerequisite: MTH 100 with a grade of C or better or concurrent enrollment.

AVM 160 - Materials and Processes (3 Credits)
1.5 lecture, 3 lab, 4.5 total contact hours
Reviews the use of metallic and non-metallic structural materials for comparison of their structural properties. Includes metal processing, heat treatment, structural materials, heat treatment of alloys or limited use metals, non-destructive testing and/or inspection, corrosion, corrosion-prone areas, and corrosion control. Covers steel, aluminum and limited-use metals, processes and materials for corrosion control, aircraft cleaning, and aircraft cleaning agents. Prerequisite: MTH 100 with a grade of C or better or concurrent enrollment.

AVM 201 - Aviation Safety, Rules and Regulations (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Reviews personal safety concerns human factors, accident avoidance, facility fire protection, use and handling of hazardous materials, ramp procedures and the securing and servicing of aircraft and ramp support equipment. Includes forklift training and certification. Reviews Federal Aviation Administration (FAA) regulatory requirements. Includes certification of aircraft and components, FAA regulations for aircraft maintenance, manufacturing standards, inspection requirements, mechanic certification, FAA publications, maintenance publications and aircraft logs. Prerequisite: MTH 100 with a grade of C or better or concurrent enrollment.

AVM 203 - Aviation Career Preparation (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Reviews the roles, requirements and responsibilities necessary for a career in the aviation industry. This includes aviation managers, freight managers, vendor leadership managers, safety managers, facilities managers, airline managers, maintenance technicians, and numerous other positions that are vital to effective and efficient daily operations of the aviation industry. This course will also cover the history of the Chicago Department of Aviation, aviation terminology, FAA regulations and current career opportunities and employment trends in the industry.

AVM 209 - Weight and Balance (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Covers preparation of aircraft for weight and balance. Includes service and maintenance manuals, type certificate data sheets, standard weight and balance practices, weighing an aircraft, calculating center gravity, and correction of out of balance conditions. Includes addition and subtraction of equipment, equipment lists, flight manual updates, control surface balancing, identification and selection of standard hardware, installation and assembly of specialty hardware, and use of precision measuring equipment. Prerequisite: MTH 100 with a grade of C or better or concurrent enrollment.

AVM 211 - Aviation Management II (3 Credits)
3 lecture, 0 lab, 3 total contact hours
This course provides an in-depth analysis of the airline characteristics, scope and economics focusing on airline management technical tools and management functions. Provides an historical perspective of the US airlines, air transportation and regulators and associations. Familiarizes students with the US airline industry, management, organization and studies forecasting methods, marketing, scheduling, fleet planning, financing and labor relations. Further examines management functions of planning, organizing and directing with a focus on airline management. Prerequisite: AVM 100 with a grade of C or better.

AVM 214 - Aviation Safety Management and Regulations (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Reviews the principles and regulatory practices of commercial aviation safety in the United States and throughout the world. Addresses the regulatory information provided by the International Civil Aviation Organization and Safety Management Systems (SMS) that is critical to aviation safety. Prerequisite: AVM 112 with a grade of C or better.

AVM 215 - Alternate Structures (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Conducts aircraft structural fabrication using wood, tube steel and fabric processes and techniques. Includes structural types, wood and welded tube steel fabrication methods, welding of typical metals used in aircraft construction, fabric covering processes, inspection and maintenance, typical repair procedures, and aircraft finishings Prerequisite: MTH 100 with a grade of C or better or concurrent enrollment.

AVM 219 - Engine Electrical Systems (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Examines inspection, repair, and modification of engine electrical systems. Includes magnetos (components, tooling, wiring, and drives), ignition switches, ignition harness, ignition booster system, spark plugs, engine ignition analyzers, turbine engine (ignition transformers and igniter plugs), engine electrical controls (switches, fuses and circuit breakers, circuits, wiring, installation, and engine bulkhead), and technical data manuals and catalogs. Prerequisite: AVM 101 and AVM 201 with grades of C or better.

AVM 220 - Hydraulic and Pneumatic Power (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Examines hydraulic and pneumatic system components. Includes system operating principles, fluids, pressures, hydraulic powered flight controls, landing gear, braking and accessory power systems, pneumatically powered or assisted accessories, and system and component inspection servicing repairs. Prerequisite: MTH 100 with a grade of C or better or concurrent enrollment.

AVM 221 - Air Traffic Control Systems (3 Credits)
3 lecture, 0 lab, 3 total contact hours
This course outlines the development of the Air Traffic Control (ATC) system along with many of the FAA rules and regulations governing visual and instrument flight. It includes a review of the intricate procedures, rules, systems and phraseology used today for controlling air traffic and provides a brief look at future requirements in the domestic and international arena. Prerequisite: AVM 222 with a grade of C or better.

AVM 222 - Airport Planning and Management (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Reviews varying aspects of airport infrastructure, from the airfield and runway to airspace, air traffic control, and terminal and security systems. Thoroughly addresses the FAA's National Plan of Integrated Airport Systems (NPIAS), historical and current legislation and regulations, FAR Part 139. Students will explore cutting-edge concepts such as automation, smart baggage handling, enhanced security, and analytics. Prerequisite: AVM 100 with a grade of C or better.

AVM 223 - Airframe Inspection (3 Credits)
1.5 lecture, 3.5 lab, 5 total contact hours
Engages in conformity inspections of airframes. Includes inspections of incoming spare parts and stock items, airframe and equipment conformity inspections, airframe and systems airworthiness and conformity inspections, conformity inspections of installed equipment, annual and 100-hour inspections of small aircraft, including research of all pertinent inspection documents, service or maintenance manuals, type certificate data sheets, airworthiness directives, service bulletins and additional instructions for continued airworthiness, inspection procedures for large aircraft work orders, and non-routine job cards used by local aviation maintenance companies. Prerequisite: AVM 101 with a grade of C or better.

AVM 225 - Engine Air Flow Systems (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Addresses fundamentals of engine air flow systems. Includes reciprocating engine induction systems, alternate induction air systems, induction systems maintenance, superchargers, turbochargers, turbo compound systems, reciprocating engine exhaust systems, exhaust subsystems, exhaust system maintenance, reciprocating engine cooling, turbine engine induction systems, turbine engine cooling, turbine engine exhaust systems, turbine engine exhaust systems maintenance, and turbine engine airflow subsystems. Prerequisite: AVM 101 and AVM 201 with grades of C or better.

AVM 226 - Aircraft Maintenance Management (3 Credits)
3 lecture, 0 lab, 3 total contact hours
A comprehensive overview of the structured aircraft maintenance and engineering programs established by the aircraft manufacturer and certified by the Federal Aviation Administration for civil aviation. Areas of emphasis include maintenance program development, maintenance documentation, the role of engineering, maintenance, maintenance support, quality control, reliability and safety within the program.

AVM 227 - Atmospheric Controls (3 Credits)
1.5 lecture, 3 lab, 4.5 total contact hours
Examines atmospheric controls and its elements that are of concern to flight. Includes control systems; types of operations and maintenance; and physiological requirements for flight crews, passengers, and the human support systems. Includes oxygen systems; cabin pressurization system and operations; and safety and maintenance requirements. Prerequisite: MTH 100 with a grade of C or better or concurrent enrollment.

AVM 229 - Reciprocating Engine Overhaul (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Reviews basic aircraft reciprocating engine overhaul. Includes engine components, wrist pins, connection rods, crankshafts, case, cam shafts, lifters, valves, push rods and tubes, rocker assemblies, accessories, lubrication, overhaul options, overhaul credentials, overhaul procedures, reassembly after overhaul, engine installations, engine break-in, and test cell procedures. Prerequisite: AVM 219 with a grade of C or better.

AVM 230 - Fuel Systems (3 Credits)
1.5 lecture, 3 lab, 4.5 total contact hours
Examines the theory and application of fire, ice, rain and fuel systems. Includes fire detection terms, extinguishing and protection systems, smoke detection, fire warning, and fire extinguishing system components used. Investigates how systems function, inspection testing and maintenance, ice and rain protection terms, formation and conditions for icing of aircraft, ice and rain detection, protection systems components, functions, inspection and maintenance, fuel systems terms, safety systems requirements, fuel tank types and construction indicating, fueling, and defueling inspection and maintenance. Prerequisite: MTH 100 with a grade of C or better or concurrent enrollment.

AVM 232 - Civil Aviation (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Reviews the three major categories of aviation: Commercial air transport, focuses on scheduled and non-scheduled passenger and cargo flights. Aerial work focuses on aircraft that is used for specialized services such as photography, surveying, agriculture, and search and rescue. General aviation addresses all other civil, private and or commercial flights. This applies to both national and international aviation. Prerequisite: AVM 222 with a grade of C or better.

AVM 234 - Aviation Human Factors and Safety (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Focuses on human factors including all sensory, perceptive, cognitive and decision-making dynamics as they are expressed in aviation. Addresses aviation safety including incidents, accidents, crew resource management and performance. Prerequisite: AVM 112 with a grade of C or better.

AVM 235 - Engine Support Systems (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Examines theory and application of support systems for gas turbine engines. Includes fire protection, fire detection systems, fire extinguishing agents and systems, and fire detection and extinguishing system maintenance. Also includes turbine engine pneumatic systems, pneumatic starting systems, thrust reversers, auxiliary power units, turbine engine removal and installation, and engine storage and transport. Prerequisite: AVM 111 and AVM 201 with grades of C or better.

AVM 237 - Engine Fuel Metering and Operation (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Examines fundamentals of aircraft fuel systems. Includes fuel metering theory and requirements, aviation fuels, float type carburetion, float carburetor maintenance and installation, and pressure carburetor maintenance and installation. Also includes fuel injection systems, Bendix fuel injection and maintenance, and Teledyne Continental Motors (TCM) fuel injection and maintenance. Also includes fuel metering system components and maintenance, turbine engine fuel systems components and maintenance, jet fuel controls; and reciprocating, turbine, and turbo propeller engine operations. Prerequisite: AVM 219 with a grade of C or better.

AVM 239 - Transportation Labor Relations (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Reviews the labor-management relations in the aviation industry and evaluates contemporary labor issues. Topics and issues are addressed focusing on the larger scope of labor-management relations and with developments in labor as a consequence of deregulation. The institutional framework of collective bargaining and promoting industrial peace are also addressed. Prerequisite: AVM 211 with a grade of C or better.

AVM 245 - Turbine Engines (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Reviews basic gas turbine engine and turbo propeller component makeup and repair. Includes inspection, servicing, and repairs performed on engine components: compressor, diffuser, combustion, accessory drive, and lubricating system. Also includes a reassembly overhaul. Prerequisite: AVM 219 with a grade of C or better.

Biology (BIO)

BIO 101 - Biology Survey (3 Credits)
3 lecture, 3 total contact hours
Surveys the science of biology, emphasizing the human organism. Includes chemical and physical properties, physiological systems of control, growth, differentiation, reproduction, genetics, ecology, evolution and ethical considerations. Also includes a broader overview of the plant and animal kingdoms and humans' place in, and interaction with, those kingdoms. pending IAI L1 900 (NOTE: Not science lab credit.)
Typically offered: Fall, Spring, Summer

BIO 103 - Humans and the Environment (3 Credits)
3 lecture, 3 total contact hours
Surveys and analyzes the interrelationship between humans and the environment. Topics include ecology, biodiversity, evolution, natural resources and their use, physiology and health, and human populations. Examines human's ecological, social, and cultural impacts on our environment. (NOTE: Not Lab science credit.) IAI L1 905
Typically offered: Fall, Spring, Summer

BIO 104 - Environmental Laboratory Biology (4 Credits)
2 lecture, 4 lab, 6 total contact hours
Investigates the interrelationship between humans and the environment through scientific inquiry. Lecture and laboratory topics include the scientific method, ecosystems, biodiversity, energy sources, natural resources, conservation, pollution and population dynamics. Incorporates chemical and physical aspects as applicable to relevant biological concepts. Examines human's ecological, social and cultural impacts on our environment and possible solutions. Laboratory experiences involve some outside field work and field trips. Intended for non-science majors. (NOTE: Lab science credit.) IAI L1 905L
Typically offered: Fall, Spring

BIO 105 - Heredity, Evolution and Society (3 Credits)
3 lecture, 3 total contact hours
Examines life and the evolutionary record with emphasis on human genetics and inheritance. Factors such as current applications of biotechnology and its ethical, political and social implications in the 21st century are considered. (NOTE: Not science lab credit.) IAI L1 906
Typically offered: Fall, Spring, Summer

BIO 110 - Introduction to Biology and Society (4 Credits)
3 lecture, 3 lab, 6 total contact hours
Surveys the science of biology through scientific inquiry, emphasizing its impacts on humans and society. Includes chemical and physical properties, physiological systems of control, growth, differentiation, reproduction, genetics, ecology and evolution with ethical and societal considerations. Provides a broad overview of the plant and animal kingdoms as well as the interactions with these organisms and humans, especially from a societal perspective. (NOTE: Lab Science credit.) IAI L1 900L
Typically offered: Fall, Spring, Summer

BIO 115 - Fundamentals of Cellular Biology (4 Credits)
3 lecture, 3 lab, 6 total contact hours
Introduces fundamental processes of organisms operating at the molecular and the cellular level of organization. Topics include chemical and molecular aspects of life, cellular metabolism, genetic information flow, theory of inheritance, genetic engineering and principles of physiology. This course is in the first semester of a two-semester sequence intended for biology majors and pre-professionals. To guarantee credit students must complete the entire course sequence at the same school before transfer. (NOTE: Lab science credit.) IAI L1 910L, IAI BIO 910 Prerequisite: Prerequisite: Placement into college-level mathematics without support AND placement into college-level English without support https://www.harpercollege.edu/testing/mathplacement.php https://harpercollege.edu/testing/english-placement-grid.php
Typically offered: Fall, Spring

BIO 116 - Fundamentals of Organismal Biology (4 Credits)
3 lecture, 3 lab, 6 total contact hours
Introduces students to higher levels of biological organization from the organism to the ecosystem. Topics include organismal diversity, mechanisms of micro and macroevolution, animal behavior, and the dynamics and organization of populations, communities and ecosystems. This course is in the second semester of a two-semester sequence intended for biology majors and pre-professionals. To guarantee credit students must complete the entire course sequence at the same school before transfer. (NOTE: Lab science credit.) IAI L1 910L, IAI BIO 910 Prerequisite: BIO 115 (Fundamentals of Cellular Biology) with a grade of C or better, or consent of instructor.
Typically offered: Fall, Spring

BIO 120 - Plants and Society (4 Credits)
3 lecture, 3 lab, 6 total contact hours
Emphasizes scientific inquiry through selected concepts in biology such as organization, function, cellular and molecular biology, heredity, diversity, evolution and ecology using plants as the type of organism. Topics include plant structure, diversity, growth, genetics, evolution, physiology and reproduction. Economic, cultural, environmental and medical relationships between plants and humans are emphasized. (NOTE: Lab Science credit.) IAI L1 901L
Typically offered: Fall, Spring

BIO 135 - Introduction to Human Anatomy and Physiology (4 Credits)
4 lecture, 4 total contact hours
Surveys the human body, with emphasis on basic physical and chemical concepts, anatomy, physiology and embryology. Designed to meet the needs of students in certain allied health career programs. Knowledge of high school biology assumed. (NOTE: Not science lab credit.)
Typically offered: Fall, Spring

BIO 136 - Introduction to Human Disease (3 Credits)
3 lecture, 3 total contact hours
Surveys the nature of human disease, with emphasis on the functional disturbances within the body systems. Designed to meet the needs of students in certain allied health career programs. Knowledge of high school biology assumed. (NOTE: Not science lab credit.)
Typically offered: Spring

BIO 140 - Animals and Society (4 Credits)
3 lecture, 3 lab, 6 total contact hours
Emphasizes scientific inquiry through selected concepts in animal biology. Surveys the animal kingdom based on theory of organic evolution including morphology, histology, physiology, taxonomy, parasitology, embryology and ecology. Economic, environmental and medical relationships between animals and humans are emphasized. (NOTE: Lab Science credit.) IAI L1 902L
Typically offered: Fall, Spring

BIO 230 - Microbiology (4 Credits)
2 lecture, 4 lab, 6 total contact hours
Examines characteristics and importance of microorganisms; emphasis on identification, anatomy and physiology, control, relationship to health and disease and economic importance. College chemistry or equivalent is desirable. Strongly recommended preparation: One year of high school biology with a grade of C or better taken within the last five years, or BIO 110.(NOTE: Lab science credit.) Formerly BIO 130. Prerequisite: Placement into college-level English without support. https://www.harpercollege.edu/testing/english-placement-grid.php
Typically offered: Fall, Spring, Summer

BIO 260 - Human Anatomy (4 Credits)
3 lecture, 2 lab, 5 total contact hours
Introduces the anatomy of the human body; the following systems studied either regionally or systemically: integumentary, skeletal, articular, muscular, circulatory, lymphatic, nervous, respiratory, digestive, excretory, endocrine and reproductive. Includes some introductory histology. Specially designed for students in health careers, biology, and physical education. Strongly recommended preparation: One year of high school biology with a grade of C or better taken within the last five years, or BIO 110. (NOTE: Lab science credit.) Formerly BIO 160. IAI BIO920C Prerequisite: Placement into college-level English without support. https://www.harpercollege.edu/testing/english-placement-grid.php
Typically offered: Fall, Spring, Summer

BIO 261 - Human Physiology (4 Credits)
3 lecture, 2 lab, 5 total contact hours
Emphasizes physiological principles at the molecular, cellular, tissue, organ and system level, as they pertain to the human organism. The following systems are studied in detail: skeletal, muscular, circulatory, nervous, digestive, respiratory, urinary, reproductive and endocrine. In this course, special applications will be made to meet the needs of students in health careers, biology and physical education.(NOTE: Lab science credit.) Formerly BIO 161. IAI BIO920C. Prerequisite: BIO 260 with a grade of C or better.
Typically offered: Fall, Spring, Summer

BIO 295 - Independent Research in Biology I (1-3 Credits)
0 lecture, 3 - 9 lab, 3 - 9 total contact hours
Provides experimental exploration of a scientific research topic under the supervision of a faculty member. This laboratory course is designed to teach the principles and practice of experimental biology in an area of both student interest and faculty expertise. Before registering, students must submit to the Biology Department a contract with the instructor for accomplishing a defined research task. Credit is contingent on the submission of a final report. Prerequisite: BIO 110 with a grade of C or better, prior consultation with instructor, copleted contract, and consent of department chair.

Cannabis Science/Therapeutics (CNB)

CNB 101 - Introduction to Cannabis (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Studies the history of cannabis, cannabis plant anatomy, and cannabis strains. Addresses methods of cannabis consumption, common cannabis myths, and the stigmatization of cannabis in the United States.
Typically offered: Fall, Spring

CNB 102 - Cannabis Law and Policy (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Addresses the evolution of federal and state cannabis legislation. Examines legal aspects of licensed cannabis businesses. Distinguishes between state laws related to medical and recreational (or adult use) cannabis and provides an overview of the legal provisions under state law. Examines federal cannabis laws and review case law related to intellectual property, and patent, and trademark infringement within the cannabis industry. Students will engage in a foundational review of tax regulations, including 280e and 471.
Typically offered: Fall, Spring

CNB 104 - Cannabis Pharmacology (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Presents the effects of various components of the cannabis plant and how the body responds to cannabis-based medications and therapeutic treatments. Teaches about the history of medical cannabis and studies the role of the Endocannabinoid system, in addition to the therapeutic effects of various methods of cannabis administration. The course will also address the fundamental pharmacological properties of pharmacokinetics and pharmacodynamics as they influence routes of administration, drug distribution, drug levels in the body, and adverse reactions to cannabis use. Prerequisite: CNB 101 and CNB 102 with grades of C or better.
Typically offered: Spring, Summer

CNB 105 - Dispensary Operations (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Introduces the student to the requirements of compliance for operation of a State of Illinois cannabis dispensary. Examines various cannabis strains and cannabis products. Addresses proper packaging, storage, and distribution along with regulatory policies and agencies in Illinois. Teaches proper dispensary security and safety protocols. Prerequisite: CNB 101 and CNB 102 with grades of C or better.
Typically offered: Spring, Summer

CNB 110 - Cannabis Therapeutics and Client Communication (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Examines how cannabis is used as a therapeutic treatment for conditions commonly associated with diseases including, but not limited to chronic pain, cancer, AIDS, glaucoma, and autism. Studies the efficacy of cannabis in treating disease conditions, including conditions of the nervous, digestive, cardiovascular and respiratory systems. Teaches key concepts in oral communications and public speaking when interacting with clients in a cannabis business establishment. Prerequisite: CNB 101 and CNB 102 with grades of C or better.
Typically offered: Fall, Summer

CNB 112 - Dispensary Advocacy Internship (2 Credits)
0 lecture, 10 lab, 10 total contact hours
Offers students an opportunity to actively engage in the cannabis industry by contributing to local efforts related to reforming cannabis legislation. Examines industry equity, and practices which have limited the participation of disenfranchised communities in the cannabis industry. Focuses on the history of cannabis prohibition, legislation, effective volunteerism, and community engagement. Students are required to complete a 40-hour internship with a cannabis nonprofit organization. Prerequisite: CNB 104, CNB 105, CNB 110 with grades of C or better.
Typically offered: Fall, Summer

Capstone (CAP)

CAP 201 - Social Transformation Capstone (1-3 Credits)
0 - 1 lecture, 0 - 4 lab, 0 - 5 total contact hours
Focuses on developing project design and management skills for the purposes of analyzing global movements and/or addressing social justice problems and solutions. Special emphasis will be given to interdisciplinary questions, methods, and applications related to information literacy, intercultural communication and collaboration, critical thinking, and civic engagement. Students will have the opportunity to reflect on their personal, professional and academic journeys with the goal of applying acquired knowledge toward fostering justice-oriented social transformation. May be repeated up to a maximum of three credit hours. Prerequisite: Student must have completed at least 6 credit hours in their desired distinction(s) (meaning, 6 credit hours in World Cultures and Diversity courses if pursing the Global Scholars Distinction, or 6 credit hours in Social Justice Studies courses if pursuing the SJS distinction). Student must also be enrolled in at least their 9th credit hour.

Career Development (CDV)

CDV 110 - Career Development (2 Credits)
2 lecture, 2 total contact hours
Provides the opportunity to explore career interests, experiences, skills, abilities and work related values. Examines information about the world of work including the nature of various careers, labor market trends, job search strategies, education and training requirements and diversity in the workplace. Information will be integrated so students will be able to develop educational and career goals.

Certified Nursing Assistant (CNA)

CNA 111 - Nursing Assistant Training (4 Credits)
3 lecture, 2 lab, 5 total contact hours
Provides theory and training in the basic skills essential to the practice of health care workers who will assist the nurse in the care of patients in a variety of health care settings. Includes simulated practice and opportunity for clinical application. This course is approved by the Illinois Department of Public Health, Office of Health Regulations. Successful completion is required for application for the Nurse Aide Competency Exam. NOTE: Students are required to have a valid Social Security number, pass a criminal background check, and meet health requirements for the clinical portion of the class. Special fees apply.
Typically offered: Fall, Spring, Summer

CNA 112 - Nursing Assistant Training: Clinical Experience (2 Credits)
0 lecture, 6 lab, 6 total contact hours
Provides lab and clinical training in the basic skills essential to the practice of health care workers who will assist the nurse in the care of patients in a variety of health care settings. This course will be held off campus for the clinical experience. Includes simulated practice and opportunity for clinical application. This course is approved by the Illinois Department of Public Health, Office of Health Regulations. Successful completion is required for application for the Nurse Aide Competency Exam. NOTE: Students are required to have a valid Social Security number, pass a criminal background check and meet health requirements. Special fees apply. Prerequisite: CNA 111.
Typically offered: Fall, Spring, Summer

Chemistry (CHM)

CHM 100 - Chemistry for the Health Sciences (4 Credits)
3 lecture, 3 lab, 6 total contact hours
Introduces basic concepts of inorganic and organic chemistry and biochemistry. Emphasizes chemical principles applied to biological systems. Laboratory exercises apply theory to biological and consumer products. Especially designed for students in allied health sciences. Meets the prerequisite of the Nursing program. IAI P1 902L
Typically offered: Fall, Spring, Summer

CHM 103 - The Chemistry Connection (4 Credits)
3 lecture, 3 lab, 6 total contact hours
Introduces chemical principles to illustrate the significance of chemistry in the world today. Practical applications and current issues related to general chemistry, organic chemistry, and biochemical topics will be integrated with chemical concepts. Recommended for non-science majors. IAI P1 903L
Typically offered: Fall, Spring

CHM 105 - Chemical World (4 Credits)
3 lecture, 3 lab, 6 total contact hours
Relates biological and physical systems to chemistry. Focuses on four major themes: the sociology of science, chemical composition and change, the chemistry of life, chemistry and society. Corresponding laboratory is inquiry based. Designed to provide a higher level of scientific literacy to non-science majors and to provide elementary education majors, in particular, with the content knowledge and disposition about science that is necessary in order to be able to teach science in engaging and meaningful ways to their students. Aligned with State of Illinois teacher preparation standards. IAI P1 903L Prerequisite: Placement into college-level mathematics without support. https://www.harpercollege.edu/testing/mathplacement.php
Typically offered: Fall

CHM 110 - Fundamentals of Chemistry (4 Credits)
3 lecture, 3 lab, 6 total contact hours
Introduces concepts of chemistry. Emphasizes the composition of matter, the periodic table, the chemistry of solutions and chemical calculations. The laboratory experiments utilize many common household materials to demonstrate applications of chemical concepts. For students whose preparation does not permit enrollment in CHM 121. IAI P1 902L Prerequisite: MTH 070 (Plane Geometry) with a grade of C or better or Geometry Waiver AND placement into college level mathematics without support. https://www.harpercollege.edu/testing/mathplacement.php
Typically offered: Fall, Spring, Summer

CHM 121 - General Chemistry I (5 Credits)
4 lecture, 3 lab, 7 total contact hours
Studies principles of atomic and molecular structure, bonding, stoichiometry, states of matter, kinetic molecular theory, and solutions. Corresponding laboratory experiments include volumetric and gravimetric analyses, a qualitative study of reactions, visible spectrophotometry, and problem-based analyses. Intended for all students whose majors require general chemistry, including science majors and pre-professionals. The course also satisfies a general education laboratory science requirement for students with previous chemistry experience. IAI P1 902L, IAI CHM 911 Prerequisite: Two semesters of high school chemistry or CHM 110 with a grade of C or better AND placement into college-level mathematics without support. https://www.harpercollege.edu/testing/mathplacement.php
Typically offered: Fall, Spring, Summer

CHM 122 - General Chemistry II (5 Credits)
4 lecture, 3 lab, 7 total contact hours
Continues CHM 121 as the second semester of a general chemistry sequence intended for all students whose major requires a full year of general chemistry, including science majors and pre-professionals. Includes the principles of chemical kinetics, equilibrium, acid-base reactions, electrochemistry, and thermodynamics. Also introduces topics in organic, nuclear, transition metal, and descriptive chemistry. Laboratory includes experiments related to lecture material. IAI CHM 912 Prerequisite: CHM 121 (General Chemistry I) with a grade of C or better, or consent of instructor.
Typically offered: Fall, Spring, Summer

CHM 201 - Basic Organic Chemistry (4 Credits)
3 lecture, 3 lab, 6 total contact hours
Surveys topics of organic chemistry covering nomenclature, structure, reactions and synthesis of the major classes of organic compounds, including hydrocarbons, alcohols, aldehydes, ketones, carboxylic acids and amines. The laboratory includes experiments in distillation, crystallization, chromatography, extraction, synthesis and analysis. Prerequisite: CHM 100, CHM 110, or CHM 121 with a grade of C or better, or consent of instructor.
Typically offered: Spring

CHM 204 - Organic Chemistry I (5 Credits)
3 lecture, 6 lab, 9 total contact hours
Applies modern theories of electronic structures to the study of chemical and physical properties of alkanes, alkenes, alkynes, and alkyl halides. Students also study reaction mechanisms and stereochemistry as they apply to the above classes of organic compounds. Laboratory includes syntheses, qualitative organic analyses, IR and visible spectrophotometry, gas chromatography, thin layer chromatography, HPLC, polarimetry, and refractometry. Intended primarily for science majors and pre-professionals. IAI CHM 913 Prerequisite: CHM 122 with a grade of C or better, or consent of instructor.
Typically offered: Fall, Spring, Summer

CHM 205 - Organic Chemistry II (5 Credits)
3 lecture, 6 lab, 9 total contact hours
Continues CHM 204 with further study of nomenclature, stereochemistry, reactions, and mechanisms of the following functional groups: conjugated dienes, aromatics, alcohols, ethers, aldehydes, ketones, carboxylic acids and their derivatives, and nitrogen containing compounds. Laboratory includes syntheses, qualitative organic analyses, NMR, IR and UV-Vis spectrophotometry, gas chromatography, thin layer chromatography, HPLC, polarimetry, and refractometry. Intended primarily for science majors and pre-professionals. IAI CHM 914 Prerequisite: CHM 204 with a grade of C or better.
Typically offered: Fall, Spring, Summer

CHM 210 - Analytical Chemistry (5 Credits)
3 lecture, 6 lab, 9 total contact hours
Introduces theory and applications of sampling and quantitative chemical analysis with a focus on acid-base equilibria, complexation, extraction and chromatography, solubility, precipitation, redox reactions, and activity. Considerable emphasis is placed on extended equilibrium concepts and the fundamentals of spectroscopy. Laboratory experiments are related to lecture topics; they emphasize experimental precision and accuracy and include spreadsheet-based computer calculations. Prerequisite: CHM 122 or equivalent with a grade of C or better.
Typically offered: Fall, Summer

CHM 220 - Biochemistry (4 Credits)
3 lecture, 3 lab, 6 total contact hours
Introduces the chemical and physical properties of all classes of biological molecules and their assemblies including small molecules, macromolecules and processes found in living organisms. Includes structures of amino acids, nucleotides, lipids and sugars as well as their corresponding macromolecular structures, i.e., proteins, nucleic acids, membranes and polysaccharides as related to their biological functions; kinetics and mechanisms of enzymatic reactions, the central metabolic pathways and the genetic code. Introduces current biochemical techniques and the proper use of laboratory tools and equipment utilized in a biochemistry lab. Prerequisite: CHM 122 with a grade of C or better AND either CHM 201 or CHM 204 with a grade of C or better, or consent of the instructor.
Typically offered: Spring

CHM 295 - Independent Research in Chemistry I (1-3 Credits)
3 - 9 lab, 3 - 9 total contact hours
Provides experimental exploration of an authentic scientific research topic under the supervision of a faculty member. This laboratory course is designed to teach the principles and practice of modern experimental chemistry. Before registering, students must submit to the Chemistry Department a contract with the instructor for accomplishing a defined research task. Credit is contingent on the submission of a final report. Prerequisite: CHM 121 with a grade C or better, prior consultation with instructor, completed contract, and consent of Department Chair.
Typically offered: Fall, Spring

Computer Application Software (CAS)

CAS 105 - Word Processing Software (1 Credit)
.5 lecture, 1 lab, 1.5 total contact hours
Provides an opportunity to become proficient in the use of a currently popular word processing package. Includes editing, formatting, creating tables and outlines, and merging data.
Typically offered: Fall, Spring

CAS 115 - Spreadsheet Software (1 Credit)
.5 lecture, 1 lab, 1.5 total contact hours
Provides an opportunity to become proficient in the use of a currently popular spreadsheet package. Includes creating, editing and formatting worksheets and working with formulas, functions and charts.
Typically offered: Fall, Spring, Summer

CAS 125 - Database Software (1 Credit)
.5 lecture, 1 lab, 1.5 total contact hours
Provides an opportunity to become proficient in the use of a currently popular database package. Includes creating databases, tables and table relationships; maintaining and querying databases; and creating forms and reports.
Typically offered: Fall, Spring

CAS 135 - Presentation Software (1 Credit)
.5 lecture, 1 lab, 1.5 total contact hours
Provides an opportunity to become proficient in the use of a currently popular business presentation package. Includes editing, formatting, themes, slide masters and presentation effects.
Typically offered: Fall, Spring

CAS 160 - Introduction to Business Software Packages (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides an opportunity to become proficient in the use of currently popular software packages or suites. Includes word processing, spreadsheets, database, presentation software and the integration of these applications.
Typically offered: Fall, Spring, Summer

CAS 205 - Advanced Word Processing Software (1 Credit)
.5 lecture, 1 lab, 1.5 total contact hours
Provides an opportunity to become proficient in the use of a currently popular advanced word processing package. Includes document sharing, advanced content formatting, document tracking and reference tools, mail merge, forms and macros.
Typically offered: Fall, Spring

CAS 215 - Advanced Spreadsheet Software (1 Credit)
.5 lecture, 1 lab, 1.5 total contact hours
Provides an opportunity to become proficient in the use of a currently popular advanced spreadsheet package. Includes workbook sharing, advanced content formatting, data importing, filtering, charting, pivot tables, forms and macros. Prerequisite: CAS 115 or CAS 160 with a grade of C or better.
Typically offered: Fall, Spring, Summer

CAS 265 - Advanced Business Software Packages (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Providwes an opportunity to become proficient in advanced featrues of currently popular software packages or suites. Includes word processing, spreadsheets, databases, presentation software, and the integration of these applications. Prerequisite: CAS 160 with a grade of C or better.
Typically offered: Fall, Spring

CAS 290 - Office Assistant Capstone (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Provides students the opportunity to integrate skills introduced in preceding CAS courses through multi-task projects and case studies reflective of the current business office environment. Also provides a foundation for business office skills including time and workload management, records manageement, interpersonal skills, communication skills and leadership. Prerequisite: CAS 125 and CAS 135 with grades of C or better AND prior or concurrent enrollment in CAS 205 and CAS 215 with grades of C or better.
Typically offered: Fall, Spring

Computer Info Systems (CIS)

CIS 100 - Computer and Digital Literacy (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides the student with an introduction to computers in society and digital literacy. Includes computer hardware and operating systems, word processing, spreadsheets, presentation software, networking, internet usage, communication and collaboration, computer safety and ethics. This course is not intended for computer information majors.
Typically offered: Fall, Spring, Summer

CIS 101 - Introduction to Computer Information Systems (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides students with an introduction to computer and information systems used in business environments. Includes computer hardware, operating systems, information systems, programming concepts, computer security and ethics, and trains students in the use of business software including word processing, spreadsheets, presentation software, database management software, networking and internet access methods. IAI BUS 902
Typically offered: Fall, Spring, Summer

CIS 106 - Computer Logic and Programming Technology (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides students with a comprehensive introduction to computer programming using a currently popular programming language. Includes program logic, program structure, subroutines/functions/methods, variables, conditions, loops, arrays, files/data access, and object-oriented programming. A variety of programs are created throughout the course. Prerequisite: Math placement into MTH 101 or higher. https://www.harpercollege.edu/testing/mathplacement.php
Typically offered: Fall, Spring, Summer

CIS 137 - Computer Internship I (3 Credits)
1 lecture, 15 clinical/other, 16 total contact hours
Provides students with coordinated job experience in an information technology professional position such as computer networking or Web design. This course is repeatable up to a maximum of six credit hours. The one lecture hour per week will involve a seminar regarding technology issues. Prerequisite: Minimum of six credit hours of CIS courses with a GPA of 2.5 or better. Consent of program coordinator and internship instructor.
Typically offered: Fall, Spring

CIS 143 - Introduction to Database Systems (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides students with a comprehensive introduction to database concepts. Primary focus is on the relational model of database management and querying databases using Structured Query Language (SQL). Existing relational databases are examined and manipulated, and new relational databases are created. Prerequisite: CAS 160 or CIS 101 or WEB 110 with a grade of C or better, and placement into MTH 101 or higher. Click here for Math placement information: https://www.harpercollege.edu/testing/mathplacement.php
Typically offered: Fall, Spring, Summer

CIS 206 - Applied Programming (4 Credits)
3 lecture, 2 lab, 5 total contact hours
Introduces application development and problem solving using a currently popular programming language. Includes variables, conditions, loops, functions, strings, lists, dictionaries, sets, error handling, classes, file data, Internet data, databases, and code documentation. Prerequisite: CIS 106 or CSC 121 with a grade of C or better.
Typically offered: Fall, Spring

CIS 211 - IT Project Management (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides students with a comprehensive introduction to Information Technology project management. Includes project selection, initiation, planning, execution, monitoring and closure. Students gain practical project management skills and competencies related to Information Technology project management. Activities are performed using a currently popular project management software package. Aligns to the CompTIA Project+ certification. Prerequisite: CAS 105, CAS 115 and CAS 125 with grades of C or better, OR CAS 160 OR CIS 101 OR WEB 110 OR NET 105, with a grade of C or better; AND math placement into MTH 101 or higher. https://www.harpercollege.edu/testing/mathplacement.php
Typically offered: Fall, Spring

CIS 216 - Applied Object-Oriented Programming (4 Credits)
3 lecture, 2 lab, 5 total contact hours
Introduces object-oriented application development and problem solving using a currently popular programming language. Includes objects, classes, exception handling, unit testing, encapsulation, inheritance, polymorphism, data structures, data serialization, GUI applications, and web frameworks. Prerequisite: CIS 106 or CSC 121 with a grade of C or better.
Typically offered: Fall, Spring

CIS 220 - Topics in Computer Information Systems (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Studies selected problems, computer software or computer languages. The exact content and instructional methodology will vary semester to semester depending on the material to be studied. A syllabus or course outline containing additional information with pre-registration materials will be available each time the course is offered. This course may be repeated up to a maximum of six credit hours. Prerequisite: Consent of instructor.
Typically offered: Fall, Spring

CIS 226 - Programming for Cybersecurity (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides students with hands-on experience to build upon foundational programming skills to develop Python scripts and programs for modern security professionals to monitor, protect against, contain, respond to and recover from cyber attacks. Includes Python concepts used to facilitate cybersecurity initiatives. Prerequisite: CIS 106 or CSC 121 with a grade of C or better.
Typically offered: Fall, Spring

CIS 245 - Data Analysis (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Introduces data analysis using current statistical computing and graphics software. Includes descriptive statistics, probability, sampling, regression and hypothesis testing of large data sets used to make data-informed decisions. Prerequisite: CIS 106 or CSC 121 with a grade of C or better.
Typically offered: Fall, Spring

Computer Science (CSC)

CSC 121 - Computer Science I (4 Credits)
3 lecture, 2 lab, 5 total contact hours
The first in a sequence of courses for majors in Computer Science, Mathematics, and Engineering. Introduces a disciplined approach to problem-solving and algorithm development, in addition to an introduction to procedural and data abstraction. Covers: selection, repetition, and sequence control structures; program design, testing, and documentation using good programming style; block-structured high-level programming languages; and arrays, records, and files. IAI CS911 Prerequisite: MTH 070 (Plane Geometry) with a grade of C or better or Geometry Waiver; AND college-level placement in mathematics. https://www.harpercollege.edu/testing/mathplacement.php
Typically offered: Fall, Spring, Summer

CSC 122 - Computer Science II (4 Credits)
3 lecture, 2 lab, 5 total contact hours
The second in a sequence of courses for majors in Computer Science. Covers: design and implementation of large-scale problems; abstract data types; data structures (files, sets, lists, stacks, queues, and trees); program verification and complexity; recursion; dynamic concepts (memory, scope, block structures); text processing; and an introduction to searching and sorting algorithms. This course will use the same programming language as CSC 121: Computer Science I (IAI CS911: Computer Science I). IAI CS912 Prerequisite: CSC 121 Computer Science I (IAI CS911 Computer Science I) with grade of C or better.
Typically offered: Fall, Spring, Summer

CSC 211 - Introduction to C Programming and UNIX (4 Credits)
3 lecture, 2 lab, 5 total contact hours
Develops working knowledge in the use of the computer in the C programming language. Includes problem formulation, data storage and retrieval, algorithms, flowcharts or pseudocode, numerical analysis and structural programming, lexical analysis and string manipulation. Introduces student to a UNIX-like operating system environment. Intended for the computer science or engineering student. Prerequisite: CSC 121 with a grade of C or better, or consent of instructor.
Typically offered: Fall, Spring, Summer

CSC 214 - Java Programming (4 Credits)
3 lecture, 2 lab, 5 total contact hours
Introduces the Java language in a UNIX environment. Includes algorithms, problem formulation, structured programming, variables, data types, input/output repetition, selection, arrays, functions, classes/objects, stacks queues, linked structures, and recursion. Applications emphasize math, science, engineering, and computer science. This course will build on topics covered in CSC 121 (only in a new language). Prerequisite: CSC 121 with a grade of C or better, or consent of instructor.
Typically offered: Fall, Spring, Summer

CSC 216 - Data Structures and Algorithm Analysis (4 Credits)
3 lecture, 2 lab, 5 total contact hours
Provides exposure to techniques for storing and manipulating data. Includes discussion of insertion, deletion, and retrieval algorithms for stacks, queues, deques, linked lists, trees, etc. Emphasizes algorithm analysis as it builds on topics from previous course (CSC 122). Emphasizes mathematics, engineering, science, and computer science applications. Designed as the third of a sequence of courses (CSC 121, CSC 122, CSC 216 and CSC 217) for students majoring in computer science. Prerequisite: CSC 122 with a grade of C or better, or consent of instructor.
Typically offered: Fall, Spring, Summer

CSC 217 - Assembler Programming and Machine Organization (4 Credits)
3 lecture, 2 lab, 5 total contact hours
Emphasizes machine-level programming, instruction sets, data representation, subroutines, I/O hardware and software, linking and loading related to higher level languages. Designed as the fourth in a sequence of courses (CSC 121, CSC 122, CSC 216 and CSC 217) for students majoring in Computer Science. Prerequisite: CSC 216 with a grade of C or better, or consent of instructor.
Typically offered: Fall, Spring, Summer

Dental Hygiene (DHY)

DHY 100 - Introduction to Dental Hygiene Fundamentals (1 Credit)
0 lecture, 3 lab, 3 total contact hours
Introduces the dental hygiene profession including the role of the dental hygienist as a member of the dental health care team, professionalism, ethics related to the dental setting, evidence-based decision-making and inter-professional collaboration. Dental terminology, tooth identification and numbering, prevention of disease transmission including basic infection control and sterilization techniques, proper positioning and ergonomics, and initial instrument basics are emphasized. Strategies and skills for student success in the dental hygiene program will be address. Prerequisite: Admission into the Dental Hygiene program.
Typically offered: Summer

DHY 101 - Dental Hygiene Principles I (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Introduces the theory and scientific principles underlying the practice of dental hygiene. Emphasizes the clinical procedures and techniques for delivery of comprehensive patient care. Focuses on prevention of disease transmission; body mechanics; instrument classification and design; fundamentals of hand instrumentation; removal of biofilm, deposits, and extrinsic stain; patient communication and personal control of dental disease; documentation of patient care; and the electronic patient record. Prerequisite: DHY 100 with a grade of C or better and admission into the Dental Hygiene Program. Corequisite: DHY 105 and DHY 106.
Typically offered: Fall

DHY 105 - Dental Hygiene Preclinic Lab (2 Credits)
0 lecture, 6 lab, 6 total contact hours
Integrates the scientific and clinical principles underlying the practice of dental hygiene in a pre-clinical setting. Focuses on the clinical application of the dental hygiene process of care. Clinical assessment procedures and instrumentation techniques are practiced on mannequins and student partners. Clinical performance is evaluated through demonstration of skill acquisition at designated level of competency. Prerequisite: DHY 100 with grade of C or better and Admission into the Dental Hygiene Program. Corequisite: DHY 101 and DHY 106.
Typically offered: Fall

DHY 106 - Oral Health Assessment (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Introduces components of the dental hygiene process of care to include medical/dental history; common medical conditions; vital signs; medications and pharmacological information; head and neck examination; oral, dental and periodontal examinations; communication for assessment; and medico-legal documentation. Patient assessment skills will be practiced in the pre-clinical laboratory with fellow students as patients. Prepares the student for the assessment components of patient care in subsequent clinical courses. Prerequisite: DHY 100 with a grade of C or better and Admission into the Dental Hygiene Program. Corequisite: DHY 101 and DHY 105.
Typically offered: Fall

DHY 108 - Medical Emergencies In Dentistry (0.5 Credits)
.5 lecture, 0 lab, .5 total contact hours
Introduces basic understanding of disease states that may trigger medical emergencies and the means to prevent these emergencies through careful preoperative assessment and treatment modification. Studies common medical emergencies that may occur during delivery of dental care. Emphasis on methods to prevent emergencies from occurring and procedures to manage emergency situations. Reviews the management protocols for all medical emergencies occurring in the dental office environment. Prerequisite: DHY 100 with a grade of C or better and Admission into the Dental Hygiene Program.
Typically offered: Fall

DHY 111 - Dental Radiology I (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Provides theory in radiation physics, the mechanisms of x-ray generation, the effects of exposure factors on image quality, radiation safety principles, and the biological effects of ionizing radiation. Prerequisite: DHY 100 with a grade of C or better and Admission into the Dental Hygiene Program. Corequisite: DHY 113.
Typically offered: Fall

DHY 113 - Dental Radiology Laboratory (1 Credit)
0 lecture, 3 lab, 3 total contact hours
Introduces techniques of dental radiography. Intraoral digital exposure techniques, identification and correction of technique errors and introduction to image interpretation are emphasized. Practical experience provided on mannequins and selected patients with emphasis on implementation of principles of radiation safety and protection. Prerequisite: DHY 100 with a grade of C or better and Admission into the Dental Hygiene Program. Corequisite: DHY 111.
Typically offered: Fall

DHY 116 - Periodontology I (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Examines the anatomy and physiology of periodontium, correlating basic sciences with the clinical aspects of periodontal disease. Introduces the periodontium in health, oral biofilms, clinical features of the gingiva and progression of periodontal disease. Prerequisite: DHY 100 with a grade of C or better and Admission inot the Dental Hygiene Program.
Typically offered: Fall

DHY 119 - Oral Health Management of Special Needs Populations (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Introduces characteristics and oral health management needs of individuals and populations with special needs including patients with systemic/medical, physical, psychological, developmental, intellectual or social conditions that may influence delivery of dental services. Provides a framework of knowledge about factors that affect the management of the special needs dental hygiene patient. Descriptions of diseases or conditions, incidence, prevalence, etiology, clinical manifestations, medical treatment, oral manifestations, dental management considerations, and modifications of comprehensive dental hygiene care are emphasized. Includes the roles of interprofessional health care teams. Prerequisite: DHY 121, DHY 123, and DHY 125 with grades of C or better.
Typically offered: Summer

DHY 121 - Dental Hygiene Principles II (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Continues focus on the clinical procedures and techniques with emphasis on assessing, planning, implementing and evaluating the delivery of comprehensive patient care for diverse patient populations. Presents current theoretical perspectives in which to interpret and expand dental hygiene care. Develops problem solving abilities and critical thinking skills as they relate to the provision of dental hygiene care. Provides students with a more insightful view of the role of the dental hygienist in the delivery of comprehensive patient care. Prerequisite: DHY 101, DHY 105, and DHY 106 with grades of C or better. Corequisite: DHY 123 and DHY 125.
Typically offered: Spring

DHY 123 - Dental Hygiene Clinic I (2 Credits)
0 lecture, 8 lab, 8 total contact hours
Introduces dental hygiene practice providing patient care in the clinic setting. Provides a transition from the pre-clinic setting to provision of patient care with exposure to the culture of clinical dental hygiene. Emphasis on the dental hygiene process of care and instrumentation techniques. Comprehensive care provided for simple patient classifications. Students begin to apply knowledge, critical thinking, and clinical skills introduced in previously completed dental hygiene courses. Clinical performance is evaluated through demonstration of skill acquisition at designated level of competency. Prerequisite: DHY 101, DHY 105, and DHY 106 with grades of C or better. Corequisite: DHY 121 and DHY 125.
Typically offered: Spring

DHY 125 - Oral Health Strategies (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Introduces health behavior theories and concepts used in oral health instruction and patient education. Emphasis on prevention of dental diseases through effective patient oral health education; motivational interviewing; oral infection control and biofilm removal techniques; nutritional counseling; and smoking cessation intervention. Continues focus on the dental hygiene process of care including an awareness of cultural diversity and human differences. Reviews cultural competence; communication theory; development of patient/clinician relationships; and patient motivation with particular attention to psychological, social, economic, cultural and life stage factors. Prerequisite: DHY 101, DHY 105, and DHY 106 with grades of C or better. Corequisite: DHY 121 and DHY 123.
Typically offered: Spring

DHY 130 - Nutrition for Oral Health (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Explores the interrelationship between nutrition and oral health. Studies the role of diet in the development and integrity of the oral cavity and progression of oral diseases. Emphasis on nutritional screening of dental hygiene patients as a component of comprehensive oral care. Prerequisite: DHY 250, DHY 251 and DHY 253 with grades of C or better.
Typically offered: Spring

DHY 151 - Dental Hygiene Principles III (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Continues the study of the dental hygiene process of care. Focuses on the clinical procedures and techniques with emphasis on comprehensive care planning and implementation. Further develops clinical decision-making, problem solving and critical thinking skills as they relate to the provision of dental hygiene care. Prerequisite: DHY 121 and DHY 123 with grades of C or better. Corequisite; DHY 153.
Typically offered: Summer

DHY 153 - Dental Hygiene Clinic II (2 Credits)
0 lecture, 8 lab, 8 total contact hours
Continues dental hygiene clinical practice providing comprehensive patient care for diverse patient populations. Emphasis on assessing, planning and implementing comprehensive dental hygiene care for patients with simple to complex needs, with an emphasis on moderate cases. Students gain experience in the practical application of the dental hygiene process of care including introduction of advanced instrumentation and debridement techniques. Provides further opportunity to apply knowledge, critical thinking, and clinical skills acquired in previously completed dental hygiene courses. Clinical performance is evaluated through demonstration of skill acquisition at designated level of competency. Prerequisite: DHY 121 and DHY 123 with grades of C or better. Corequisite: DHY 151.
Typically offered: Summer

DHY 159 - Head and Neck Anatomy (3 Credits)
3 lecture, 3 total contact hours
Introduces anatomy of the head and neck regions with special emphasis on the human dentition. Skeletal, muscular, glandular, circulatory, nervous and epithelial structures are considered in detail. Also includes introductory material on human histology and orofacial embryology. NOTE: Students must be admitted into the DHY program to register for this course. Prerequisite: DHY 100 with a grade of C or better and Admission into the Dental Hygiene Program.
Typically offered: Fall

DHY 161 - Oral and Dental Anatomy (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Introduces the student to terms and anatomic structures of the oral cavity including a detailed study of crown and root morphology of both primary and permanent dentitions. NOTE: Students must be admitted into the DHY program to register for this course.
Typically offered: Fall

DHY 190 - General and Oral Pathology (2 Credits)
2 lecture, 2 total contact hours
Studies fundamentals of gross pathology and general pathological processes. Provides foundational knowledge related to the reaction of cells and tissues to injury and how diseases arise. Pathology terminology is introduced. Overview of basic disease processes are studied with specific emphasis on pathogenesis and clinical features of diseases of the orofacial complex. Correlates clinical manifestations of disease with dental hygiene practice focusing on recognizing deviations from normal, differential diagnosis, documentation, and referral. Includes discussion of the role of the dental hygienist in early detection, education and referral of lesions of the head and neck regions. Prerequisite: DHY 111, DHY 113, DHY 159 and DHY 161 with grades of C or better.
Typically offered: Spring

DHY 200 - Periodontology II (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Builds on the foundational knowledge presented in DHY 116 (Periodontology I). Focuses on best practices in periodontics; AAP classification system; etiology and pathogenesis of gingival and periodontal diseases including microbiological, host response, local and systemic risk factors, and clinical assessment of the periodontium. Emphasizes the clinical application of current theory. Prerequisite: DHY 101, DHY 105, DHY 106, and DHY 116 with grades of C or better.
Typically offered: Spring

DHY 201 - Ethics, Jurisprudence and Transition to Professional Practice (2 Credits)
2 lecture, 2 total contact hours
Introduces basic concepts of ethics, jurisprudence and professionalism. Examines the ethical and legal principles guiding the decision making and practice of dentistry and dental hygiene. Systems of ethical decision-making are applied in the context of oral health care and interprofessional practice, examining ethical issues and dilemmas in dental hygiene and the dental health care delivery system. Prepares for entry and transition into clinical practice including the roles and responsibilities of the dental hygienist as a member of the oral health care delivery team and the culture and climate of dental hygiene practice. Contemporary and professional issues that impact the current practice of dental hygiene will be explored. The scope of practice and licensure requirements of the dental hygienist will be reviewed. Aspects of dental practice management including appointment scheduling, recall systems, productivity, and patient record management will be addressed. Prerequisite: DHY 250 and DHY 251 with grades of C or better.
Typically offered: Spring

DHY 202 - Dental Radiology II (1 Credit)
3 lab, 3 total contact hours
Continues practice of digital intraoral image capture using photostimulable phosphor plates. Introduces digital intraoral sensor technology and digital extraoral radiography. Continues skill development in interpretation of dental radiographic images with focus on identification of normal, atypical and pathological entities. Radiographic identification and analysis of dental anomalies, dental caries, periodontal disease, and periapical lesions are emphasized. Clinical performance is evaluated through demonstration of skill acquisition at designated level of competency. Prerequisite: DHY 101, DHY 105, DHY 111, and DHY 113 with grades of C or better.
Typically offered: Spring

DHY 203 - Dental Radiology III (0.5 Credits)
0 lecture, 1.5 lab, 1.5 total contact hours
Continues DHY 202. Prerequisite: DHY 200, DHY 202, DHY 220, DHY 230, DHY 240 and DHY 250 with grades of C or better.
Typically offered: Summer

DHY 205 - Dental Radiology IV (0.5 Credits)
0 lecture, 1.5 lab, 1.5 total contact hours
Continues practice of digital intraoral and extraoral radiographic image capture. Emphasis on developing proficiency in radiographic exposure technique and interpretation skills. Provides further opportunity to apply knowledge, critical thinking, and clinical skills acquired in previously completed dental hygiene radiographic courses. Clinical performance is evaluated through demonstration of skill acquisition at designated level of competency. Prerequisite: DHY 151, DHY 153, and DHY 203 with grades of C or better.
Typically offered: Fall

DHY 207 - Dental Radiology V (0.5 Credits)
0 lecture, 1.5 lab, 1.5 total contact hours
Incorporates all previously acquired knowledge and techniques learned in Dental Radiology I, II, III and IV. Continues practice of digital intraoral and extraoral radiographic image capture and interpretation with emphasis on improving time management and refinement of radiographic skills. Clinical performance is evaluated through demonstration of skill acquisition at designated level of competency. Prerequisite: DHY 205, DHY 250, and DHY 251 with grades of C or better.
Typically offered: Spring

DHY 220 - Community Oral Health (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Introduces basic concepts and principles of dental public health, community dental health education, and community program planning as it relates dental hygiene. Topics include oral health trends, epidemiology, dental indices, community water fluoridation, prevention and control of oral diseases in a community, community dental health programs, and cultural competence for the dental health care provider. Review biostatistics and dental scientific literature as it applies to dental public health. Provides opportunities for outreach experiences in a variety of community health settings. Prerequisite: DHY 119, DHY 250, and DHY 251 with grades of C or better.
Typically offered: Spring

DHY 230 - Dental Pain and Anxiety Management (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Introduces the fundamentals of pain management techniques used in dentistry with focus on control of patient's pain and anxiety levels. Introduces basic and current concepts of pain control including local anesthesia and nitrous oxide sedation. Rationale for pain control; neuroanatomy; neurophysiology; pharmacology of local anesthetics and vasoconstrictors; non-injectable and injectable anesthetic agents; local and systemic complications; medical emergencies; patient assessment; and legal considerations will be covered. Prerequisite: DHY 151, DHY 153, DHY 240 with grades of C or better. Corequisite: DHY 232.
Typically offered: Fall

DHY 232 - Dental Pain and Anxiety Management Lab (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Provides instruction in topical and local anesthetic and nitrous oxide sedation techniques. Administration of local anesthesia including maxillary and mandibular field and nerve block injections and nitrous oxide sedation is practiced on student partners. Management of patients' pain and anxiety levels is emphasized. Clinical performance is evaluated through demonstration of skill acquisition at designated level of competency. Prerequisite: DHY 151, DHY 153, and DHY 240 with grades of C or better. Corequisite: DHY 230.
Typically offered: Fall

DHY 235 - Dental Scientific Literature (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Introduces principles of the scientific method to enable reading and critical appraisal of dental scientific literature. Emphasis is placed on evidence based literature evaluation, methodologies, types of research and research design. Focuses on developing competency in the use of scientific literature as a part of evidence-based decision-making in patient care and lifelong learning. Critique of oral health literature from peer reviewed journals is practiced. Prerequisite: DHY 116, DHY 151, DHY 153, and DHY 200 with grades of C or better.
Typically offered: Fall

DHY 240 - Dental Pharmacology for the Dental Hygienist (2 Credits)
2 lecture, 2 total contact hours
Examines characteristics of major drug groups, principles of drug actions, and effects on the body. Mechanisms of action, clinical applications, precautions, contraindications, and interactions of drugs, with implications for dental patient management will be discussed. Emphasis is placed on pharmaceutical and therapeutic agents used in dentistry. Prerequisite: DHY 121, DHY 123, and DHY 125 with grades of C or better.
Typically offered: Summer

DHY 250 - Dental Hygiene Principles IV (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Continues focus on dental hygiene process of care. Introduces advanced and adjunctive procedures which build upon basic concepts and skills learned in previous courses. Knowledge gained is applied in clinical practice. Prerequisite: DHY 151 and DHY 153 with grades of C or better. Corequisite; DHY 251.
Typically offered: Fall

DHY 251 - Dental Hygiene Clinic III (3 Credits)
0 lecture, 12 lab, 12 total contact hours
Continues dental hygiene clinical practice providing comprehensive patient care for diverse patient populations. Implementation of comprehensive dental hygiene care at a higher level of clinical competence. Emphasis on developing proficiency in advanced periodontal instrumentation skills and pain management techniques with opportunities to provide non-surgical periodontal therapy for complex periodontally involved patients. Clinical skills are strengthened through the application of evidence-based knowledge and best clinical practices. Provides further opportunity to apply knowledge, critical thinking, and clinical skills acquired in previously completed dental hygiene courses. Clinical performance is evaluated through demonstration of skill acquisition at designated level of competency. Prerequisite: DHY 151 and DHY 153 with grades of C or better. Corequisite: DHY 250.
Typically offered: Fall

DHY 253 - Periodontology III (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Continues focuses on best practices in periodontics, current concepts in application of evidence based clinical decision making, treatment planning for patients with periodontal disease and delivery of nonsurgical periodontal therapy. Reviews etiology and pathogenesis, host immune response, periodontal classifications, implant maintenance,and risk factors. Introduces chemical agents in periodontal care, periodontal surgical procedures, periodontal maintenance and emergencies. Emphasizes clinical application of current theory. Prerequisite: DHY 116, DHY 151, DHY 153, and DHY 200 with grades of C or better. Corequisite: DHY 255.
Typically offered: Fall

DHY 255 - Dental Hygiene Advanced Periodontology Clinic (1 Credit)
0 lecture, 4 lab, 4 total contact hours
Focuses on application of clinical best practices in periodontics, evidence-based treatment planning and implementation of phase 1 nonsurgical periodontal treatment therapy. Clinical application of advanced clinic techniques and concepts learned in Periodontology I, II and III. Emphasis on delivery of periodontal therapy for complicated periodontal cases and periodontally compromised patients. Prerequisite: DHY 116, DHY 151, DHY 153, and DHY 200 with grades of C or better. Corequisite: DHY 253.
Typically offered: Fall

DHY 260 - Dental Hygiene Principles V (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Synthesis of all areas of dental hygiene building upon the knowledge and skills learned in previous courses. Emphasis on management of complex patient cases. Refines critical thinking, problem-solving and clinical judgment skills related to delivery of comprehensive patient care. Focuses on advanced instrumentation and dental hygiene techniques, emerging topics and procedures in dentistry and dental hygiene. Prepares the student for the transition from student clinician to practitioner. Prerequisite: DHY 250 and DHY 251 with grades of C or better. Corequisite: DHY 262.
Typically offered: Spring

DHY 262 - Dental Hygiene Clinic IV (3 Credits)
0 lecture, 12 lab, 12 total contact hours
Incorporates all previously acquired knowledge and techniques learned in Clinical Dental Hygiene I, II and III. Continues focus on implementation of comprehensive dental hygiene care with emphasis on providing efficient, quality care to prepare the dental hygiene student to transition to professional practice. Management and treatment of patients with moderate to advanced periodontal disease. Emphasis on improving time management and refinement of all clinical skills. Clinical performance is evaluated through demonstration of skill acquisition at designated level of competency. Prerequisite: DHY 250 and DHY 251 with grades of C or better. Corequisite: DHY 260.
Typically offered: Spring

DHY 269 - Dental Materials for the Dental Hygienist (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Introduces composition, properties, characteristics, and care of various dental materials used in dentistry to fabricate dental appliances, tooth restorations and in the prevention and treatment of oral disease. Includes the study of the physical, mechanical, chemical and biocompatibility issues of these materials, their relationship to the oral environment, and the rationale for selecting one material over another. Emphasizes the clinical application and management of these materials from the dental hygiene perspective. Prerequisite: DHY 101, DHY 105, DHY 111 and DHY 113 with grades of C or better. Corequisite: DHY 270.
Typically offered: Spring

DHY 270 - Dental Materials Laboratory Techniques for the Dental Hygienist (1 Credit)
2 lab, 2 total contact hours
Introduces the use and manipulation of materials used in dentistry, with an emphasis on the clinical application of materials that relate directly to the functions of the dental hygienist. Emphasizes the clinical application and management of these materials from the dental hygiene perspective. Introduces composition, properties, characteristics and care of various dental materials used in dentistry with emphasis on impressions. Prerequisite: DHY 101, DHY 105, DHY 111 and DHY 113 with grades of C or better. Corequisite: DHY 269.
Typically offered: Spring

Diagnostic Cardiac Sonography (DCS)

DCS 101 - Electrocardiography I (2 Credits)
1.5 lecture, 1 lab, 2.5 total contact hours
Provides instruction and practice in the performance and comprehensive interpretation of rhythm ECGs. Covers related electrophysiology. Includes instruction in holter monitoring. Prerequisite: BIO135 or (BIO260 and BIO261) with a grade of C or better.
Typically offered: Fall

DCS 102 - Electrocardiography II (2 Credits)
1.5 lecture, 1 lab, 2.5 total contact hours
Provides instruction and practice in the performance and comprehensive interpretation of 12 lead ECGs. Covers related electrophysiology. Includes instruction in maximal stress testing. Prerequisite: DCS101 with a grade of C or better.
Typically offered: Spring

DCS 105 - Ultrasound Physics and Instrumentation I (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Instructs sonography students in the principles of ultrasound physics and instrumentation. Examines continuous and pulsed sound, sound wave intensities, interaction of sound and media, sound propagation, transducer basics, anatomy of a sound wave, and basic display modalities. Investigates axial, lateral, and temporal resolution. Prerequisite: Admission into the DCS program.
Typically offered: Fall

DCS 106 - Ultrasound Physics and Instrumentation II (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Continues to instruct sonography students in the principles of ultrasound physics. Examines probe types, system instrumentation, displays, storage, signal processing, harmonics, and enhancement agents. Covers hemodynamics, Doppler principles, image artifact, bioeffects, and quality assurance. Prerequisite: DCS 105 with a grade of C or better.
Typically offered: Spring

DCS 107 - Sonography Theory I (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Discusses the role of a sonographer and the sonography profession. Examines the different sonography specialty areas and related sonographic exams. Explores the ultrasound cross-sectional anatomy of the abdomen, pelvis, chest and neck. Maps the circulation of the cerebral vascular system. Introduces the normal and abnormal cerebrovascular ultrasound. Investigates cerebrovascular disease and trains the student to interpret cerebrovascular ultrasound exams. Corequisite: DCS 109.
Typically offered: Fall

DCS 108 - Sonography Theory II (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Builds on the theoretical foundations covered in DCS 107. Explores the ultrasound cross-sectional vascular anatomy of the extremities. Maps the circulation from the trunk to the periphery. Introduces the normal and abnormal peripheral arterial and venous sonogram. Investigates peripheral vascular disease. Trains the student to interpret peripheral arterial and venous sonographic studies. Prerequisite: DCS 107 with a grade of C or better. Corequisite: DCS 110.
Typically offered: Spring

DCS 109 - Sonography Lab I (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Provides supervised laboratory instruction and practice in the basics of ultrasound imaging. Introduces professional expectations of the student sonographer. Covers proper procedure and body mechanics for an ultrasound exam. Orients the student to imaging body habitus. Instructs on the operation of ultrasound equipment. Trains the student to perform diagnostic carotid sonograms. Pass/fail grade. Corequisite: DCS 107.
Typically offered: Fall

DCS 110 - Sonography Lab II (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Provides supervised laboratory instruction and practice in peripheral vascular ultrasound imaging. Trains the student to perform diagnostic peripheral arterial and venous sonographic examinations. Introduces cardiac imaging. Expands upon the professional expectations of the student sonographer. Pass/fail grade. Prerequisite: DCS 109 with a grade of C or better. Corequisite: DCS 108.
Typically offered: Spring

DCS 112 - Sonography Lab III (1 Credit)
0 lecture, 2 lab, 2 total contact hours
This course is only offered in the summer term. Provides additional laboratory practice in common vascular ultrasound exams and basic echo views. This course is not required for graduation. Pass/fail grade.
Typically offered: Summer

DCS 207 - Cardiac Sonography Theory I (6 Credits)
6 lecture, 0 lab, 6 total contact hours
Examines cardiac anatomy, mechanics and pressures. Presents the ultrasound cross-sectional anatomy of the heart. Introduces the normal and abnormal echocardiogram. Investigates valvular heart disease and ventricular systolic dysfunction. Trains the student to interpret these pathologies on an echocardiogram. Prerequisite: DCS 106 with a grade of C or better. Corequistie: DCS 209.
Typically offered: Fall

DCS 208 - Cardiac Sonography Theory II (6 Credits)
6 lecture, 0 lab, 6 total contact hours
Investigates a host of conditions that impact the heart and echocardiogram. Covers coronary, pulmonary, pericardial, myocardial, systemic, endocardial, congenital, and aortic disease as well as cardiac masses and trauma. Examines interventions such as valve repair, transplant, assist devices, and echo-guided procedures. Trains the student to evaluate these conditions on an echocardiogram. Introduces advanced echo modalities such as transesphogeal, 3D, stress, and enhancement agents. Prerequisite: DCS 207 with a grade of C or better. Corequisite: DCS 210.
Typically offered: Spring

DCS 209 - Cardiac Sonography Lab I (2 Credits)
0 lecture, 4 lab, 4 total contact hours
Provides supervised laboratory instruction and practice in cardiac ultrasound imaging. Trains the student to perform a basic adult echocardiogram. Reinforces the professional expectations of the student sonographer. Pass/fail grade. Prerequisite: DCS 106 with a grade of C or better. Corequisite: DCS 207.
Typically offered: Fall

DCS 210 - Cardiac Sonography Lab II (2 Credits)
0 lecture, 4 lab, 4 total contact hours
Continues supervised laboratory instruction and practice in cardiac ultrasound imaging. Trains the student to perform advanced targeted adult echocardiograms. Reinforces the professional expectations of the student sonographer. Pass/fail grade. Prerequisite: DCS 209 with a grade of C or better. Corequisite: DCS 208.
Typically offered: Spring

DCS 220 - Introduction to the Cardiac Sonography Clinical (2.5 Credits)
2 lecture, 1 lab, 3 total contact hours
Prepares the student for their role as a cardiac sonographer in the hospital setting. Covers relevant policies, procedures, and considerations for working in the hospital, caring for patients, and completing sonograms in the clinical environment. Grooms the student for entrance into the sonography profession. Includes simulated and observational hospital clinical experiences. Prerequisite: DCS 207 and DCS 209 with grades of C or better. Corequisite: DCS 208 and DCS 210.
Typically offered: Spring

DCS 230 - Cardiac Sonography Clinical (5 Credits)
0 lecture, 25 lab, 25 total contact hours
Provides the student with practical clinical experience performing adult echocardiograms in a hospital or other clinical setting. Orients the student to that hospital environment and the specific policies and procedures for completing sonograms in that medical setting. Allows the sthdent to perform these echocardiograms on patients under the close supervision of clinical staff. Provides an opportunity for students to develop and demonstrate the knowledge base, clinical skills, and professional skills required of an entry-level sonographer. Prerequisite: DCS 208, DCS 210 and DCS 220 with grades of C or better. (NOTE: The prerequisite is being waived for Fall 2020.)
Typically offered: Summer

DCS 260 - Advanced Sonography Seminar (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Introduces new or advanced topics in sonography. Explores the evolution and provides necessary background in terms of related anatomy, hemodynamics, physics and pathology. Presents related ultrasound case studies and trains in the interpretation of the ultrasound examination. Covers implications to the performance of the sonographic procedure including protocols, modalities and specific assessment techniques. Enhances the skill of the sonographer past entry level. May be repeated up to 6 credit hours.

Diagnostic Medical Sonography (DMS)

DMS 105 - Ultrasound Physics and Instrumentation I (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Instructs sonography students in the principles of ultrasound physics and instrumentation. Examines continuous and pulsed sound, sound wave intensities, interaction of sound and media, sound propagation, transducer basics, anatomy of a sound wave, and basic display modalities. Investigates axial, lateral, and temporal resolution. Prerequisite: Admission into the DMS program.
Typically offered: Fall

DMS 106 - Ultrasound Physics and Instrumentation II (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Continues to instruct sonography students in the principles of ultrasound physics. Examines probe types, system instrumentation, displays, storage, signal processing, harmonics, and enhancement agents. Covers hemodynamics, Doppler principles, image artifact, bioeffects and quality assurance. Prerequisites: DMS with a grade of C or better.
Typically offered: Spring

DMS 107 - Sonography Theory I (2 Credits)
2 lecture, 2 total contact hours
Discusses the role of a sonographer and the sonography profession. Examines the different sonography speciality areas and related sonographic exams. Explores the ultrasound cross-sectional anatomy of the abdomen, pelvis, chest and neck. Maps the circulation of the cerebral vascular system. Introduces the normal and abnormal cerebrovascular ultrasound. Investigates cerebrovascular disease and trains the student to interpret cerebrovascular ultrasound exams. Corequisite: DMS 109.
Typically offered: Fall

DMS 108 - Sonography Theory II (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Builds on the theoretical foundations covered in DMS 107 (Sonography Theory I). Explores the ultrasound cross-sectional vascular anatomy of the extremities. Maps the circulation from the trunk to the periphery. Introduces the normal and abnormal peripheral arterial and venous sonogram. Investigates peripheral vascular disease. Trains the student to interpret peripheral arterial and venous sonographic studies. Prerequisite: DMS 107 with a grade of C or better. Corequisite: DMS 110.
Typically offered: Spring

DMS 109 - Sonography Lab I (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Provides laboratory practice in the basics of ultrasound imaging. Introduces professional expectations of the student sonographer. Covers proper procedure and body mechanics for an ultrasound exam. Orients the student to imaging body habitus. Instructs on the operation of ultrasound equipment. Trains the student to perform diagnostic carotid sonograms. Pass/fail grade. Corequisite: DMS 107.
Typically offered: Fall

DMS 110 - Sonography Lab II (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Provides laboratory practice in peripheral vascular ultrasound imaging. Trains the student to perform diagnostic peripheral arterial and venous sonographic examinations. Non-imaging physiological peripheral arterial examination techniques are also covered. Expands upon the professional expectations of the student sonographer. Pass/fail grade. Prerequisite: DMS 109 with a grade of C or better. Corequisite: DMS 108.
Typically offered: Spring

DMS 112 - Sonography Lab III (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Provides additional laboratory practice in common vascular exams. This course is not required for graduation. Pass/fail grade.
Typically offered: Summer

DMS 201 - Introduction to the Medical Sonography Clinical (2.5 Credits)
2 lecture, 1 lab, 3 total contact hours
Prepares the student for their role as a medical sonographer in the hospital setting. Covers relevant policies, procedures, and considerations for working in the hospital, caring for patients, and completing sonograms in the clinical environment. Grooms the student for entrance into the sonography profession. Includes simulated and observational hospital clinical experiences. Corequisite: DMS 204, DMS 205 and DMS 206.
Typically offered: Fall

DMS 204 - Abdominal and Small Parts Sonography Theory I (4 Credits)
4 lecture, 4 total contact hours
Explores the ultrasound cross-sectional anatomy of the major structures and organs of the abdomen. Maps the related abdominal circulation. Introduces the normal and abnormal ultrasound of the liver, gallbladder, pancreas, spleen and urinary system. Investigates pathologies of these same structures. Trains the student to interpret these pathologies on ultrasound. Prerequisite: DMS 106 with a grade of C or better. Corequisite: DMS 205 and DMS 206
Typically offered: Fall

DMS 205 - Obstetrical and Gynecological Sonography Theory I (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Explores the ultrasound cross-sectional anatomy of the female pelvis. Maps the related pelvic circulation. Introduces the normal and abnormal ultrasound of the uterus, ovaries, adnexa, neonatal and pediatric pelvis, and the first trimester pregnancy. Investigates pathologies of these same structures. Trains the student to interpret these pathologies on ultrasound. Introduces the role of ultrasound in evaluating female infertility. Prerequisite: DMS 106 with a grade of C or better. Corequisite: DMS 204 and DMS 206.
Typically offered: Fall

DMS 206 - Medical Sonography Lab I (2 Credits)
0 lecture, 4 lab, 4 total contact hours
Provides supervised laboratory instruction and practice in abdominal and gynecologic ultrasound imaging. Trains the student to perform an ultrasound of the aorta, liver, gallbladder, pancreas, spleen, urinary system, non-cardiac chest, and female pelvis. Reinforces the professional expectations of the student sonographer. Pass/fail grade. Prerequisite: DMS 106 with a grade of C or better. Corequisite: DMS 204 and DMS 205.
Typically offered: Fall

DMS 207 - Medical Sonography Clinical I (5 Credits)
0 lecture, 25 lab, 25 total contact hours
Provides the student with practical clinical experience performing abdominal, small parts, vascular, obstetrical and gynecological ultrasounds in a hospital or other clinical setting. Orients the student to that hospital environment and the specific policies and procedures for completing sonograms in that medical setting. Allows the student to perform these ultrasounds on patients under the close supervision of clinical staff. Provides an opportunity for students to develop and demonstrate the knowledge base, clinical skills and professional skills required of an entry-level sonographer. Prerequisite: DMS 201, DMS 204, DMS 205 and DMS 206 with grades of C or better.
Typically offered: Spring

DMS 208 - Abdominal and Small Parts Sonography Theory II (4 Credits)
4 lecture, 4 total contact hours
Continues to explore the ultrasound cross-sectional anatomy of the abdomen and of specific small parts. Introduces the normal and abnormal ultrasound of the thyroid, scrotum, pediatric abdomen, gastrointestinal tract, abdominal walls and cavities, liver and urinary circulation, breast, neonatal spine and brain, and some specific musculoskeletal structures. Investigates pathologies of these same structures. Trains the student to interpret these pathologies on ultrasound. Introduces ultrasound-guided interventional techniques and emergent abdominal ultrasound procedures. Prerequisite: DMS 204 with a grade of C or better. Corequisite: DMS 209 and DMS 210.
Typically offered: Spring

DMS 209 - Medical Sonography Lab II (2 Credits)
0 lecture, 4 lab, 4 total contact hours
Continues supervised laboratory instruction and practice in abdominal, gynecologic and vascular ultrasound, expanding into more advanced or targeted ultrasound imaging. Trains the student to perform liver and kidney doppler as well as thyroid, breast, scrotal, transvaginal, obstetric and common musculoskeletal sonographic examinations. Reinforces the professional expectations of the student sonographer. Pass/fail grade. Prerequisite: DMS 206 with a grade of C or better. Corequisite: DMS 208 and DMS 210.
Typically offered: Spring

DMS 210 - Obstetrical and Gynecological Sonography Theory II (3 Credits)
3 lecture, 3 total contact hours
Builds on the theoretical foundations covered in DMS 205. Explores the ultrasound cross-sectional anatomy of the second and third trimesters. Maps fetal embryology. Introduces the normal and abnormal ultrasound of the first, second and thrid trimester pregnancy. Investigates pathologies of the pregnant uterus and the developing fetus. Trains the student to interpret these pathologies on ultrasound. Introduces 3D and 4D sonographic evaluations of fetal anomalies. Prerequisite: DMS 205 with a grade of C or better. Corerquisite: DMS 208 and DMS 209.
Typically offered: Spring

DMS 211 - Medical Sonography Clinical II (5 Credits)
0 lecture, 25 lab, 25 total contact hours
Continues the student's practical clinical experience performing abdominal, small parts, vascular, obstetrical and gynecological ultrasounds in a hospital or other clinical setting. Allows the student to perform thsese ultrasounds on patients under the close supervision of clinical staff. Continues to provide an opportunity for students to develop and demonstrate the knowledge base, clinical skills and professional skills required of an entry-level sonographer. Prerequisite: DMS 207 with a grade of C or better. (NOTE: The prerequisite is being waived for Fall 2020.)
Typically offered: Summer

DMS 260 - Advanced Sonography Seminar (1 Credit)
1 lecture, 1 total contact hours
Introduces new or advanced topics in sonography. Explores the evolution and provides necessary background in terms of related anatomy, hemodynamics, physics and pathology. Presents related ultrasound case studies and trains in the interpretation of the ultrasound examination. Covers implications to the performance of the sonographic procedure including protocols, modalities and specific assessment techniques. Enhances the skill of the sonographer past entry level.. May be repeated up to 6 credit hours.

Diversity (DIV)

DIV 101 - Exploring Diversity in the U.S. (3 Credits)
3 lecture, 3 total contact hours
Focuses on culture and other diversity issues and topics utilizing an interactive personal development format. Students will discuss dimensions of their own culture and cultures of others within the United States. They will have the opportunity to examine discrimination and prejudice between groups and analyze the impact of these power differences on peoples' lives. The experiential nature of this course will give students the opportunity to develop skills necessary to interact effectively in a diverse society.
World Culture and Diversity

Drone (DRO)

DRO 100 - Drone Pilot Ground School (1 Credit)
1 lecture, 1 total contact hours
Provides knowledge about the regulations and procedures governing the legal operation of Small Unmanned Aerial Systems (sUAS) in the United States of America. Course content aligns with knowledge areas in the Federal Aviation Administration's (FAA's) Part 107 airman knowledge test for a Remote Pilot Certificate with a sUAS rating.

DRO 101 - Mastering Drone Flight: Essential Skills and Techniques (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Introduces the fundamentals of flying drones (or Small Uncrewed Aerial Systems, sUAS) with a focus on flight proficiency skills, safety procedures, mission planning best practices, and image acquisition procedures. Fundamental desktop computer skills assumed.

DRO 102 - Drone Data Acquisition and Analysis (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Introduces students to the methods used to capture, process, analyze, and present drone (or Small Uncrewed Aerial Systems, sUAS) data. Includes drone data applications, image and sensor characteristics, mission planning, data acquisition, post processing, and data analysis fundamentals. Fundamental desktop computer skills assumed. Prerequisite: DRO 101 with a grade of C or better.

Early Childhood Education (ECE)

ECE 101 - Introduction to Early Childhood Education (3 Credits)
3 lecture, 3 total contact hours
Provides an overview of early childhood care and education, including the basic values, structure, organization and programming. Examination of the student's personal qualities in relationship to expectations of the field. Directed observation in a variety of programs and settings. Six (6) hours of observation required. (NOTE: The program's health requirements must be completed prior to observation.)
Start Smart
Typically offered: Fall, Spring, Summer

ECE 102 - Child Development (3 Credits)
3 lecture, 3 total contact hours
Provides a study of human development from conception through adolescence. Includes research methods and developmental theories. Addresses all major areas of development (physical, social, emotional and cognitive, language and aesthetic) and the interaction among these areas. Also examines current research and major developmental theoretical points of view, including those of Piaget, Erikson, Vygotsky, Skinner, Gardner and others. Explores child development in the context of gender, family, culture, socio-economics, race, ethnicity, religion and society. Emphasis is on the implication of early childhood professional practice. IAI ECE 912
Typically offered: Fall, Spring, Summer

ECE 111 - Infant/Toddler Programs (3 Credits)
3 lecture, 3 total contact hours
Examines the theories and research (including early intervention) related to infants and toddlers with a focus on methods of care given in home-based and school-based infant programs. Five (5) hours of observation of infants/toddlers and related programs are required.
Typically offered: Fall, Spring

ECE 115 - Principles of Early Childhood Curriculum (3 Credits)
3 lecture, 3 total contact hours
Provides an overview of principles involved in planning, implementing and evaluating developmentally appropriate curriculum. Includes lesson plans, emerging curriculum, scheduling, room arrangement, materials and equipment; individual, small and large group activities; short and long term goals; and teacher's roles and responsibilities in curriculum development. Three (3) hours of observation required. Prerequisite: Prior or concurrent enrollment in ECE 102 with a grade of C or better.
Typically offered: Fall, Spring

ECE 140 - Family Child Care Management (3 Credits)
3 lecture, 3 total contact hours
Provides guidelines and responsibilities in providing care in a Family Child Care setting for infants and young children. Ten (10) hours of observation in a family child care setting are required.

ECE 149 - Topics in Early Childhood Education (1-3 Credits)
1 - 3 lecture, 1 - 3 total contact hours
Studies selected problems or topics in early childhood. The exact content and instructional methodology will vary semester to semester depending on the material to be studied. This course may be repeated up to a maximum of three credit hours.

ECE 209 - Language Development and Activities for the Young Child (3 Credits)
3 lecture, 3 total contact hours
Provides an in-depth knowledge and understanding of language development, the stages involved, the role that adults play and the relationship of language to other aspects of development. Introduces the student to a wide variety of language activities appropriate for young children and develops skills in preparing, presenting and evaluating language activities. Prerequisite: ECE 115.
Typically offered: Fall

ECE 210 - Creative Activities for Young Children (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Examines the theoretical framework for art, creativity, music and movement. Acquaints the student with a variety of creative art materials and methods appropriate for use in programs for young children. Includes firsthand experience with materials and planning an arts program. Stresses the relationship of creative experiences within the curriculum and the role of creative experiences within the early childhood program. Prerequisite: ECE 115.
Typically offered: Fall

ECE 221 - Math and Science for the Young Child (3 Credits)
3 lecture, 3 total contact hours
Introduces the theory and practice related to math and science for young children. Emphasis will be placed on the development and evaluation of developmentally appropriate activities and instructional materials. Prerequisite: ECE 115.
Typically offered: Spring

ECE 226 - Assessment and Guidance (3 Credits)
3 lecture, 3 total contact hours
Understands concepts of appropriate assessment, expected educational outcomes, the teacher's responsibility in assessment and how young children develop and learn. Students will understand how appropriate assessments can measure and evaluate child growth and development and how the use of assessment tools can influence decisions in early childhood education with an emphasis on appropriate guidance techniques and strategies. Four (4) hours of observation are required. Prerequisite: Prior or concurrent enrollment in ECE 102 with a grade of C or better.
Typically offered: Fall, Spring

ECE 250 - Health, Nutrition and Safety (3 Credits)
3 lecture, 3 total contact hours
Focuses on personal health of the individual, including nutrition and health and safety issues, with emphasis on meeting health needs for children in group settings. A healthy lifestyle, preventive health and community health are examined. One (1) hour of observation is required.
Typically offered: Fall, Spring, Summer

ECE 252 - Child-Family-Community (3 Credits)
3 lecture, 3 total contact hours
Concentrates on teacher's role in working with children within the context of family and community. Stresses effective communication, diversity, professionalism and social policy. Includes an in-depth study of community resources. Two (2) hours of observation are required. IAI ECE 915
Typically offered: Fall, Spring

ECE 253 - Administration of Early Childhood Programs (3 Credits)
3 lecture, 3 total contact hours
Provides guidelines for the establishment and operation of a child development center. Emphasizes the director's role in programming, school policies, budgeting, record keeping, licensing, municipal codes, insurance, staff development, evaluation procedures, parent communication and community resources. Prerequisite: Completion of 15 credit hours including ECE 102 and ECE 115 with grades of C or better, or consent of program coordinator.
Typically offered: Fall

ECE 254 - Interpersonal Relationships in Early Childhood Education (1 Credit)
1 lecture, 1 total contact hours
Explores personal experiences within the work environment, impact of sex-roles, organizational policies and professional standards. Emphasizes team building and the development of effective interpersonal communication skills.
Typically offered: Spring

ECE 291 - Early Childhood Practicum I (3 Credits)
1 lecture, 10 clinical/other, 11 total contact hours
Emphasizes the practical application of principles and theories in early childhood education within a supervised setting, while working with young children. The student will be supervised by a qualified professional for 60 documented hours at an approved site and attend weekly seminars. (NOTE: The program's health requirements, background check and CPR Basic Rescuer certification must be completed prior to placement in practicum.) Prerequisite: ECE 101, ECE 102, ECE 115, ECE 209, ECE 226 and ENG 101 with grades of C or better, or consent of instructor.
Typically offered: Fall, Spring, Summer

ECE 292 - Early Childhood Practicum II (3 Credits)
1 lecture, 10 clinical/other, 11 total contact hours
Emphasizes the practical application of early childhood education principles and theories in a supervisory capacity, while working with young children aged 0-3 years. The student will be supervised by a qualified professional for 60 documented hours at an approved site and attend a weekly seminar. (NOTE: The program's health requirements, background check and CPR Basic Rescuer certification must be completed prior to placement in practicum.) Prerequisite: ECE 111 and ECE 291 with grades of C or better and consent of instructor.
Typically offered: Fall, Spring, Summer

ECE 293 - Early Childhood Director Practicum (3 Credits)
1 lecture, 10 clinical/other, 11 total contact hours
Emphasizes the practical application of early childhood education principles and theories in a supervisory capacity, while working with a director, staff, parents, and young children. The student will be supervised by a qualified director for 300 documented hours as mandated by the State of Illinois Director Credentials. Prerequisite: ECE 253, MGT 160 and MKT245 AND consent of coordinator.
Typically offered: Fall

Earth Science (ESC)

ESC 100 - Rocks and Minerals Survey (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides a survey of earth materials, their origins, chemistry, structure, identification, classification and uses, with an emphasis on minerals and rocks used in everyday life, and their impact on health and the environment. Knowledge of high school algebra is assumed. IAI P1 907
Typically offered: Spring

ESC 101 - Earth Science Survey (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Designed to give the non-science major an understanding and appreciation of basic concepts in geology, atmospheric science and astronomy. IAI P9 900 Prerequisite: Placement into college-level mathematics without support. https://www.harpercollege.edu/testing/mathplacement.php
Typically offered: Fall

ESC 110 - Exploring the Earth and Universe (4 Credits)
3 lecture, 2 lab, 5 total contact hours
Examines topics in geology including rocks, minerals, plate tectonics and geologic time; meteorology including atmospheric science, severe weather and atmospheric dynamics; astronomy including the origins of modern astronomy, introduction to planetary science and cosmology.. IAI P1 905L Prerequisite: Placement into college-level mathematics without support. https://www.harpercollege.edu/testing/mathplacement.php
Typically offered: Fall

ESC 111 - Physical Geology (4 Credits)
3 lecture, 2 lab, 5 total contact hours
Provides an introduction to the earth's inerals, rocks and natural resources and the processes which have shaped the Earth's surface such as sedimentation, mountain building, and action of water, wind, ice and downslope movements. Covers Earth's fundamental structure and the behavior of Earth materials. Focuses on the roles of volcanism, earthquakes, sea-floor spreading and paleomagnetism in explaining plate tectonic theory. Knowledge of high school algebra is assumed. IAI P1 907L
Typically offered: Fall, Spring, Summer

ESC 112 - Dinosaurs, Fossils and Planet Earth (4 Credits)
3 lecture, 2 lab, 5 total contact hours
Includes basic principles of historical geology, rocks and minerals, plate tectonics, geologic time, reading the fossil record, the evolution of Earth through time, evolution of life through time, and the geologic story of the North American continent. Knowledge of high school algebra is assumed. IAI P1 907L
Typically offered: Fall, Spring, Summer

ESC 113 - Environmental Geology (4 Credits)
3 lecture, 2 lab, 5 total contact hours
Examines the relationships between humans and the geological environment. Includes the study of use and abuse of natural resources such as water, minerals, and energy; an overview of natural hazards; an examination of urban geology and land management issues and the relationship between community status and land use; an analysis of pollution and waste disposal; and an introduction to climate change and global warming. Emphasis on issues and practices in the Chicagoland area. Knowledge of high school algebra is assumed. IAI P1 908L
Typically offered: Fall, Spring

ESC 121 - Introduction to Meteorology (4 Credits)
3 lecture, 2 lab, 5 total contact hours
Gives the non-science major an understanding and appreciation of the composition and structure of the atmosphere, thermodynamic processes, forces and related small- and large-scale motions, air masses, fronts, tropical cyclones, solar and terrestrial radiation, severe weather, basic weather forecasting techniques, and general circulations that affect the atmosphere. IAI P1 905L Prerequisite: Placement into college-level mathematics without support. https://www.harpercollege.edu/testing/mathplacement.php
Typically offered: Spring

Economics (ECO)

ECO 115 - Consumer Economics (3 Credits)
3 lecture, 3 total contact hours
Introduces the concepts of personal financial planning within the current economic environment. Emphasizes topics such as basic macroeconomic theory, obtaining credit, purchasing insurance, investment alternatives, basic real estate finance and tax planning.
Typically offered: Fall, Spring

ECO 200 - Introduction to Economics (3 Credits)
3 lecture, 3 total contact hours
Covers descriptive rather than a quantitative approach to the study of economics. Major topics cover economic history, the elements of macroeconomics, microeconomics and a comparative look at other economic systems. Specifically designed for students in career-vocational curricula. IAI S3 900
World Culture and Diversity
Typically offered: Fall, Spring, Summer

ECO 211 - Microeconomics (3 Credits)
3 lecture, 3 total contact hours
Covers economic problems faced by the individual and the firm. Examination of market structures, price and output determination. The microeconomic approach. IAI S3 902
Typically offered: Fall, Spring, Summer

ECO 212 - Macroeconomics (3 Credits)
3 lecture, 3 total contact hours
Covers economic problems faced by our society. Examination of resource allocation, national income and economic development, from a macroeconomic approach. IAI S3 901
Typically offered: Fall, Spring, Summer

Education (EDU)

EDU 201 - Introduction to Education (3 Credits)
3 lecture, 3 total contact hours
Provides an introduction to teaching as a profession in the American education system. Offers a variety of perspectives on education including historical, philosophical, social, legal, and ethical issues in a diverse society. Includes organizational structure and school governance. There is a mandatory 15 hour clinical component in this course, therefore, the student must pass a criminal background check for successful completion of this course
Start Smart
Typically offered: Fall, Spring

EDU 202 - Pre-Student Teaching Clinical Experience (1 Credit)
2 lab, 2 total contact hours
Provides an in-depth study of classroom practices in the subject and age category that each student is training to teach. Students will complete the clinical component of this course by observing classrooms in their area of interest and will attend a seminar once weekly to discuss their experience, therefore, the student must pass a criminal background check for successful completion of this course.
Typically offered: Spring

EDU 211 - Educational Psychology (3 Credits)
3 lecture, 3 total contact hours
Examines psychological principles underlying educational practice. Theories concerning cognitive and psychological development, human learning, and motivation are studied with emphasis on application for instruction, including assessment. Emphasis will also be placed on learner-centered instruction and diversity. There is a clinical component in this course, therefore, the student must pass a criminal background check for successful completion of this course. Prerequisite: PSY 101 or consent of instructor.
Typically offered: Fall, Spring, Summer

EDU 219 - Students with Disabilities in School (3 Credits)
3 lecture, 3 total contact hours
Presents the historical, philosophical and legal foundations of special education as well as an overview of the diverse characteristics of individuals with exceptional cognitive, physical, social and emotnal needs, including, but not limited to, children identified as learning disabled. Covers identification, intervention strategies, cross-categorical methods of instruction and programs to meet their needs, including, but not limited to, assistive technologies, Positive Behavioral Interventions and Supports (PBIS), behavioral interventions, and Universal Design. Studies applicable state and federal laws and requirements, including Individuals with Disabilities Education Act (IDEA), American with Disabilities Act (ADA), Individualized Family Service Plan (IFSP), Individual Education Plan (IEP), Response to Intervention (RTI) and inclusive programming. This course addresses the coursework identified in the Illinoios Administrative Code 25, Section 25:25 for professional educator licensure. There is a mandatory 15 hour clinical component in this course; therefore, the student must pass a criminal background check for successful completion of this course. IAI ECE 913
Typically offered: Fall, Spring, Summer

EDU 220 - Diversity in Schools and Society (3 Credits)
3 lecture, 3 total contact hours
Provides an introduction to diversity issues in schools and society today. Examines how schooling is shaped by the social contexts in which it occurs, particulary in multicultural and global contexts. Includes examination of both social and global perspectives.
World Culture and Diversity
Typically offered: Fall, Spring, Summer

EDU 230 - Introduction to Language Arts in Elementary/Middle School Teaching (3 Credits)
3 lecture, 3 total contact hours
Examines the foundations of effective practices in supporting student progress toward both fluent and strategic reading and writing. Provides an introduction to the theory and practices of language arts education for students who are interested in becoming teachers. Focuses on construction of meaning from print, the relationship between reading and writing, and the principles of classroom assessment. Provides an introduction to the Illinois Learning Standards for English Language Arts.
Typically offered: Spring

EDU 250 - Introduction to Technology in Education (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Introduces educators to the knowledge and skills required to demonstrate their proficiency in the current technology standards. The course focuses on both knowledge and performance, and includes hands-on technology activities. Prerequisite: Keyboarding, basic skill word processing, spreadsheet, and database programs, or consent of instructor.
Typically offered: Fall

EDU 290 - Topics in Education (0.5-3 Credits)
.5 - 3 lecture, .5 - 3 total contact hours
Studies selected problems or topics in education. The exact content and instructional method will vary from semester to semester. A syllabus or course outline containing additional information will be available with pre-registration materials each time that the course is offered. This course maybe repeated to a maximum of three credit hours.

Electronics Engineering Tech (ELT)

ELT 101 - DC Network Analysis (4 Credits)
3 lecture, 3 lab, 6 total contact hours
Studies direct current (DC) resistive networks. Definitions, symbols and notations for electrical quantities are taught. Circuit properties and their applications to significant circuit configurations are examined. Knowledge of high school algebra assumed.
Typically offered: Fall

ELT 102 - AC Network Analysis (4 Credits)
3 lecture, 3 lab, 6 total contact hours
Examines steady state alternating current (AC), resistor-capacitor (RC) and resistor-inductor (RL) circuits. Also examines RC and RL single time constant circuits. Single phase and polyphase AC networks are also studied. Prerequisite: ELT 101 and MTH 103 with grades of C or better, or consent of instructor.
Typically offered: Spring

ELT 110 - Introductory Electronics (4 Credits)
3 lecture, 3 lab, 6 total contact hours
Introduces fundamentals of electricity and magnetism. Covers basic electrical laws and principles. Presents electrical quantities, units, symbols and notation. Examines foundational electronic materials and components. Presents elementary DC (direct current) and AC (alternating current) network analysis, key semiconductor devices, and simple analog and digital circuits. Also covers electrical safety considerations, laboratory instrumentation and test and measurement techniques. Start Smart
Typically offered: Fall, Spring, Summer

ELT 111 - Semiconductor Devices and Circuits (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Examines basic semiconductor component families and characteristics. Fundamentals of proper circuit operation and typical applications are further examined. Prerequisite: ELT 110 with a grade of C or better, or consent of instructor.
Typically offered: Spring

ELT 120 - Introductory Industrial Electronics Maintenance (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Introduces students to the fundamentals of industrial electronics maintenance. Provides an overview of the various technologies encountered in the field as they relate to industrial electronic control of buildings and facilities. This includes basic electrical and electromechanical components and machinery, motors and controls, electrical and electronic interfaces, and electronic controllers. Also covers fluid power and piping systems. Emphasis is placed on safety, installation and preventative maintenance. Use of tools, test instrumentation and the importance of record keeping will be discussed.
Typically offered: Spring

ELT 135 - Optics and Sensors (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Investigates sensor operation and application for a variety of functions: tactile, photo, fiber-optic, magnetic, thermal, sonic, pressure and vision systems.
Typically offered: Fall

ELT 140 - Introduction to Programmable Logic Controllers (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Examines the procedures and mechanisms by which programmable logic controller functions are used. Programming in ladder logic and controller code focuses on the direct application of a variety of input and output devices. Hardware, programming, peripherals and accessories are emphasized.
Typically offered: Fall, Spring

ELT 142 - Residential Wiring (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Introduces students to wiring topics as they relate to the residential electrical service. A safety review followed by terminology, principles, and test and measurement equipment use associated with residential alternating current (AC) power are examined. Emphasis is placed on the practical application, operation, installation and maintenance of low voltage control systems and single-phase AC power equipment and systems. Select portions of the National Electric Code are studied.
Typically offered: Fall, Spring, Summer

ELT 143 - Commercial Wiring (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Introduces students to advanced wiring topics as they relate to the commercial electrical service. A safety review followed by terminology, principles, and test and measurement equipment use associated with commercial alternating current (AC) power are examined. Emphasis is placed on the practical application, operation, installation and maintenance of low voltage control systems and three-phase AC power equipment and systems. Select portions of the National Electric Code are studied.
Typically offered: Fall, Spring

ELT 144 - AC and DC Motors (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Introduces students to fractional horsepower motors for residential and commercial applications. A safety review followed by terminology, principles, and test measurement equipment use associated with motors and motor controls are examined. Emphasis is placed on the practical application, operation, installation and maintenance of direct current (DC) motors and controls, and single three-phase alternating current (AC) motors and controls.
Typically offered: Spring

ELT 145 - Variable Frequency Drives (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Introduces students to variable frequency drives (VFD's) as they pertain to residential and commercial motor control applications. A safety review followed by terminology, principles, test and measurement equipment use associated with VFD's and typical applications are examined. Emphasis is placed on the practical application, operation, installation and maintenance of VFD's.
Typically offered: Fall

ELT 203 - Digital Electronics (4 Credits)
3 lecture, 3 lab, 6 total contact hours
Examines digital logic circuitry from the underlying structure of Field Effect Transistors (FETs) through how these devices are built into complex integrated (ICs). Includes combinational and sequential logic circuits, binary and hexadecimal number systems, error detection and correction, Boolean algebra, Karnaugh maps, counters, state machines, semiconductor memories, and programmable devices with special emphasis on microcontrollers. Prerequisite: ELT 110 with a grade of C or better.
Typically offered: Fall

ELT 207 - Communications Systems (4 Credits)
3 lecture, 3 lab, 6 total contact hours
Introduces students to communications systems. The historical, technical and commercialization aspects of key technologies and inventions from the onset of early communications equipment to contemporary telecommunications systems are discussed. Covers systems, equipment, and radiating systems and radiation. Topical areas in these segments include wireline and wireless systems, modulation and demodulation, receivers, transmitters and transceivers, transmission lines, antennas, matching networks and wave propagation. Emphasizes system applications operation and analysis. Prerequisite: ELT 110 with a grade of C or better, or consent of instructor.
Typically offered: Summer

ELT 215 - Industrial Control Systems (4 Credits)
3 lecture, 3 lab, 6 total contact hours
Introduces students to industrial control systems. Covers fluid power fundamentals, and pneumatic and hydraulic circuit theory. Examines the integration of optics, sensors, and various electronic control systems including programmable logic controller (PLC) and personal computer (PC) controllers. Infrared (IR) emitters and detectors, and laser systems are also examined. Introduces the application and control of automated robotic systems. The course culminates with a capstone team project involving the development, design, construction, presentation and ultimate demonstration of a fully operational automated industrial control system. Prerequisite: ELT 110 and ELT 140 with grades of C or better, or consent of instructor.
Typically offered: Spring

ELT 218 - Embedded Microcontroller/Microprocessor Systems (4 Credits)
3 lecture, 3 lab, 6 total contact hours
Examines the basics of microcontroller/microprocessor systems. Includes digital and analog input/output/ (I/O), serial buses, memories/ caches, and interfacing to peripherals including sensors, displays, servosand motors. An example of such a system is Arduino hardware and the writing of Arduino C code that are covered in detail. Prerequisite: ELT 203 with a grade of C or better, or consent of instructor.
Typically offered: Spring

ELT 240 - Advanced Programmable Logic Controllers (4 Credits)
3 lecture, 3 lab, 6 total contact hours
Emphasizes advanced programmable logic controller (PLC) applications and system integration. Discusses an overview of PLCs coupled with safety and industry-best practices are discussed. Reviews sensors, PLC ladder logic and PLC functionality and examines the Human Machine Interface (HMI). Explores applications involving pneumatic and servo controlled robotics, 2- and 3-dimensional (2D and 3D) vision systems, and industrial and home automation. Covers advanced PLC communications protocol, wireless interface/system considerations and Internet of Things (IoT) connectivity. Prerequisite: ELT 110 and ELT 140 with grades of C or better, or consent of instructor.
Typically offered: Spring

ELT 281 - Topics in Electronics Engineering Technology (1-4 Credits)
1 - 4 lecture, 1 - 4 total contact hours
Examines selected problems or topics in electronics engineering technology. The specific course content and instructional methodology will vary from semester to semester depending on the material presented. A syllabus containing specific topics will be available with pre-registration materials each time the course is offered. This course may be repeated to a maximum of four credit hours. Prerequisite: Consent of instructor.

Emergency and Disaster Mgt (EMG)

EMG 101 - Introduction to Emergency Management (3 Credits)
3 lecture, 3 total contact hours
Provides a foundation overview of emergency management. Students will examine the need for emergency management, processes and elements involved in disaster mitigation, preparedness, response and recovery. Start Smart
Typically offered: Fall, Spring

EMG 103 - Leadership, Influence, Decision Making and Problem Solving (3 Credits)
3 lecture, 3 total contact hours
Presents differences in personal values and interpersonal influence styles, and to apply situational leadership behaviors in emergency management. The course content reinforces existing management skills required for building an emergency management system.
Typically offered: Spring

EMG 107 - Incident Management Systems (3 Credits)
3 lecture, 3 total contact hours
Introduces students to the Emergency Management System and elements involved which include incident command, unified command, and incident action planning. Emergency management systems which will be examined will include the Incident Command System (ICS) and the National Incident Management System (NIMS). Managing post-incident critiques and evaluations also will be explored.
Typically offered: Fall, Spring

EMG 131 - Public Safety Dispatcher I (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Introduces students to the field of emergency services dispatching and provides an overview of its components and responsibilities. As such, it will provide the foundation for statewide competency as a public safety telecommunicator as outlined by the Illinois Law Enforcement Training and Standards Board (ILETSB) in its Public Safety Telecommunicator Training and Standards document, Basic Level Training Curriculum (September 1996).
Typically offered: Fall, Spring

EMG 150 - Public Information, Education, and Community Relations (3 Credits)
3 lecture, 3 total contact hours
Provides students with the necessary skills and knowledge in public information, education, community relations, communications and involved elements including writing, public speaking, and understanding the media. The course content will also introduce concepts of volunteer program utilization and maintenance.
Typically offered: Fall, Spring

EMG 151 - Emergency Management Policy and Planning (3 Credits)
3 lecture, 3 total contact hours
Provides students with the skills to develop plans and policy as an Emergency Management Specialist. Examines the concepts of writing an emergency operations plan and the elements necessary for inclusion in the plan (all-risk hazard planning). Prerequisite: EMG 103 with a grade of C or better.
Typically offered: Spring

EMG 153 - Hazard Analysis and Mitigation (3 Credits)
3 lecture, 3 total contact hours
Introduces students to various means of hazard analysis used to prioritize response activities, allocate resources, and specifically request other resources to save and sustain lives. Students will examine the need for mitigation programs and discuss the appropriate methods to implement various mitigation programs. Prerequisite: EMG 101 with a grade of C or better.
Typically offered: Fall, Spring

EMG 155 - Social Dimensions of Disaster (3 Credits)
3 lecture, 3 total contact hours
Introduces students to the various aspects of sociology and recovery from disasters. Topics will include aspects of a disaster such as behavioral and organizational responses to disasters as well as the impact of the media. Students will study the concept of building a disaster-resistant community. This course will also cover topics related to terrorism such as a terrorist sociological analysis, the dimension of terrorism. Prerequisite: EMG 101 with a grade of C or better.
Typically offered: Fall

EMG 201 - International Disaster Management (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Examines globally how disasters are on the increase, impacting communities and nations with grave social and economic consequences. Studies the internatioonal response to disasters which is convoluted, at times chaotic, and always complex. Students will learn about shifting socio-economic situations, unplanned urbanization, environmental degradation, climate variability and change, geological hazards, and the struggle for scarce natural resources. Because disasters increasingly impact the global economy and the sustainable development of developing countries, the student will learn how to apply international emergency disaster management. Prerequisite: EMG 101 with a grade of C or better.
Typically offered: Fall

EMG 205 - Crisis Exercise Design and Evaluation (3 Credits)
3 lecture, 3 total contact hours
Introduces students to different aspects of crisis exercise design and evaluation. Students will identify specific needs to adhere to federal or state directives pertaining to required exercises, to utilize proper training strategies and to identify performance gaps. The course will include exercise design and group dynamics, conducting an exercise, analyzing the results, conducting a critique and implementation of corrective actions and recommendations. Prerequisite: EMG 151 and EMG 153 with grades of C or better.
Typically offered: Spring

EMG 231 - Public Safety Dispatcher II (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Builds upon the foundation laid through EMG 131 and provides student with specific knowledge required to professionally handle emergency as well as non-emergency calls for service in the public safety environment. At the conclusion of this course, students will possess a basic understanding of the role, responsibility and equipment utilized by telecommunicators to accomplish their mission. Prerequisite: EMG 131 with a grade of C or better.
Typically offered: Fall, Spring

EMG 251 - Select Problems in Emergency Management (3 Credits)
3 lecture, 3 total contact hours
Exposes students to various aspects of select problems in emergency management including environmental, funding and political issues. Students will learn about local governments and jurisdictions, the political process, support agencies, crisis management for business and industry and contingency planning. This course will also address long-term incidents and professional development. Prerequisite: EMG 101 with a grade of C or better.

EMG 253 - Ideologies of Terrorism (3 Credits)
3 lecture, 3 total contact hours
Examines the various analytical approaches to the study of terrorism. Students will be exposed to the ideologies and composition of known terrorist groups, review terrorist tactics and examine police and governmental responses to reduce or eliminate the incidence of terrorism.
Typically offered: Fall, Spring

EMG 299 - Emergency Management Systems Practicum (1 Credit)
5 clinical/other, 5 total contact hours
Provides practical emergency management experience in a supervised professional setting focused on the integration of theory and practice. Actual experience in various phases of emergency management will be provided through mutually agreed upon cooperative projects with government and industry. Prerequisite: Prior or concurrent enrollment in EMG 205, EMG 251 and EMG 253 with grades of C or better.
Typically offered: Fall, Spring, Summer

Emergency Medical Services (EMS)

EMS 111 - Emergency Medical Technician Preparatory (3 Credits)
2 lecture, 2 lab, 4 total contact hours
The entire Emergency Medical Technician (EMT) Program of Instruction is divided into three courses that must all be passed in sequence (EMS 111, 112 and 113) as well as hospital and field clinical experiences and a cumulative final written exam. EMS 111 is designed to introduce entry-level knowledge and skills required to become an EMT and provides the foundations of EMT practice upon which all other instruction is based. EMS 111 must be passed to progress to EMS 112. Content and objectives are mapped to the National Emergency medical Services (EMS) Education Standards. This is a limited enrollment program. Prerequisite: You must be at least 18 years old and provide a high school transcript or GED equivalency to register for this course. A minimum GPA of 2.0 is needed for enrolled/previously enrolled Harper students. Placement into ENG 096 or better is also required. https://www.harpercollege.edu/testing/english-placement-grid.php
Typically offered: Fall, Spring

EMS 112 - Emergency Medical Technician: Medical Emergencies (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides comprehensive coverage of acute and chronic respiratory disorders, acute and chronic cardiovascular disorders, cardiac arrest management, anaphylactic emergencies, stroke, seizure and altered mental status, shock, acute diabetic emergencies, abdominal, renal, genitourinary and gynecologic emergencies and environmental emergencies including diving and drowning emergencies. The module exam given at the conclusion of the section must be passed with a minimum score of 80% to progress to EMS 113. The entire Emergency Medical Technician (EMT) Program of Instruction is divided into three courses that must all be passed in sequence (EMS 111, 112 and 113) as well as hospital and field clinical experiences and a cumulative final written exam. Prerequisite: EMS 111 with a grade of C or better.
Typically offered: Fall, Spring

EMS 113 - Emergency Medical Technician: Trauma Emergencies (3 Credits)
2 lecture, 2 lab, 4 total contact hours
presents a wide scope of trauma emergencies, special patient populations, and those with physical challenges, multiple patient incidents and the incident management system, hazardous materials awareness, EMS response to terrorist incidents and ambulance operations. Content and objectives are mapped to the National Emergency Medical Services (EMS) Education Standards. The entire Emergency Medical Technician (EMT) Program of Instruction is divided into three courses that must all be passed in sequence (EMS 111, 112 and 113) as well as hospital and field clinical experiences and a cumulative final written exam. Prerequisite: EMS 112 with a grade of C or better.
Typically offered: Fall, Spring

EMS 210 - Paramedic Preparatory (10 Credits)
9 lecture, 3 lab, 12 total contact hours
Designed to expand upon entry-level knowledge and skills acquired in an Emergency Medical Technician (EMT), Advanced Emergency Medical Technician (AEMT), or Emergency Medical Technician Intermediate (EMT-I) course. EMS 210 provides the foundations of paramedic (PM) practice upon which all other instruction is based and must be passed to continue in the program. Content and objectives are mapped to the National EMS Education Standards. Prerequisite: (1) Unencumbered Emergency Medical Technician (EMT), Advanced EMT (AEMT), or EMT-Intermediate (EMT-I) license with practice privileges in Illinois and admission into the Emergency Medical Services degree program or the Paramedic Certificate program; (2) valid and current CPR for Healthcare Providers card; and (3) field internship acceptance by a NWC EMS Agency.
Typically offered: Fall

EMS 211 - Paramedic Medical Emergencies I (5 Credits)
5 lecture, 1 lab, 6 total contact hours
Provides comprehensive coverage of acute and chronic respiratory disorders, acute and chronic cardiovascular disorders, cardiac arrest management, and electrocardiography (ECG) interpretation. This course must be passed to continue in the program. Content and objectives are mapped to the National Emergency Medical Services (EMS) Education Standards. Prerequisite: EMS 210 with a grade of C or better. Corequisite: EMS 217.
Typically offered: Fall

EMS 212 - Paramedic Medical Emergencies II (7 Credits)
7 lecture, 1 lab, 8 total contact hours
Presents a wide scope of obstetrics (OB), pediatric, geriatric and medical emergencies. This course must be passed to continue in the program. Content and objectives are mapped to the National Emergency Medical Services (EMS) Education Standards. Prerequisite: EMS 211 with a grade of C or better.
Typically offered: Spring

EMS 213 - Paramedic Trauma/Special Populations/EMS Operations (6 Credits)
6 lecture, 1 lab, 7 total contact hours
Presents a wide scope of trauma emergencies, special patient populations, and those with physical challenges. Concludes with field experts presenting the EMS response to multiple patient incidents and the incident management system, hazardous materials awareness, active shooter incidents/weapon safety, and ambulance operations. This course must be passed to continue in the program. Content and objectives are mapped to the National EMS Education Standards. Prerequisite: EMS 212 with a grade of C or better. Corequisite: EMS 214.
Typically offered: Spring

EMS 215 - Paramedic Field Internship (4 Credits)
20 clinical/other, 20 total contact hours
Integrates the theoretical concepts and practical skills acquired during EMS 210, EMS 211, EMS 212, EMS 213 and EMS 214. Requires students to use higher order thinking and critical reasoning to safely care for patients in the out of hospital environment under the direct supervision of an approved paramedic preceptor. The internship is divided into two phases of ascending mastery and accountability with each having a minimum number of patient care contacts and competencies. A full description of the objectives and expectations is contained in the NWC Paramedic Student Handbook and on the internship forms. This course is graded using a pass/fail grade mode. (NOTE: This course has an additional fee of $1500 to cover the cost of field preceptors.) Prerequisite: EMS 213 with a grade of C or better and EMS 217 with a grade of P.
Typically offered: Spring

EMS 216 - Paramedic Seminar (3 Credits)
3 lecture, 3 total contact hours
Provides weekly seminars during the last half of the Field Internship offering an opportunity for intellectual engagement and allows students to integrate and apply didactic concepts presented during the course to actual EMS practice. It concludes with the comprehensive summative final written and practical exams. During the first four weeks, each class is offered twice (Wednesday and Thursday) from 9:00 am to 5:00 pm. Students may select the day they attend after consultation with the Provider Agency with which they are completing the Field Internship. The last week is back to full time and students must attend each day. Students must be prepared to present cases based on a disease or trauma diagnosis identified in advance by the instructor. Prerequisite: EMS 213 with a grade of C or better and, EMS 217 and EMS 218 with grades of P.
Typically offered: Summer

EMS 217 - Paramedic: Hospital Internship I (2 Credits)
0 lecture, 10 lab, 10 total contact hours
Provides a minimum of 200 clinical hours in a variety of experiences and situations as specified by the EMS Medical Director and endorsed by the Advisory Committee. Each student shall have access to adequate numbers of patients, proportionally distributed by illness, injury, gender, age and common problems encountered in the delivery of emergency care. While in the clinical units, students apply instructional theory into practice to deliver safe, entry-level EMS care in a controlled environment under the direct supervision of a unit-assigned preceptor. Rotations include the following areas: adult and pediatric emergency departments, critical care units, labor and delivery, operation room and mental health unit. This course is graded using a pass/fail grade mode. (formerly EMS 214) Prerequisite: EMS 210 with a grade of C or better, successful completion of health screening, immunizaton requirements, background check and purchase of FISDAP software licensing.
Typically offered: Fall

EMS 218 - Paramedic: Hospital Internship II (2 Credits)
0 lecture, 10 lab, 10 total contact hours
Provides a minimum of 56 clinical hours in a variety of experiences and situations as specified by the EMS Medical Director and endorsed by the Advisory Committee. Each student shall have access to adequate numbers of patients, proportonally distributed by illness, injury, gender, age and ocmmon problems encountered i the delivery of emergency care. While in the clinical units, students apply instructional theory into practice to deliver safe, entry-level EMS care in a controlled environment under the direct supervision of a unit-assigned preceptor. Rotations include the following areas: adult and pediatric emergency departments, cirtical care units, labor and delivery, operation, mental helath unit, skilled nursing facility or elder care environment, and one elective. This course is graded using a pass/fail grade mode. Prerequisite: EMS 217 with a grade of P, successful completion of health screening, immunization requirements, background check, and purchase of FISDAP software license.
Typically offered: Spring

Engineering (EGR)

EGR 100 - Introduction to Engineering (1 Credit)
1 lecture, 1 lab, 2 total contact hours
Introduces engineering techniques, methods and history. Explores career options and requirements for various engineering fields. Covers interrelationships within and between engineering, technology and science to allow differentiation between various career choices. Start Smart
Typically offered: Fall, Spring

EGR 105 - Problem-Solving with Matlab and Excel (1 Credit)
1 lecture, 1 lab, 2 total contact hours
Introduces students to techniques and computer applications for solving problems in engineering and science. Emphasis is on Microsoft Excel and Matlab, software packages required for many junior- and senior-level engineering courses and in professional practice. Topics include problem formulation, data plotting, roots of equations, systems of linear equations, numerical integration, and optimization. laboratory exercises will allow students to apply these computer tools to solve a variety of practical problems in engineering and science. Prerequisite MTH 140 with a grade of C or better, or other math placement options into MTH 200 or higher. https://www.harpercollege.edu/testing/mathplacement.php
Typically offered: Fall

EGR 110 - Introduction to Electrical and Computer Engineering (4 Credits)
3 lecture, 3 lab, 6 total contact hours
Provides an integrated introduction to selected fundamental concepts and principles in electrical and computer engineering including circuits, electromagnets, communications, electronics, controls and computing. Laboratory experiments focus on practical applications which will be applied to a design product. Prerequisite: Prior or concurrent enrollment in MTH 200 (Calculus I, IAI M1 900-1, IAI MTH 901) or higher with a grade of C or better.
Typically offered: Spring

EGR 120 - Engineering Graphics I (CAD) (4 Credits)
2 lecture, 5 lab, 7 total contact hours
Introduces engineering graphics and design. Includes drafting, dimensioning, tolerancing, fasteners and descriptive geometry. Engineering graphics topics include multi-view orthographic representations, principal auxiliary views, section view and production drawings. Laboratory work is supported by three-dimensional CAD utilizing solid modeling techniques. IAI EGR 941 Prerequisite: MTH 070 (or equivalent) with a grade of C or better, or other placement/ Geometry options. Click here for Math placement information: https://www.harpercollege.edu/testing/mathplacement.php
Typically offered: Fall, Spring, Summer

EGR 210 - Analytical Mechanics - Statics (3 Credits)
3 lecture, 1 lab, 4 total contact hours
Emphasis analysis of force systems using vectors. Topics include particle statics, general principles and force vectors, rigid body equilibrium, moments of inertia, distributed forces and centroids, analysis of structures, virtual work and friction. IAI EGR 942 Prerequisite: MTH 200 and PHY 201 with grades of C or better.
Typically offered: Fall, Spring, Summer

EGR 211 - Analytical Mechanics - Dynamics (3 Credits)
3 lecture, 1 lab, 4 total contact hours
Emphasis dynamic analysis of rigid bodies. Topics include particle kinematics (rectilinear and curvilinear), Newton's laws, energy, work and momentum methods, planar dynamics and rigid bodies, rigid body kinematics, impulse and momentum, and vibrations. IAI EGR 943 Prerequisite: EGR 210 and PHY 201 with grades of C or better.
Typically offered: Spring

EGR 212 - Mechanics of Solids (3 Credits)
3 lecture, 1 lab, 4 total contact hours
Covers elastic and inelastic relationships involving deformable bodies. Topics include concepts of stress and strain, material properties (elastic and plastic), torsion, shear stresses and deformations, thermal stresses, thin-walled pressure vessels, pure bending, stresses and strains, transverse loading of beams, shear stress and combined loading, transformation of stress and strain (Mohr's Circle), design of beams and shafts for strength, sheer and moments diagrams, deflection of beams, energy methods, and columns. IAI EGR 945 Prerequisite: EGR 210 with a grade of C or better.
Typically offered: Spring

EGR 240 - Thermodynamics (3 Credits)
3 lecture, 1 lab, 4 total contact hours
Introduces classical thermodynamics. Topics include basic concepts and definitions, the zeroth law of thermodynamics, the first and second laws of thermodynamics, ideal and real gas behaviors, control-volume energy analysis, entropy, non-reactive ideal gas mixtures and psychrometrics and cycles. Prerequisite: MTH 202 with a grade of C or better.
Typically offered: Spring

EGR 265 - Circuit Analysis (4 Credits)
3 lecture, 3 lab, 6 total contact hours
Introduces analysis of electric circuits, electrical components, and networks. Topics include concepts of electricity and magnetism, circuit variables (units, voltage, inductance, power and energy), circuit elements (R, L, C and operational amplifiers), simple resistive circuits, circuit analysis (node-voltage, mesh-current, equivalents and superposition), transient analysis, and sinusoidal steady state (analysis and power). Introduces standard electrical instruments and measurement techniques. Covers circuit response, elementary filter response and resonance measurements. Includes basic measurements of transistors and operational amplifiers. IAI EGR 931L Prerequisite: MTH 202 (Calculus with Analytic Geometry III) and PHY 202 (General Physics II) with grades of C or better.
Typically offered: Summer

EGR 295 - Independent Study in Engineering (1-4 Credits)
1 lecture, 0 - 6 lab, 1 - 7 total contact hours
Provides a project-based learning experience under the supervision of a faculty member. Designed to permit the student to pursue a course of study not typically available under traditional course structure. The student will contract with the appropriate faculty member for the objectives to be accomplished in the course. May be repeated up to a maximum of four credit hours. Prerequisite: EGR 100 with a grade of C or better and consent of the instructor.
Typically offered: Spring

English (ENG)

ENG 094 - Academic Reading and Writing Skills Development (4 Credits)
3 lecture, 2 lab, 5 total contact hours
Develops skills in critical reading comprehension and in writing standard effective English through the study of college-level written texts, writing process, and response writing. Activities include the analytical reading of essays, the critical engagement of reading through writing, the drafting and writing of essays, and the developing of editing skills. This course does not meet the General Education requirements for the A.A. and A.S. degrees. Prerequisite: Writing Diagnostic Score of "2."
Typically offered: Fall, Spring, Summer

ENG 095 - English Composition Supplement (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Provides intensive instruction, workshopping, and programming that supports students' development as writers. This course is intended for students whose writing placement indicates the need for additional instructional support for success in college-level writing. Students are required to register for both ENG 095 and ENG 101 during the same semester. Prerequisite: ENG 094 with a C or better or 3.5 on the English Writing Placement Exam. Corequisite: ENG 101.
Typically offered: Fall, Spring, Summer

ENG 096 - Composition (4 Credits)
4 lecture, 4 total contact hours
Develops skills in critical reading comprehension and in writing standard effective English through the study of college-level written texts, writing process, and response writing. Activities include the analytical reading of essays, the critical engagement of reading through writing, the drafting and writing of essays, and the developing of editing skills. This course does not meet the General Education requirements for the A.A. and A.S. degrees. English placement options: https://www.harpercollege.edu/testing/english-placement-grid.php
Typically offered: Fall, Spring, Summer

ENG 101 - Composition I (3 Credits)
3 lecture, 3 total contact hours
Emphasizes the writing of expository prose. Introduction to the critical reading of nonfiction prose. IAI C1 900 Prerequisite: ENG 096 with a grade of P or other placement options. https://www.harpercollege.edu/testing/english-placement-grid.php ESL students need one of the following options: ESL 073 and ESL 074 with grades of B or better; ESL 073 with a grade of B or better and required writing placement test score; or ESL 074 with a grade of B or better and required reading placement test score.
Typically offered: Fall, Spring, Summer

ENG 102 - Composition II (3 Credits)
3 lecture, 3 total contact hours
Continues ENG 101. Reading literature and writing of various types of prose. Introduces methods used in writing investigative papers. IAI C1 901R Prerequisite: ENG 101 with a grade of C or better, or consent of instructor or department chair.
Typically offered: Fall, Spring, Summer

ENG 103 - Technical and Report Writing (3 Credits)
3 lecture, 3 total contact hours
Introduces the various types of writing and communication used in business and technology. Includes instructions, procedures, abstracts, proposals, visuals and reports. Prerequisite: ENG 101 with a grade of C or better, or consent of instructor or department chair.
Typically offered: Fall, Spring, Summer

ENG 130 - Business Writing (3 Credits)
3 lecture, 3 total contact hours
Teaches formal and psychological aspects of business correspondence. Introduction to various kinds of business letters, memoranda and reports. Improvement of grammar, spelling and word usage. Prerequisite: ENG 096 with a grade of P or other placement options. https://www.harpercollege.edu/testing/english-placement-grid.php
Typically offered: Fall, Spring, Summer

ENG 200 - Professional Writing: Grammar and Style (3 Credits)
3 lecture, 3 total contact hours
Investigates the elements of English grammar, usage, and style important for effective academic and public writing, such as letters, essays, reports, and proposals. Prerequisite: ENG 101 with a grade of C or better, or consent of instructor or department chair.
Typically offered: Fall, Spring, Summer

ENG 201 - Advanced Composition (3 Credits)
3 lecture, 3 total contact hours
Teaches additional skills in critical reading and thinking, the forms of public expository and argumentative writing and the elements of an effective public writing style. Prerequisite: ENG 102 with a grade of C or better, or consent of instructor.
Typically offered: Fall, Spring, Summer

ENG 220 - Creative Writing (3 Credits)
3 lecture, 3 total contact hours
Provides guided practice in various types of creative writing. Emphasizes skills common to creative expression, including description, plotting, narration, dialogue and verse. Prerequisite: ENG 102 with a grade of C or better, or consent of instructor.
Typically offered: Fall, Spring, Summer

ENG 221 - Writing Fiction (3 Credits)
3 lecture, 3 total contact hours
Explores the art and craft of fiction-writing in depth. Students will examine the writing process in terms of story form, structure, pacing, writing vividly, using varied sentence patterns, building characterization, creating appropriate settings in time and place, using various points of view, developing themes, exploiting style and various poetic devices in prose, and practicing the crucial step of revision. Students will participate in peer workshops.
Typically offered: Fall, Spring, Summer

ENG 222 - Writing Poetry (3 Credits)
3 lecture, 3 total contact hours
Provides language-interested students with practice in writing fixed-form poetry (English and Italian sonnets, villanelles, and more) and free-form poetry. Includes a detailed introduction to the rhythms of poetry in English, including stress patterns (iambic, trochee, anapest, etc.) and patterns of line length (trimester, tetrameter, pentameter, etc.). Asks students to read diverse models of quality poetry in its various forms. Encourages each student through drafting and revision to develop a uniquely personal writing voice and style and to learn to express him/herself and evaluate the world at large--whether in tightly structured stanzas or in free-verse narratives--in genuinely imaginative ways.
Typically offered: Fall, Spring, Summer

ENG 230 - Topics in English (1-3 Credits)
1 - 3 lecture, 1 - 3 total contact hours
Examines selected eras or topics in the various fields of English and/or composition studies. The exact content and instructional methodology will vary from semester to semester depending on the material to be studied. A topic-specific syllabus containing additional infomration will be available in the Liberal Arts Division Office with other pre-registration materials each time the course is offered. This course may be repeated to a maximum of 12 credit hours.
Typically offered: Fall, Spring, Summer

English as a Second Language (ESL)

ESL 006 - ESL: Guided Language Laboratory Instruction (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Develops English skills for beginning to advanced students of English as a Second Language. Following consultation with the instructor, students work independently in the language laboratory on the skills of their choice and at the recommended level of proficiency. The instructor provides further support via in-person meetings, telephone or e-mail. Carries no transfer credit. Prerequisite: Required placement test scores, no permission needed.
Typically offered: Fall, Spring, Summer

ESL 007 - Topics In ESL/High Intermediate (0.5-4 Credits)
.5 - 4 lecture, .5 - 4 total contact hours
Focuses on academically oriented topics in English as a Second Language (ESL) at the high intermediate level. The exact content and instructional methodology will vary semester to semester depending on the material to be studied. A syllabus or course outline containing additional information will be available with registration materials each time that the course is offered. This course may be repeated up to a maximum of four credit hours. Carries no transfer credit. Prerequisite: ESL 053 and ESL 063 with grades of C or better, OR required placement test scores. (This prerequisite is being waived for the spring 2021 semester.)
Typically offered: Fall, Spring, Summer

ESL 008 - Grammar Review for Levels I and II (2 Credits)
2 lecture, 2 total contact hours
Focuses on verb tenses, nouns, and determiners for low intermediate students of English as a Second Language. Reviews the form and function of the grammatical patterns. Includes practice in recognizing and accurately producing the patterns, with focus on listening and speaking. Carries no transfer credit. Prerequisite: Required placement test scores.
Typically offered: Fall, Spring, Summer

ESL 009 - Grammar Review for Levels III and IV (2 Credits)
2 lecture, 2 total contact hours
Focuses on verb tenses and modals and related structures for intermediate students of English as a Second Language. Reviews the form and function of the grammatical patterns. Includes practice in recognizing and accurately producing the patterns in spoken and written form. Carries no transfer credit. Prerequisite: (ESL 043 or ESL 044) and ESL 056 with grades of C or better; OR ESL 046 with a grade of C or better and required placement test scores; OR required placement test scores.
Typically offered: Fall, Spring, Summer

ESL 027 - ESL: Academic Communication Skills II (3 Credits)
3 lecture, 3 total contact hours
Focuses on the development of oral/aural conversation skills for low intermediate English as a Second Language students. Concentrates on areas necessary for successful communication in academic, professional and social settings. Carries no transfer credit. Prerequisite: Required placement test scores.
Typically offered: Fall, Spring

ESL 028 - ESL: Conversation II (2 Credits)
2 lecture, 2 total contact hours
Introduces conversation skills for high-beginning English as a Second Language students who read and write proficiently in their native languages. Concentrates on areas necessary for successful communication in a variety of American settings. Carries no transfer credit. Prerequisite: Required placement test scores.
Typically offered: Fall, Spring, Summer

ESL 032 - ESL: Academic Communication Skills III (3 Credits)
3 lecture, 3 total contact hours
Focuses on development of oral/aural communication skills for intermediate English as a Second Language students. Concentrates on areas necessary to prepare for successful communication in academic, professional and social settings. Includes pronunciation and academic vocabulary skills. Carries no transfer credit. Prerequisite: ESL 027 with a grade of C or better, OR required placement test scores.
Typically offered: Fall, Spring

ESL 034 - ESL: Reading II (4 Credits)
4 lecture, 4 total contact hours
Develops reading skills for low-intermediate English as a Second Language students. Focuses on reading a variety of modified texts. Carries no transfer credit. Prerequisite: Required placement test scores.
Typically offered: Fall, Spring, Summer

ESL 038 - ESL: Conversation III (2 Credits)
2 lecture, 2 total contact hours
Develops conversation skills for intermediate English as a Second Language students. Concentrates on areas necessary for successful communication in formal and infomal settings. Carries no transfer credit. Prerequisite: ESL 028 with a grade of C or better, OR required placement test scores.
Typically offered: Fall, Spring, Summer

ESL 039 - ESL: Conversation IV (2 Credits)
2 lecture, 2 total contact hours
Expands conversation skills for high intermediate English as a Second Language students. Concentrates on areas necessary for successful communication in a variety of American settings. Carries no transfer credit. Prerequisite: ESL 038 with a grade of C or better, OR required placement test scores.
Typically offered: Fall, Spring, Summer

ESL 043 - ESL: Writing II (4 Credits)
4 lecture, 4 total contact hours
Focuses on the writing of paragraphs and on grammatical structures and patterns for low intermediate English as a Second Language students. Introduces sentence patterns and editing skills. Carries no transfer credit. Prerequisite: ESL 046 with a grade of C or better, OR required placement test scores.
Typically offered: Fall, Spring, Summer

ESL 044 - ESL:Writing II Intensive Program (2 Credits)
2 lecture, 2 total contact hours
Focuses on the writing of paragraphs. Designed for low intermediate English as a Second Language students. Introduces sentence patterns and editing skills. Carries no transfer credit. Prerequisite: ESL 046 with a grade of C or better, OR required placement test scores.
Typically offered: Fall, Spring, Summer

ESL 046 - ESL: Grammar II (4 Credits)
4 lecture, 4 total contact hours
Focuses on grammatical structures and patterns of English for low-intermediate English as a Second Language students. Emphasizes the recognition and production of grammatical structures and how these structures affect meaning in both spoken and written English. Carries no transfer credit. Prerequisite: Required placement test scores.
Typically offered: Fall, Spring

ESL 053 - ESL: Reading III (4 Credits)
4 lecture, 4 total contact hours
Develops reading techniques for intermediate English as a Second Language students. Focuses on the reading of a variety of materials. Promotes independent reading in English. Carries no transfer credit. Prerequisite: ESL 034 and (ESL 043 or ESL 044) with grades of C or better; OR ESL 034 with a grade of C or better and required ESL Writing test score; OR ESL 043 or ESL 044 with a grade of C or better and required ESL Reading test score; OR required placement test scores.
Typically offered: Fall, Spring, Summer

ESL 056 - ESL: Grammar III (4 Credits)
4 lecture, 4 total contact hours
Focuses on the study of grammatical structures and patterns of English for intermediate English as a Second Language students. Includes practice of patterns introduced previously. Emphasizes the recognition and production of grammatical structures and how these affect meaning in both spoken and written English. Carries no transfer credit. Prerequisite: ESL 046 with a grade of C or better, OR required placement test scores.
Typically offered: Fall, Spring

ESL 057 - ESL: Reading IV (4 Credits)
4 lecture, 4 total contact hours
Develops reading techniques for high intermediate English as a Second Language students. Focuses on the reading of a variety of materials in their original form. Promotes independent reading in English. Carries no transfer credit. Prerequisite: (ESL 043 OR ESL 044) AND ESL 053 with grades of C or better; OR ESL 053 and ESL 063 with grades of C or better; OR ESL 043 OR ESL 044 with a grade of C or better and required ESL Reading test score; OR ESL 053 with a grade of C or better and a required ESL Writing test score; OR required placement test scores.
Typically offered: Fall, Spring, Summer

ESL 063 - ESL: Writing III (4 Credits)
4 lecture, 4 total contact hours
Develops academic writing for intermediate English as a Second Language students. Emphasizes expository paragraphs and introduces essays. Carries no transfer credit. Prerequisite: ESL 034 and (ESL 043 or ESL 044) with grades of C or better; OR ESL 043 or ESL 044 with a grade of C or better and required ESL Reading test score; OR ESL 034 with a grade of C or better and required ESL Writing test score; or required placement test scores.
Typically offered: Fall, Spring, Summer

ESL 067 - ESL: Writing IV (4 Credits)
4 lecture, 4 total contact hours
Develops academic writing for high-intermediate English as a Second Language students. Emphasizes expository essays. Carries no transfer credit. Prerequisite: ESL 034 and ESL 063 with grades of C or better; OR ESL 053 and ESL 063 with grades of C or better; or ESL 034 with a grade of C or better and required ESL Writing test score; OR ESL 063 with a grade of C or better and required ESL Reading test score; OR required placement test scores.
Typically offered: Fall, Spring, Summer

ESL 070 - ESL Skills for the Health Care Field (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Focuses on the exploration of various health care fields, English language skills and aspects of Ameerican culture specific to the field for English as a Second Language (ESL) students at the high intermediate level. Includes reading skills, idiomatic expressions and vocabulary related to healthcare careers in both written and verbal English. Carries no transfer credit. Prerequisite: ESL 053 and ESL 063 with grades of C or better, or required placement test scores.
Typically offered: Fall, Spring, Summer

ESL 071 - ESL: Business Communication Skills (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Focuses on business English skills for English as a Second Language (ESL) students at the high intermediate level. Includes phone skills, writing e-mail and business letters, and using business phrases, idioms and vocabulary in both written and verbal English. Carries no transfer credit. Prerequisite: ESL 053 and ESL 063 with grades of C or better, or required placement test scores.
Typically offered: Fall, Spring, Summer

ESL 072 - ESL: Academic Communication Skills IV (3 Credits)
3 lecture, 3 total contact hours
Focuses on the development of academic and professional oral/aural communication skills for high intermediate English as a Second Language (ESL) students. Concentrates on lecture comprehension, collaborative learning and advanced pronunciation and presentation skills. Carries no transfer credit. Prerequisite: ESL 032 with a grade of C or better, or required placement test scores.
Typically offered: Fall, Spring

ESL 073 - ESL: Reading V (4 Credits)
4 lecture, 4 total contact hours
Develops reading techniques for advanced English as a Second Language students. Focuses on the reading of college textbooks and academic discussions of literature. Carries no transfer credit. Prerequisite: ESL 057 and ESL 063 with grades of C or better; OR ESL 057 and ESL 067 with grades of C or better; OR ESL 084 with a grade of C or better; OR ESL 057 with a grade of C or better and required ESL Writing test score; OR ESL 063 with a grade of C or better and required ESL Reading test score; OR required placement test scores.
Typically offered: Fall, Spring

ESL 074 - ESL: Writing V (4 Credits)
4 lecture, 4 total contact hours
Focuses on academic writing for advanced English as a Second Language students. Emphasizes expository essays. Carries no transfer credit. Prerequisite: ESL 053 and ESL 067 with grades of C or better; OR ESL 057 and ESL 067 with grades of C or better; OR ESL 084 with a grade of C or better; OR ESL 053 with a grade of C or better and required ESL Writing test score; OR ESL 067 with a grade of C or better and required ESL Reading test score; OR required placement test scores.
Typically offered: Fall, Spring, Summer

ESL 076 - ESL: Grammar IV (4 Credits)
4 lecture, 4 total contact hours
Focuses on grammatical structures and patterns of English for high-intermediate English as a Second Language students. Includes practice of patterns introduced previously. Emphasizes the recognition and production of grammatical structures and how they affect meaning in both spoken and written English. Carries no transfer credit. Prerequisite: ESL 056 with a grade of C or better, OR required placement test scores.
Typically offered: Fall, Spring

ESL 077 - ESL: Advanced Vocabulary I (2 Credits)
2 lecture, 2 total contact hours
Focuses on the vocabulary of formal American English speech and writing for advanced English as a Second Language students. Emphasizes words and expressions associated with academic style and register. Carries no transfer credit. Prerequisite: ESL 053, ESL 056, or ESL 063 with a grade of C or better, OR required placement test scores.
Typically offered: Fall, Spring, Summer

ESL 084 - ESL: Reading and Writing IV (6 Credits)
6 lecture, 0 lab, 6 total contact hours
Develops reading and writing skills for high-intermediate English as a Second Language students who read and write proficiently in their native languages. Focuses on reading of a variety of materials in their original form and emphasizes expository writing in a 5-paragraph essay format. Carries no transfer credit. Prerequisite: ESL 053 and ESL 063 with grades of C or better OR ESL 053 with a grade of C or better and required ESL writing score OR ESL 063 with a grade of C or better and required ESL Reading score OR placement test scores.
Typically offered: Fall, Spring

ESL 085 - ESL: Pronunciation Skills (2 Credits)
2 lecture, 2 total contact hours
Focuses on improvement of pronunciation skills. Designed for advanced English as a Second Language students. Emphasizes connected speech, including such features as sounds, stress, intonation and timing. Carries no transfer credit. Prerequisite: ESL 053, ESL 056, or ESL 063 with a grade of C or better, OR required placement test scores.
Typically offered: Fall, Spring

ESL 086 - ESL: Editing Skills (2 Credits)
2 lecture, 2 total contact hours
Provides intensive writing practice with a focus on editing skills for advanced English as a Second Language students. Reviews essay development, mechanics and the features of American English grammatical structure that are most difficult for ESL students. Carries no transfer credit. Prerequisite: ESL 053 and ESL 067 with grades of C or better; OR ESL 057 and ESL 067 with grades of C or better; OR ESL 084 with a grade of C or better; OR ESL 053 with a grade of C or better and required ESL Writing test score; OR ESL 067 with a grade of C or better and required ESL Reading test score; OR required placement test scores.
Typically offered: Fall, Spring

ESL 087 - ESL: Advanced Vocabulary II (2 Credits)
2 lecture, 2 total contact hours
Focuses on the vocabulary of informal American English speech and writing for advanced English as a Second Language students. Emphasizes the high-frequency idiomatic expressions that are most troublesome for advanced ESL students. Carries no transfer credit. Prerequisite: ESL 053, ESL 056, or ESL 063 with a grade of C or better, OR required placement test scores.
Typically offered: Fall, Spring

English for Special Purposes (ESP)

ESP 010 - Topics in English for Special Purposes (0.5-4 Credits)
.5 - 4 lecture, .5 - 4 total contact hours
Focuses on academically oriented topics in or related to English as a Second Language (ESL) at the pre-college level. The focus is on special areas of English Language Instruction not covered in the academic ESL curriculum. The exact content and instructional methodology will vary semester to semester depending on the topic(s) to be studied. A syllabus or course outline containing additional information will be available with registration materials each time that the course is offered. This course may be repeated up to a maximum of four credit hours. Carries no transfer credit. Prerequisite: ESL 053 and ESL 063 with grades of C or better, or required placement score.
Typically offered: Fall, Spring, Summer

ESP 071 - ESL: Business Communication Skills (4 Credits)
4 lecture, 4 total contact hours
Focuses on business English skills for English as a Second Language (ESL) students at the high intermediate level. Includes phone skills, writing email and business letters, and using business phrases, idioms, and vocabulary in both written and spoken English. Carries no transfer credit. Prerequisite: ESL 053 and ESL 063 with a grade of C or better, OR required placement test scores.
Typically offered: Fall, Spring, Summer

ESP 080 - Academic Literacy for Multilingual Students (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides intensive instruction, workshopping, and programming that supports multilingual students' development as academic readers and writers. This course is intended for multilingual students whose reading and writing placement indicates the need for additional instructional support for success in college-level English. Students are required to register for both ESP 080 and ENG 101 during the same semester. Students must pass both ESP 080 and ENG 101 to fulfill the general education requirement of ENG 101. Prerequisite: English Writing placement score of 3 and advisor referral. Corequisite: ENG 101.
Typically offered: Fall, Spring

ESP 095 - English Composition Supplement (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides language support for advanced English as a Second Language (ESL) students in corequisite English 101. Reviews essay development, mechanics and the features of American English grammatical structure that are most difficult for ESL students. This course is intended for ESL students whose writing placement indicates the need for additional instructional support for success in college-level English. Students are required to register for both ESP 095 and ENG 101 during the same semester. Students must pass both ESP 095 and ENG 101 to fulfill the general education requirement of ENG 101. Pass/No pass course. Carries no transfer credit. Prerequisite: 3.5 on the Harper English Placement Exam and Advising referral. Corequisite: ENG 101.
Typically offered: Fall, Spring

English Literacy Acquisition (ELA)

ELA 001 - English Literacy Acquisition I (1-6 Credits)
1 - 6 lecture, 0 lab, 1 - 6 total contact hours
Develops English conversation and literacy skills for Adult Education NRS (National Reporting System) Beginning ESL Literacy Learners. Develops the listening, speaking, reading, and writing skills necessary for basic survival needs. Develops critical thinking by recalling facts and terms. Topics may include social skills/American culture, health, housing, civics, goal-setting, employment skills, math and consumer skills, and technology. Grammar points are integrated as appropriate. Focuses on vocabulary acquisition and beginning listening and receptive literacy skills. This course is the first in a sequence of ten courses. It is for students of English who have limited native language literacy skills. Eligible Adult Education students must complete orientation and standardized testing requirements before enrolling. Carries no transfer credit.
Typically offered: Fall

ELA 002 - English Literacy Acquisition II (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Further develops English conversation and literacy skills for Adult Education NRS (National Reporting System), Beginning ESL Literacy, and Low-Beginning ESL Learners. Develops the listening, speaking, reading and writing skills necessary for basic survival needs. Develops critical thinking by recalling facts, terms and basic concepts. Topics may include social skills/American culture, health, housing, civics, goal-setting, employment skills, math and consumer skills, and technology. Grammar points are integrated as appropriate. Focuses on vocabulary acquisition and beginning listening and productive literacy skills. This course is the second in a sequence of ten courses. It is for students of English who have limited native language literacy skills. Eligible Adult Education students must complete orientation and standardized testing requirements before enrolling. Carries no transfer credit.
Typically offered: Spring, Summer

ELA 003 - English Literacy Acquisition III (1-6 Credits)
1 - 6 lecture, 0 lab, 1 - 6 total contact hours
Develops English conversation and literacy skills for Adult Education NRS (National Reporting System), Low-Beginning ESL Learners. Develops the listening, speaking, reading and writing skills necessary for survival needs. Develops critical literacy skills by recalling and organizing facts and basic concepts. Topics may include personal data, social skills/American culture, health, housing, civics, goal setting, employment skills, math and consumer skills, and technology. Grammar points are integrated as appropriate. Focuses on basic vocabulary acquisition and literacy skills in daily routine situations. This course is the third in a sequence of ten courses. It is for students of English who have limited native language literacy skills. Eligible Adult Education students must complete orientation and standardized testing requirements before enrolling. Carries no transfer credit.
Typically offered: Fall

ELA 004 - English Literacy Acquisition IV (1-6 Credits)
1 - 6 lecture, 0 lab, 1 - 6 total contact hours
Further develops English conversation and literacy skills for Adult Education NRS (National Reporting System), High-Beginning ESL Learners. Develops the listening, speaking, reading and writing skills necessary for survival needs. Develops critical literacy skills by recalling, organizing and comparing facts, and basic concepts. Topics may include personal data, social skills/American culture, health, housing, civics, goal setting, employment skills, math and consumer skills, and technology. Grammar points are integrated as appropriate. Focuses on using basic vocabulary and literacy skills in daily routine situations. This course is the fourth in a sequence of ten courses. It is for students of English who have limited native language literacy skills. Eligible Adult Education students must complete orientation and standardized testing requirements before enrolling. Carries no transfer credit.
Typically offered: Spring, Summer

ELA 005 - English Literacy Acquisition V (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Develops English conversation and literacy skills for Adult Education NRS (National Reporting System), Low-Intermediate ESL Learners. Develops the listening, speaking, reading, and writing skills necessary for life and work. Develops critical thinking by organizing, comparing and interpreting facts. Topics may include social skills/American culture, health, housing, civics, goal-setting, employment skills, math and consumer skills, and technology. Grammar points are integrated as appropriate. This course is the fifth in a sequence of ten courses. It is for students of English who have limited native language literacy skills. Eligible Adult Education students must complete orientation and standardized testing requirements before enrolling. Carries no transfer credit.
Typically offered: Fall

ELA 006 - English Literacy Acquisition VI (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Further develops English conversation and literacy skills for Adult Education NRS (National Reporting System), Low-Intermediate ESL Learners. Develops the listening, speaking, reading and writing skills necessary for life and work. Develops critical thinking by organizing, comparing, and interpreting facts, giving descriptions, and stating main ideas. Topics may include social skills/American culture, health, housing, civics, goal-setting, employment skills, math and consumer skills, and technology. Grammar points are integrated as appropriate. This course is the sixth in a sequence of ten courses. It is for students of English who have limited native language literacy skills. Eligible Adult Education students must complete orientation and standardized testing requirements before enrolling. Carries no transfer credit.
Typically offered: Spring, Summer

ELA 007 - English Literacy Acquisition VII (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Develops English conversation and literacy skills for Adult Education NRS (National Reporting System) High-Intermediate ESL Learners. Develops the listening, speaking, reading and writing skills necessary for civic involvement, employment and pre-academic preparation. Introduces pre-academic reading, writing, technology, math and study skills in preparation for academic ESL or the workforce. Develops critical thinking skills by solving problems in new situations by applying acquired knowledge, facts, techniques and rules in a new way. Topics may include social skills/American culture, health, civics, housing, consumer skills/financial literacy, employment, transportation, education/U.S. school system, and science and technology. Grammar points are integrated as appropriate. This course is the seventh in a sequence of ten courses. It is for students of English who have limited native language literacy skills. Eligible Adult Education students must complete orientation and standardized testing requirements before enrolling. Carries no transfer credit.
Typically offered: Fall

ELA 008 - English Literacy Acquisition VIII (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Further develops English conversation and literacy skills for Adult Education NRS (National Reporting System) High-Intermediate ESL Learners. Develops the listening, speaking, reading and writing skills necessary for civic involvement, employment and pre-academic preparation. Introduces pre-academic reading, writing, technology, math and study skills in preparation for academic ESL or the workforce. Develops critical thinking skills by solving problems in new situations by applying acquired knowledge, facts, techniques and rules in a new way. Topics may include social skills/American culture, health, civics, housing, consumer skills/financial literacy, employment, transportation, education/U.S. school system, and science and technology. Grammar points are integrated as appropriate. This course is the eighth in a sequence of ten courses. It is for students of English who have limited native language literacy skills. Eligible Adult Education students must complete orientation and standardized testing requirements before enrolling. Carries no transfer credit.
Typically offered: Spring, Summer

ELA 009 - Transition to HSE/Postsecondary Training I (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Develops English conversation and literacy skills for Adult Education NRS (National Reporting System) Advanced ESL Learners. Develops the listening, speaking, reading and writing skills necessary to prepare students for High School Equivalency (HSE) Preparation, Academic ESL, the workplace and career programs. Develops academic reading, writing, technology and math skills. Focuses on study skills, test-taking and other pre-academic skills necessary for college success. Develops critical thinking skills by analyzing, making inferences and finding evidence to support generalizations. Topics may include life skills, employment, current events, civics, U.S. History and government, geography, science and technology and literature. Grammar points are integrated as appropriate. This is the ninth in a sequence of ten courses. It is for students of English who have limited native language literacy skills. Eligible Adult Education students must complete orientation and standardized testing requirements before enrolling. Carries no transfer credit.
Typically offered: Fall

ELA 010 - Transition to HSE/Postsecondary Training II (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Typically offered: Spring, Summer

ELA 011 - Digital and Information Skills for Beginning English Literacy Learners (1-4 Credits)
1 - 4 lecture, 1 - 4 total contact hours
Introduces the use of computer, digital and information literacy skills for Adult Education NRS (National Reporting System) Beginning ELL learners. Focuses on familiarizing learners with very basic keyboarding functions and word processing. Introduces components of the Web and accessing a website using a browser such as Internet Explorer or Google Chrome. Develops critical thinking skills by recalling, organizing and comparing facts and basic concepts. Topics may include life skills, civic engagement, academic skill development and workforce/career preparation. This is the first in a sequence of four courses for students of English who may have limited native language literacy skills. Students must take a language proficiency test before enrolling. Carries no transfer credit. May be repeated three times.
Typically offered: Fall, Spring

ELA 012 - Digital and Information Skills for Low-Intermediate English Literacy Learners (1-4 Credits)
1 - 4 lecture, 1 - 4 total contact hours
Develops the use of computer, digital and information literacy skills for Adult Education NRS (National Reporting System) Low-Intermediate ESL Learners. Focuses on email communication, including accessing the Harper student portal, logging in, viewing inbox and attachments, and composing messages. Introduces features of a very basic resume. Reviews the use of browsers to search for basic information, directions, weather, school, community or shopping websites. Introduces PowerPoint and use of graphics and to convey information in basic presentations. Develops critical thinking skills by interpreting facts, giving descriptions and stating main ideas. Topics may include life skills, civic engagement, academic skill development, and workforce/career preparation. This is the second in a sequence of four courses for students of English who may have limited native language literacy skills. Students must take a language proficiency test before enrolling. Carries no transfer credit. May be repeated three times.
Typically offered: Fall, Spring

ELA 013 - Digital and Information Skills for High-Intermediate English Literacy Learners (1-4 Credits)
1 - 4 lecture, 1 - 4 total contact hours
Further develops the use of computer, digital and information literacy skills for Adult Education NRS (National Reporting System) High-Intermediate ESL Learners. Reviews email functions, writing formal letters, and sending a resume; managing email messages; and identifying correct email etiquette. Builds digital literacy and information literacy skills in a variety of academic and workplace settings. Further develops critical thinking skills by applying acquired knowledge, techniques and rules in new contexts. Topics may include life skills, civic engagement, academic skill development, and workforce/career preparation. This is the third in a sequence of four courses for students of English who may have limited native language literacy skills. Students must take a language proficience test before enrolling. Carries no transfer credit. May be repeated three times.
Typically offered: Fall, Spring

ELA 059 - Bridge to Health Careers Foundations (0.5-6 Credits)
.5 - 6 lecture, .5 - 6 total contact hours
Bridge to Healthcare integrates basic listening, speaking, reading, writing, and math skills with occupational specific knowledge in the healthcare sector. Contextualizes skills to prepare students to transition into postsecondary education and/or employment. Designed for students assessed at the low intermediate and above reading level using the approved assessment tool. This course includes career awareness and intensive supportive services. Carries no transfer credit. Prerequisite: Application and placement testing as required by Adult Educational Development department.

ELA 060 - Bridge to Health Careers (0.5-6 Credits)
.5 - 6 lecture, 0 lab, .5 - 6 total contact hours
Integrates basic listening, speaking, reading, writing, and math skills with occupational specific knowledge in the healthcare sector. Contextualizes skills to prepare students to transition into postsecondary education and/or employment. Designed for students assessed at the low intermediate and above reading level using the approved assessment tool. This course includes career awareness and intensive supportive services. Carries no transfer credit. Prerequisite: Application and placement testing as required by Adult Educational Development department.

ELA 065 - Bridge to Office Careers Foundations (0.5-6 Credits)
.5 - 6 lecture, .5 - 6 total contact hours
The Bridge to Office Careers class integrates basic listening, speaking, reading, writing, and math skills with occupational specific knowledge for careers in offices. Contextualized curriculum prepares students to transition into postsecondary education and/or employment. Designed for students assessed at the low intermediate and above reading level using the approved assessment tool. This course includes career awareness and intensive supportive services. Carries no transfer credit. Prerequisite: Application and placement testing as required by Adult Educational Development department.

ELA 066 - Bridge to Office Careers (0.5-6 Credits)
.5 - 6 lecture, .5 - 6 total contact hours
Integrates basic listening, speaking, reading, writing, and math skills with occupational specific knowledge for office careers. Contextualized curriculum prepares students to transition into postsecondary education and/or employment. Designed for students assessed at the low intermediate and above reading level using the approved assessment tool. This course includes career awareness and intensive supportive services. Carries no transfer credit. Prerequisite: Application and placement testing as required by Adult Educational Development department.

ELA 067 - Bridge to Technology (1-4 Credits)
1 - 4 lecture, 1 - 4 total contact hours
The Bridge to Technology class integrates basic listening, speaking, reading, writing, and math skills with occupational specific knowledge for careers in Information Technology (IT). Contextualized curriculum prepares students to transition into postsecondary education and/or employment. Designed for students assessed at the low intermediate and above reading level using the approved assessment tool. This course includes career awareness and intensive supportive services. Carries no transfer credit. Prerequisite: Application and placement testing as required by Adult Educational Development department.

ELA 071 - Citizenship Preparation for Beginning English Literacy Acquisition (ELA) Learners (1-4 Credits)
1 - 4 lecture, 1 - 4 total contact hours
Introduces the basic structure, functions and purposes of U.S. federal government and aspects of American history and geography for Adult Education NRS (National Reporting System) Beginning ESL Learners. Explains the procedures and application for U.S. naturalization and the basic rights and responsibilities of U.S. citizenship. Promotes awareness of contributions from diverse and multicultural groups in the U.S. Introduces vocabulary, listening, speaking, critical thinking, and digital and graphic literacy skills necessary for passing the naturalization test and interview. This is the first in a sequence of four courses for students of English who may have limited native language literacy skills. Students must take a language proficiency test before enrolling. Carries no transfer credit. May be repeated three times.
Typically offered: Fall, Spring

ELA 072 - Citizenship Preparation for Low-Intermediate English Literacy Acquisition (ELA) Learners (1-4 Credits)
1 - 4 lecture, 1 - 4 total contact hours
Develops the basic structure, functions and purposes of the U.S. federal government and major aspects of American history and geography for Adult Education NRS (National Reporting System) Low-Intermediate ESL Learners. Explains the procedures and application for U.S. naturalization and the rights and responsibilities of U.S. citizenship. Promotes awareness of contributions from diverse and multicultural groups in the U.S. Reviews listening, speaking, and critical thinking; digital and graphic literacy skills necessary for passing the naturalization test and interview. This is the second in a sequence of four courses for students of English who may have limited native language literacy skills. Students must take a language proficiency test before enrolling. Carries no transfer credit. May be repeated three times.
Typically offered: Fall, Spring

ELA 073 - Citizenship Preparation for High-Intermediate English Literacy Acquisition (ELA) Learners (1-4 Credits)
1 - 4 lecture, 1 - 4 total contact hours
Further develops the basic structure, functions and purposes of the U.S. federal government and major aspects of Ameircan history and geography for Adult Education NRS (National Reporting System) High-Intermediate ESL Learners. Further develops the procedures and application for U.S. naturalization and the rights and responsibilities of U.S. citizenship. Promotes awareness of contributions from diverse and multicultural groups in the U.S. Develops advanced vocabulary and reviews the listening, speaking, critical thinking, digital and graphic literacy skills necessary for passing the naturalization test and interview. This is the third in a sequnce of four courses for students of English who may have limited native language literacy skills. Students must take a language proficiency test before enrolling. Carries no transfer credit. May be repeated three times.
Typically offered: Fall, Spring

ELA 081 - Oral Communication for Beginning English Literacy Acquisition (ELA) Learners (1-4 Credits)
1 - 4 lecture, 1 - 4 total contact hours
Introduces beginning English language oral communication skills for effective participation in the community and workplace. Adult Education NRS (National Reporting System) Beginning ESL learners will use structured dialogue and scaffolded practice to become more comfortable with listening and speaking skills necessary for daily life, classroom and entry into the workforce. Speech production techniques will be taught throughout to improve intelligibility. Topics may include life skills, community resources, classroom communications and workforce preparation. This is the firs in a sequence of four courses for students of English who may have limited native language literacy skills. Students must take a language proficence test before enrolling. Carries no transfer credit. May be repeated three times.
Typically offered: Fall, Spring

ELA 082 - Oral Communication for Low-Intermediate English Literacy Acquisition (ELA) Learners (1-4 Credits)
1 - 4 lecture, 1 - 4 total contact hours
Develops effective oral communication skills for active participation in the U.S. workforce academic environments, and in the community. Adult Education NRS (National Reporting System) Low-Intermediate ESL Learners will continue to learn English phrases/markers to improve intelligibility. Critical listening skills to evaluate speaker's argument, perspective and evidence will be taught. Speech production techniques will be taught throughout to improve intelligibility. Topics may include life skills, community resources, classroom communications and workforce preparation. This is the second in a sequence of four courses for students of English who may hae limited native language literacy skills. Students must take a language proficiency test before enrolling. Carries no transfer credit. May be repeated three times.
Typically offered: Fall, Spring

ELA 083 - Oral Communication for High-Intermediate English Literacy Acquisition (ELA) Learners (1-4 Credits)
1 - 4 lecture, 1 - 4 total contact hours
Further develops effective and appropriate oral communication skills for active participation in the U.S. workforce, academic environments and interpersonal interactions. Adult Education NRS (National Reporting System) High-Intermediate ESL learners will use their knowledge of English to further communicate effectively, learning the cultural, sociolinguistic and most effective language skills to meet their needs. Speech mechanics will be taught throughout to improve intelligibility. Topics may include life skills, civic engagement, academic language development and workforce/career preparation. This is the third in a sequence of four courses for students of English who may have limited native language literacy skills. Students must take a language proficiency test before enrolling. Carries no transfer credit. May be reepated three times.
Typically offered: Fall, Spring

ELA 091 - Bridge to College and Career Success (1-4 Credits)
1 - 4 lecture, 1 - 4 total contact hours
Provide skills needed to be successful in college/career program classes. Emphasis is placed on introducing college success skills such as time management, testing, reading/writing strategies, and note-taking, while exploring career options. Designed for AED students who will transition into college/certificate programs offered at Harper College. Must be enrolled in Harper's AED department's Level 9/10 ELA classes.

ELA 098 - Integrated Early Childhood Education (1-4 Credits)
1 - 4 lecture, 1 - 4 total contact hours
Integrates basic listening, speaking, reading, writing, and math skills with content knowledge in Early Childhood Education (ECE) course sequence according to the Integrated Education and Training (IET) program administered as the Integrated Career and Academic Preparation System in the state of Illinois (ICAPS). Contextualizes academic skills to prepare students to transition into postsecondary education and/or employment. Recommended for Spanish-speaking students when this course is offered in a bilingual format. Must be co-enrolled in the ECE Certificate sequence. Includes career awareness and transition supportive services. Carries no transfer credit.
Typically offered: Fall, Spring

Fashion Studies (FAS)

FAS 100 - Industrial Sewing Methods (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Introduces students to basic principles of apparel construction techniques. Course projects require the use of industrial sewing equipment. Presents instruction in basic sewing techniques and their application to garment construction. (NOTE: Final project should be completed to participate in the annual department Little Black Dress competition.)
Typically offered: Fall, Spring

FAS 101 - Flat Pattern I (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Introduces the principles of patternmaking through drafting basic block and pattern manipulation. Working from the flat pattern, students will apply these techniques to the creation of a garment design. Accuracy and professional standards stressed. Pattern tested in muslin for fit. Final garment will go through the annual jury to participate in the annual department fashion show. Prerequisite: Prior or concurrent enrollment in FAS 100 with a grade of C or better.
Typically offered: Fall, Spring

FAS 102 - Flat Pattern II (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Continues development of basic sloper set. Manipulates basic sloper set to create original design. Patterns tested in muslin for fit. Garment is constructed from corrected patterns. Final garment will go through the annual jury to participate in the annual department fashion show. Prerequisite: FAS 101 with a grade of C or better.
Typically offered: Fall, Spring

FAS 104 - Apparel Design and Construction (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Develops patterns from basic sloper set. Actual construction of finished garments to be shown at the annual department fashion show. Emphasis on styling, fit, and professional finishing. Prerequisite: Prior or concurrent enrollment in FAS102 with a grade of C or better.
Typically offered: Fall, Spring

FAS 105 - Fashion Design and Illustration I (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Introduces basic and advanced techniques in rendering the fashion figure, garments, details, and textiles using various media with a focus on application of color and texture. Students will begin to develop a personal illustrative style. Students will be introduced to technical drawing and flat sketches for use in spec sheets, presentations, and story boards.
Typically offered: Fall

FAS 107 - Textiles I (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Explores natural and manufactured fibers, their production, uses, and characteristics. Includes discussion of yarns, fabrics, finishes, design methods, aesthetic applications, and ordering specifications. Emphasizes traditional techniques as well as advancements in technology utilized in the textile industry.
Typically offered: Fall, Spring, Summer

FAS 108 - Textiles II (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Teaches transforming and manipulating textiles through surface design. This class includes textile dyeing, painting, printing, stitching, pleating, and embellishing. Introduces traditional and contemporary techniques to inspire original designs. Prerequisite: FAS 107 with a grade of C or better. Corequisite: FAS 109.
Typically offered: Fall

FAS 109 - Fashion Arts and Design (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Focuses on theory and principles of design for fashion, and familiarizes the student with major fabric names and constructions. Studies the use of unusual material in design and applies those materials to individual projects to be shown at the annual department fashion show. Studies the influence of present-day cultural trends in the field of design. Prerequisite: FAS 102 with a grade of C or better.
Typically offered: Fall

FAS 110 - Costume History (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Introduces the elements of design and color in historical perspective. A survey of historical periods of design focusing on costumes. Examines the influences of social, political and economic forces on these periods. World Culture and Diversity
Typically offered: Fall, Spring

FAS 112 - Fashion Basics (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Presents fashion merchandise through evaluation of fashion products. Develops awareness of construction, as well as workmanship and design elements, such as fabric, color silhouette and taste.
Start Smart
Typically offered: Fall, Spring

FAS 113 - Advanced Industrial Sewing Methods (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Focuses on application and mastery of basic sewing skills in patten and fabric recognition and problem solving related to individual creative design. Emphasis on technolgy, technical accuracy and appropriate use of selected material and supplies. (NOTE: This course is intended for students with basic sewing skill and machine proficiency.) Prerequisite: FAS 100 with a grade of C or better or placement as demonstrated through Fashion Design Department testing. Contact program coordinator for additional information.
Typically offered: Fall, Spring

FAS 116 - Fashion Industries Career Practicum and Seminar (3 Credits)
1 lecture, 10 clinical/other, 11 total contact hours
Studies an overview of career and employment possibilities in the fashion businesses and industries. Places emphasis on individual career path selections through interest testing and career counseling. (NOTE: Concurrent employment of ten hours or more in a fashion related field is required. Contact program coordinator for additional information.)
Typically offered: Fall, Spring

FAS 117 - Textile Knitting Studio (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Introduces students to methods of knitting and design techniques. This course explores use of different materials/yarns and experiments with texture and color.
Typically offered: Spring

FAS 118 - Textile Weaving Studio (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Introduces weaving and different looms. Various techniques and materials will be introduced in this class. This class will explore the terminology of weaving and anatomy looms, project planning, drafting weave structures, selecting yarns, harnessing and problem solving.

FAS 201 - Draping (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Continues advanced development of the creative design process through basic draping techniques on industry standard dress forms. Final garments will go through the annual jury to participate in the annual department fashion show. Prerequisite: FAS 102 with a grade of C or better.
Typically offered: Fall

FAS 204 - Fashion Design Studio (4 Credits)
2 lecture, 4 lab, 6 total contact hours
Works on collection of individual design and actual construction of coordinated garments. This capstone course requirement includes garment entry and participation in annual department fashion show. Prerequisite: FAS 201 with a grade of C or better.
Typically offered: Spring

FAS 208 - Computer-Aided Patternmaking (3 Credits)
2 lecture, 3 lab, 5 total contact hours
Introduces students to the Computerized Patternmaking Software. Students learn the technical terminology and CAD tools to create and modify patterns. Prerequisite: FAS 102 with a grade of C or better.
Typically offered: Spring

FAS 210 - Advanced Fashion Illustration II (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Emphasizes work on a professional studio level. Focuses on work sketches as well as finished art. Studies illustration for advertising, publicity, promotion and display. Includes preparation of professional portfolio. Prerequisite: FAS 105 and GRA 112 with grades of C or better.
Typically offered: Spring

FAS 212 - Visual Fashion Merchandising (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Studies the communication of design and methods of interpreting consumer needs and motivations. Explores the techniques of educating the consumer and promoting good design through visual display methods. Prerequisite: FAS 112 with a grade of C or better.
Typically offered: Fall

FAS 220 - Apparel Analysis (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Analyzes construction standards and techniques used in the ready to wear market at various prices and quality levels. Emphasizes standard terminology necessary to describe and evaluate apparel. Basic sewing and research serves as a foundation for garment classifications, assembly and production. Prerequisite: FAS 107.
Typically offered: Fall

FAS 225 - Global Sourcing of Apparel and Textiles (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Defines global sourcing and provides an understanding of why and how companies participate in it. Explains how and where manufactured goods or components will be procured. Teaches that in today's global softgoods industry, sourcing has become a major competitive strategy for both manufacturers and retailers.
Typically offered: Spring

FAS 229 - Promotion of Fashion (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Introduces various techniques and methods to sell fashion. Helps to synthesize a number of skills such as critical and creative thinking, negotiating, teamwork, delegating and communication skills. Students will gain recognition and be responsible for team effort that is involved in the production of a fashion show.
Typically offered: Spring

FAS 230 - Fashion Forecasting (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Focuses on the social, economic, political and psychological forces that influence fashion. Research, recognize, and analyze predictive lifestyle and business trends that affect retail merchandising and marketing decisions. Introduces methods of forecasting fashion trends.Communicates and presents the forecast through creation of industry-based presentation material using current digital software. Prerequisite: GRA 101 with a grade of C or better.
Typically offered: Fall

FAS 245 - Topics in Fashion Design (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Studies selected problems or topics in fashion design. The exact content and instructional methodology will vary from semester to semester depending on the material to be studied. A syllabus or course outline containing additional information will be available with pre-registration materials each time that the course is offered Different topics may be selected and the course is repeatable to a maximum of nine credit hours. Prerequisite: Consent of instructor or department coordinator.

Financial Management (FIN)

FIN 101 - Financial Institution Operations (3 Credits)
3 lecture, 3 total contact hours
Presents an overview of the evolution of the U.S. banking system; the fundamentals of money and banking; operations of banks; the role of governmental regulatory agencies such as the Federal Reserve and the FDIC; consumer and business products and services; and international banking. Provides an examination of the functioning of our economic system emphasizing contemporary and regulatory issues that impact the future of the banking industry.
Typically offered: Fall, Spring

FIN 200 - Investment Management/Personal Finance (3 Credits)
3 lecture, 3 total contact hours
Introduces the student to the fundamentals of equity and fixed income investing. Explores other investment management subjects such as mutual funds, international investing and retirement planning as well as tax-advantaged investments. Basic derivatives such as futures and options will also be discussed.
Typically offered: Fall, Spring

FIN 215 - Financial Statements Interpretation and Analysis (3 Credits)
3 lecture, 3 total contact hours
Explores the characteristics of financial statements and financial statements analysis. Emphasis is on the income statement, balance sheet, and sources and uses of funds statement. Effects of reserves, inventory valuations, depreciation, depletion, amoritization, subsidiaries and affiliates are studied. Also addresses cash flow, reported earnings, taxable earnings and interpretation of the financial data by means of ratio analysis. Prerequisite: ACC 101 with a grade of C or better.
Typically offered: Fall, Spring

FIN 225 - International Finance (3 Credits)
3 lecture, 3 total contact hours
Emphasizes international trade financing. Presents mechanics of importing and exporting, credit and political considerations. Focuses on credit consideration, market product profiles, letters of credit, collection, credit information outside the United States and entry into these markets.
Typically offered: Fall, Spring

Fire Science (FIS)

FIS 100 - Fundamentals of Fire and Emergency Services (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides an overview of fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection/service; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local governmental; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; fire protection systems; introduction to fire strategy and tactics.
Start Smart
Typically offered: Fall, Spring

FIS 102 - Fire Service Management and Leadership (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Introduces the student to the role of the company officer. Provides an introduction to basic management theories, practices and functions with an emphasis on fire service leadership from the perspective of the company officer. Provides an introduction to the organization and management of a fire department and the relationship of government agencies to the fire service. Prerequisite: FIS 100 and FIS 121 with grades of C or better.
Typically offered: Fall, Spring

FIS 103 - Firefighting Strategies and Tactics (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Introduces basic principles and methods associated with fireground strategies and tactics as required of the company officer. Emphasizes the incident management system, fire behavior, basic firefighting size-up, pre-fire planning, engine company and truck company operations. Prerequisite: FIS 100 and FIS 121 with grades of C or better.
Typically offered: Fall, Spring

FIS 104 - Building Construction for Fire Protection (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Studies the components of building construction that relate to fire and life safety. Focuses on firefighter safety and the elements of construction and structure design as key factors when inspecting buildings, preplanning fire operations and operating at emergencies. Prerequisite: FIS 100 with a grade of C or better.
Typically offered: Fall, Spring

FIS 106 - Fire Service Career Exploration Practicum (1 Credit)
.5 lecture, 2 clinical/other, 2.5 total contact hours
Studies fire science career and employment possibilities in the fire service. Includes observation practices at various fire departments and attendance at a seminar to discuss related experiences. Students will gain an accurate perception of how their personal and professional goals match with the fire service, as well as learn about ways to reach their goals. Specifically, the course challenges student to look at their values, interests, and skills as they relate to a career in the fire service.
Typically offered: Fall, Spring, Summer

FIS 109 - Basic Firefighter Certification (12 Credits)
9 lecture, 6 lab, 15 total contact hours
Provides a member of a regularly constituted fire department within the State of Illinois with instruction and certification as a state-recognized Basic Operations Firefighter (Firefighter II). Satisfies the didactic and manipulative requirements for the Illinois Office of State Fire Marshall Basic Operations Firefighter (Firefighter II) certification course, meeting or exceeding the level identified in NFPA 1001. NOTE: Student must be a member of an Illinois fire department that has entered into a training agreement with Harper College. Prerequisite: FIS 103, FIS 104, FIS 122 and FIS 260 with grades of C or better AND consent of coordinator.
Typically offered: Fall, Spring, Summer

FIS 121 - Fire Behavior and Combustion (3 Credits)
3 lecture, 1 lab, 4 total contact hours
Explores the theories and principles of how and why fires start, spread, and are brought under control. Students will be able to relate the principles by which fires spread with the appropriate methods of control.
Typically offered: Fall, Spring

FIS 122 - Fire Prevention Principles (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, identification and correction of fire hazards, and the relationships of fire prevention with the built-in fire protection systems, fire investigation, and fire and life-safety education.
Typically offered: Fall, Spring

FIS 132 - Hazardous Materials (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Reviews basic chemistry, storage, handling, laws, standards and fire fighting practices pertaining to hazardous materials. Emphasis on identification, labeling, handling, firefighting, and mitigation of hazardous materials emergencies. Students who wish to satisfy the Illinois Office of the State Fire Marshall Certificate Requirements must successfully complete this course as well as the required practical skills evaluation prior to taking the state examination by the Authority Having Jurisdiction (A.H.J.).
Typically offered: Fall, Spring

FIS 145 - Fire and Emergency Services Instructor (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Services Instructor I (3-0) 3 hrs. Provides instruction to individuals in the fire and emergency services. Provides basic fundamentals in human relations in the teacher-student learning environment, methods of instruction and proper methods of writing lesson plans.
Typically offered: Fall, Spring

FIS 200 - Fire Service Internship (3 Credits)
1 lecture, 10 clinical/other, 11 total contact hours
Applies and expands fire science skills and knowledge in the workplace environment. Conducted under joint partnership agreements between Harper College and a host fire department. Regularly conducted review sessions will be conducted to assess the student's progress, problem areas, and to review appropriateness of work involvement. Actual permissible duties and activities will be determined based upon the student's qualifications and host department restrictions. Student must complete a minimum of 100 contact hours to earn 3 hours of credit. Appropriate skills to the fire science technology field. Prerequisite: FIS 100, FIS 103, FIS 121 and FIS 122 with grades of C or better.
Typically offered: Fall, Spring, Summer

FIS 210 - Fire-Arson Investigation (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides the identification of the nature and behavior of fire, combustion properties, sources of ignition, the techniques and procedures for the identification of the cause and origin of fires, the detection of arson, the role of the fire investigator, the role of the crime laboratory, arson law, and fire report writing. Prerequisite: FIS 100 and FIS 121 with grades of C or better.
Typically offered: Fall, Spring, Summer

FIS 212 - Fire Protection Systems (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides information relating to the features of design and operation of fire detection and alarm systems, heat and smoke control systems, special protection and sprinkler systems, water supply for fire protection and portable fire extinguishers. Prerequisite: FIS 100 with a grade of C or better.
Typically offered: Fall, Spring

FIS 230 - Fire and Emergency Services Law (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Enables the student to acquire a basic knowledge of the law in specified subject areas that directly or indirectly affect fire and emergency services by providing basic knowledge of the methodology through which to locate, read and comprehend various statutes, regulations, and cases that are the framework of the law.
Typically offered: Fall

FIS 240 - Fire Apparatus Engineer (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides students with a foundation of theoretical knowledge and psychomotor skills in order to understand principles of the use of water in fire protection and to apply hydraulic principles to analyze and solve water supply problems. Also provides students with the psychomotor requirements to satisfy the Illinois Office of State Fire Marshal Fire Apparatus Engineer Course. Evaluates students' ability to perform the manipulative functions required to properly operate a National Fire Protection Associate compliant fire apparatus in simulated fireground settings. Prerequisite: Placement into college-level mathematics without support. https://www.harpercollege.edu/testing/mathplacement.php
Typically offered: Summer

FIS 250 - Industrial Fire Protection (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Studies the recommended practices for protection of industrial properties and processes from fire, explosion and damage specific to certain types of public and private industry; including fire and accident prevention programs, identification of special hazards, fire protection equipment and systems, handling of emergencies, the development of policy, rules, and regulations, the inspection and investigation of accidents, and standardized record keeping.
Typically offered: Spring

FIS 260 - Emergency Services Safety (3 Credits)
3 lecture, 3 total contact hours
Provides a foundation of knowledge and understanding of safety as applied to emergency services. Examines the need for safety in the everyday performance of all aspects of their jobs and gain an understanding of the essential elements needed to reduce accidents and injuries.
Typically offered: Fall, Spring

FIS 270 - Fire Service Technical Rescue (3 Credits)
3 lecture, 3 total contact hours
Provides students with a primary focus on the operations-level situations to which fire service rescue squads are called. Focuses on various complex rescue scenarios that firefighters are exposed to on a regular and on-going basis. Conforms and meets NFPA Standard 1670 on Operations and Training for Technical Search and Rescue Incidents. Prerequisite: FIS 100 with a grade of C or better.
Typically offered: Spring

First Year Seminar (FYS)

FYS 101 - First Year Seminar (1-3 Credits)
1 - 3 lecture, 0 lab, 1 - 3 total contact hours
Please note: FYS sections are specific to a student's Area of Interest (AoI); please make sure that you are registering for the correct one. Thank you! Focuses on developing critical thinking and information literacy skills to make better-informed decisions regarding college and career planning. Special emphasis is given to the questions, methods, and career and college options relating to an area of academic or thematic interest. Additional information about material to be covered will be available with pre-registration materials each time that the course is offered.
Start Smart

French (FRN)

FRN 101 - Elementary French I (4 Credits)
4 lecture, 0 lab, 4 total contact hours
Develops listening, speaking, reading and writing skills in French. Introduces students to the other cultures and people of the French-speaking world. Designed for students with no previous experience in French. All new students who have prior experience with or have taken classees in Franch, should consult with the department for placement before registering for a course. Instructions can be found on the World Languages website. http://goforward.harpercollege.edu/academics/areas/liberal-arts/world-languages/placement-test.php
Typically offered: Fall

FRN 102 - Elementary French II (4 Credits)
4 lecture, 0 lab, 4 total contact hours

Continues to develop listening, speaking, reading and writing skills in French. Furthers the introduction to the cultures and people of the French-speaking world. All new students who have prior experience with or have taken classes in French, should consult wit the department for placement before registering for a course. Instructions can be found on the World Languages website. Prerequisite: FRN 101 with a grade of C or better, or required placement exam scores.

Typically offered: Spring

FRN 201 - Intermediate French I (4 Credits)
4 lecture, 0 lab, 4 total contact hours

Further develops reading, writing, speaking and listening skills in French. Students learn more complex structures of French grammar, fine-tune pronunciation, gain more advanced skills in composition, and continue to expand their vocabulary. Attention is given to complexity, accuracy and fluidity. Fosters expanded knowledge of and appreciation for the cultural heritage and history of French-speaking areas. All new students who have prior experience with or have taken classes in French, should consult with the department for placement before registering for a course. Instructions can be found on the World Languages website. Prerequisite: FRN 102 with a grade of C or better, or required placement exam scores.

Typically offered: Fall

FRN 202 - Intermediate French II (4 Credits)
4 lecture, 0 lab, 4 total contact hours

Provides a crucial bridge between intermediate and advanced language courses. Focuses on a more in-depth study of history, geography, literature and culture of French-speaking people. Includes analysis of daily life and current events. Students practice more complex structures of French grammar, fine-tune pronunciation, gain more advanced skills in composition, and continue to expand their vocabulary. Attention is given to complexity, accuracy and fluency. All new students who have prior experience with or have taken classes in French, should consult with the department for placement before registering for a course. Instructions can be found on the World Languages website. IAI H1 900 Prerequisite: FRN 201 with a grade of C or better, or required placement exam scores.

Typically offered: Spring

FRN 205 - French Conversation (3 Credits)
3 lecture, 0 lab, 3 total contact hours

Provides conversational practice beyond the intermediate level and refines spoken French skills to achieve fluency of expression. Includes the study of the culture of French-speaking people and critical analysis of daily life and current events. Attention is given to complexity, accuracy and fluency. Not available for credit to native speakers of French. All new students who have prioir experience with or have takenn classes in French, should consult with the department for placement before registering for a course. Instructions can be found on the World Languages website. Prerequisite: FRN 202 with a grade of C or better, or required placement exam scores.

Typically offered: Fall

FRN 210 - Introduction to French Literature (3 Credits)
3 lecture, 0 lab, 3 total contact hours

Provides an introduction to literature from the French-speaking world and exposes students to a variety of literary genres and eras. Focuses on the development of more complex use of the language and addresses speaking, listening, writing and reading. Attention is given to complexity, accuracy and fluency. IAI H3 917 Prerequisite: FRN 202 or equivalent with a grade of C or better, or required placement exam scores.

Typically offered: Spring

Geographic Information Systems (GIS)

GIS 100 - Introduction to Geospatial Technologies (3 Credits)
2 lecture, 2 lab, 4 total contact hours

Provides an introduction to geospatial technologies, such as Geographic Information Systems (GIS), Global Positioning Systems (GPS), and Remote Sensing through hands-on computer based exercises. The essential principles of map use and design, and spatial analysis are also included in this course. Fundamental desktop computer skills assumed. IAI S4 905

GIS 101 - Geospatial Data Acquisition and Management (3 Credits)
2 lecture, 2 lab, 4 total contact hours

Introduces the concepts and problem solving capabilities of Geographic Information Systems (GIS). Spatial data sourcing and management will be learned using information acquired in the field or from other sources. Spatial analysis concepts will be introduced through hands-on exercises using GIS software. Prerequisite: GIS 100 with a grade of C or better.

GIS 102 - Spatial Analysis (3 Credits)
2 lecture, 2 lab, 4 total contact hours

Continues GIS 101. Emphasizes the practical application of Geographic Information Systems (GIS) technology to solve problems and answer questions. Increases level of proficiency using GIS and performing spatial analysis of data. Introduces GIS operational and management issues. Prerequisite: GIS 101 with a grade of C or better.

GIS 103 - Applied Geospatial Technology (3 Credits)
2 lecture, 2 lab, 4 total contact hours

Consolidates the concepts and techniques acquired through prior coursework within the Geographic Information Systems (GIS) certificate. Students will analyze case studies, understand geospatial technology as a professional field, and apply geospatial technology methods and workflows in classroom projects. Prerequisite: GIS 102 with a grade of C or better.

GIS 104 - Geographic Information Systems Internship (1-3 Credits)
.5 - 1 lecture, 2.5 - 10 lab, 3 - 11 total contact hours

Provides a structured work experience in a supervised setting using GIS or other geospatial technologies. Students are exposed to the technical and managerial issues faced by a geospatial technician or analyst. Students prepare a written report at the end of the assignment. Prerequisite: GIS 100 with a grade of C or better, and consent of program coordinator.

GIS 200 - Introduction to Remote Sensing (3 Credits)
2 lecture, 2 lab, 4 total contact hours

Provides an introduction to remote sensing of the Earth. Topics include the physical principles upon which remote sensing is based; history and future directions; sensors and their characteristics; image data sources; image classification, interpretation and analysis techniques; and the integration of workflow outputs into GIS (Geographic Information Systems). Prerequisite: GIS 100 with a grade of C or better.

Geography (GEG)

GEG 100 - Cultural Geography (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides a systematic or regional introduction to the basic concepts of human geography using spatial analysis/awareness with both traditional and digital map analysis. Examines the causes and consequences of the uneven distribution of human activity, covering themes such as population, culture, economic activity, development, and urban patterns. IAI S4 900N
World Culture and Diversity
Typically offered: Fall, Spring, Summer

GEG 101 - World Regional Geography (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides a thematic or regional introduction to the basic concepts of how world regions are constructed or classified. Using spatial analysis of both traditional and digital maps, factors will be explored to assess how regions evolve and are classified. Concepts will explore both developed and undeveloped regions connecting both human and physical geographical factors shaping and defining the classification of regions and interrelationships between them. IAI S4 906
World Culture and Diversity
Typically offered: Fall, Spring, Summer

GEG 103 - The Developing World (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Examines the regions of the world conventionally called "developing" or emerging," including the spatial patterns of physical and cultural elements that impart unique identities within these regions using both digital and traditional maps to explore complex geopolitical relations and/or international conflicts among developing regions of the world. IAI S4 902N
World Culture and Diversity
Typically offered: Fall, Spring, Summer

GEG 104 - The Developed World (3 Credits)
3 lecture, 3 total contact hours
Examines the regions of the world conventionally called "industrialized" or developed," including the spatial patterns of physical, cultural elements, and/or international conflicts that impart unique identities within these regions. Uses spatial analysis of both digital and traditional maps to promote critical thinking of complex geographic relationships among regions of the world. IAI S4 901
World Culture and Diversity
Typically offered: Spring, Summer

GEG 111 - Physical Geography (3 Credits)
3 lecture, 3 total contact hours
Examines the spatial distribution of elements of Earth's four physical spheres: the atmosphere, the hydrosphere, the lithosphere, and the biosphere including landforms, climates, weather, vegetation, and soils. Consideration is given to the causes of these distributions and to their effects on human populations. IAI P1 909
Typically offered: Fall, Spring, Summer

GEG 112 - Physical Geography Laboratory (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Applies the scientific method of observation, hypothesis formation, and experimentation to Earth's four physical spheres: the atmosphere, the hydrosphere, the lithosphere, and the biosphere. IAI P1 909L Prerequisite: Prior or concurrent enrollment in GEG 111 with a grade of C or better.
Typically offered: Fall, Spring, Summer

German (GER)

GER 101 - Elementary German I (4 Credits)
4 lecture, 0 lab, 4 total contact hours
Develops listening, speaking, reading and writing skills in German. Introduces students to the cultures and people of the German-speaking world. Designed for students with no previous experience in German. All new students who have prior experience with or have taken classes in German should consult with the department for placement before registering for a course. Instructions can be found on the World Languages website. http://goforward.harpercollege.edu/academics/areas/liberal-arts/world-languages/placement-test.php
Typically offered: Fall

GER 102 - Elementary German II (4 Credits)
4 lecture, 0 lab, 4 total contact hours
Continues to develop listening, speaking, reading and writing skills in German. Furthers the introduction to the cultures and people of the German-spaeaking world. All new students who have prior experience with or have taken classes in German should consult with the department for placement before registering for a course. Instructions can be found on the World Languages website. Prerequisite: GER 101 with a grade of C or better, or required placement exam scores.
Typically offered: Spring

GER 201 - Intermediate German I (4 Credits)
4 lecture, 0 lab, 4 total contact hours
Further develops reading, writing, speaking and listening skills in German. Students learn more complex structures of German grammar, fine-tune pronunciation, gain more advanced skills in composition and continue to expand their vacabulary. Attention is given to complexity, accuracy and fluidity. Fosters expanded knowledge of and appreciation for the cultural heritage and history of German-speaking areas. All new students who have prior experience with or have taken classes in German, showld consult with the department for placement before registering for a course. Instructions can be found on the World Languages website. Prerequisite: GER 102 with a grade of C or better, or required placement exam scores.
Typically offered: Fall

GER 202 - Intermediate German II (4 Credits)
4 lecture, 0 lab, 4 total contact hours
Provides a crucial bridge between intermediate and advanced language courses. Focuses on a more in-depth study of history, geography, literature and culture of German-speaking people. Includes analysis of daily life and current events. Students practice more complex structures of German grammar, fine-tune pronunciation, gain more advanced skills in composition and continue to expand their vocabulary. Attention is given to complexity, accuracy and fluency. All new students who have priori experience with or have taken classes in German, should consult with the department for placement before registering for a course. Instructions can be found on the World Languages website. IAI H1 900 Prerequisite: GER 201 with a grade of C or better, or required placement exam scores.
Typically offered: Spring

GER 205 - German Conversation (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides conversational practice beyond the intermediate level and refines spoken German skills to achieve fluency of expression. includes the study of the culture of German-speaking people and critical analysis of daily life and current events. Attentions is given to complexity, accuracy and fluency. Not available for credit to native speakers of German. Prerequisite: GER 202 with a grade of C or better, or required placement exam scores.
World Culture and Diversity
Typically offered: Fall

GER 210 - Introduction to German Literature (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides an introduction to literature from the German-speaking world and exposes students to a variety of literary genres and eras. Focuses on the development of more complex use of the language and addresses speaking, listening, writing and reading. Attention is given to complexity, accuracy and fluency. IAI H3 917 Prerequisite: GER 202 with a grade of C or better, or required placement exam scores.
World Culture and Diversity
Typically offered: Spring

GER 230 - German Civilization and Culture (3 Credits)
3 lecture, 3 total contact hours
Introduces students to multiple aspects of German culture and civilization from the 20th century to today. Familiarizes students with history, political institutions, economic development, literature, art and culture of Germany. Gives students an overview of the German-speaking regions of Austria, Switzerland and Lichtenstein. This course will be taught in English.
World Culture and Diversity
Typically offered: Spring

Graphic Arts Technology (GRA)

GRA 101 - Introduction to Graphic Arts Technology (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides students an overview of past, present and future graphic arts processes including graphic applications for design/layout, imaging, photography, prepress, print and finishing. Direction is provided on occupations in the Graphic Arts industry and the use of digital applications related to producing print materials. Provides a hands-on understanding of desktop publishing software through lab and lecture.
Typically offered: Fall, Spring, Summer

GRA 102 - Graphic Arts Desktop Publishing (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Presents a clear understanding of graphic desktop software and their many functions in the printing industry. Provides hands-on training using the most current desktop publishing software. Focuses on project work, page layouts and output functions. Prerequisite: Prior or concurrent enrollment in GRA 101.
Typically offered: Fall, Spring, Summer

GRA 103 - Digital Imaging I (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Covers fundamentals of professional image-editing software (Adobe Photoshop). Emphasizes skills to manipulate photos using current software tools and special effects filters. Explores program tools, color correction, channels, layers and masks. Strong computer skills are required for success in this course.
Typically offered: Fall, Spring, Summer

GRA 105 - Color Management (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Examines the fundamentals of real-world color theory and management, throughout the entire graphic arts process. Students will explore all color management techniques of input and output devices as well as tools and concepts for successful color control. Focuses on internal workings and technology in color management systems, building a closed-loop workflow. Covers color fidelity, models, and the understanding on how devices interpret and deliver. Prerequisite: GRA 101 or GRA 103 with a grade of C or better.
Typically offered: Fall, Spring

GRA 111 - Print Media Production (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Covers fundamentals of offset printing as well as new technologies in the digital print arena. Provides knowledge of press maintenance and safety, feeder systems, registration requirements, ink systems and color management tools and techniques in the print industry. Prior or concurrent enrollment in GRA 101.
Typically offered: Fall, Spring

GRA 112 - Digital Illustration I (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Presents vector graphics software and its applications to the graphic arts industry. Explores tools and functions within the current software. Focuses on creating illustrations, working with type, color, and all tools needed to create multi-colored illustration and separation. Emphasizes techniques to create illustration files for use in digital print production. Strong computer skills are required for success in this course.
Typically offered: Fall, Spring, Summer

GRA 113 - Digital Imaging II (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Covers advanced functions of digital image-editing software. Emphasizes advanced software functionality, color correction and color management needs as well as commercial imaging practices in a prepress environment. Focuses on different types of image capture and file manipulation. Prerequisite: GRA 103 with a grade of C or better.
Typically offered: Fall, Spring

GRA 120 - Graphic Design I (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Focuses on beginning fundamentals of graphic design utilizing all design principles and involves an overview of design and layout rendering techniques. Focuses on typography, images and graphics, utilizing design processes (including research and sketching), and current graphic software for print. Projects are critiqued for aesthetics and production for print. Prerequisite: GRA 102 with a grade of C or better.
Typically offered: Fall, Spring

GRA 130 - Introduction to Photography (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Explores beginning fundamentals of photography, its history, and the development of photography in both commercial and creative usage. Presents a past and present use of photography focusing on techniques and applications in a conventional camera-based environment emphasizing the digital photographic arena.
Typically offered: Fall, Spring, Summer

GRA 131 - Digital Photography I (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Explores the techniques and applications of digital image capture, manipulating images in Photoshop and outputting digital images. Focuses on the technical aspect of digital photography, lighting needs, application use and color management basics. Project based instruction utilizing basic photographic concepts, commercially and creatively. A DSLR camera is required for this course. Prerequisite: GRA 130 with a grade of C or better.
Typically offered: Fall, Spring

GRA 145 - Wordpress and Mobile Technologies (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Introduces the student to WordPress fundamentals to create basic web pages. Hands-on computer activity includes WordPress templates, dashboard and widget usage; blogging/posts; adding links, videos, photo galleries; creating user accounts; and theme changes. Students will also learn to translate the WordPress full web site into a mobile website and will integrate with social media platforms. An introduction to UI (user interface) design will be explored for mobile applications. Prerequisite: GRA 101 or WEB 110 or WEB 150 with a grade of C or better, or consent of program coordinator.
Typically offered: Fall, Spring

GRA 211 - Project Management, Scheduling and Estimating (3 Credits)
3 lecture, 3 total contact hours
Provides essential information needed to estimate, schedule, and project manage a print job. Analyzes cost calculations of various functions within the graphic arts industry. Covers workflow, scheduling, and quantity estimation to produce a quality document. Explores CSR (Customer Service Representative) roles in graphic arts workflow. Prerequisite: GRA 101 with a grade of C or better.
Typically offered: Fall, Spring

GRA 213 - Packaging, Finishing and Distribution (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides instruction on manufacturing processes and techniques for various types of print graphics with an emphasis on 3D packaging. Studies production practices, material usage, flexography process, finishing and distribution processes and environmental/sustainability trends. Covers the interaction between products and the many roles that packaging plays in the supply chain. Presents methods of postal requirements, barcoding, how products get to market, costs, manufacturing needs and delivery of said product. Prerequisite: GRA 111 or GRA 222 with a grade of C or better, or consent of program coordinator.
Typically offered: Fall, Spring

GRA 214 - Digital Illustration II (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Explores advanced vector illustration graphic software in the graphic arts industry. Focuses on prepress techniques and print production uses. Includes an understanding of four-color print production requirements and advanced menus/tools. Prerequisite: GRA 112 with a grade of C or better.
Typically offered: Spring

GRA 220 - Graphic Design II (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Teaches advanced graphic design that is project- and process-focused to refine creative and technical skills. Projects will follow the design process from initial research and sketches to refined computer layouts and final production-ready art files. Assignments will utilize graphic design principles and current graphic software. Projects are critiqued for design process, aesthetics, presentation and file production accuracy. Projects may become part of a professional portfolio. Prerequisite: GRA 120 with a grade of C or better.
Typically offered: Fall, Spring

GRA 221 - Graphic Portfolio Design (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Covers preparation of portfolio book and digital portfolio presentation. Focus is on the understanding of the professional portfolio needs and its presentation in the graphic design job market. Existing projects are critiqued for aesthetics, arrangement and presentation. Graphic resume preparation. Prerequisite: GRA 120 with a grade of C or better.
Typically offered: Fall, Spring

GRA 222 - Package Design (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides instruction on marketing and branding strategies and the design of packaging products. Studies packaging structural implications and substrates as well as design and production for 3D packaging such as folding cartons, flexible bags, labels and shrink sleeves. Covers barcoding and postal preparation and standards; works with supplied CAD structures. Emphasizes the creative visual design of 3D packaging and prototype creation; focuses on the file production through manufacturing requirements of the packaging industry. Prerequisite: GRA 112 with a grade of C or better.
Typically offered: Fall, Spring

GRA 229 - Page Layout (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Explores advanced multi-page layout techniques in InDesign software. Projects focus on creating documents that follow industry standards and best practice for print graphics. Emphasis is placed on projects for print and preflighting techniques. Prerequisite: GRA 102 with a grade of C or bxetter.
Typically offered: Fall, Spring

GRA 230 - Prepress and Digital Front End (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Covers prepress procedures, including preflight and digital front end. Includes standard operating procedures for trapping, barcodes, postal regulations, screening, color separations, step and repeat, RIP, color management, prepress automation, and working with dielines. Real world file preparation, printing methods, ink and color space utilized. Will assess proofing and plating, process control, and quality control. Includes understanding of PDF requirements for file exchange. Prerequisite: Prior or concurrent enrollment in GRA 102.
Typically offered: Fall, Spring

GRA 231 - Personalized Marketing (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Covers selected topics utilizing digital print technologies. Studies variable data applications, data management and cross media web-to-print solutions for the graphic arts industry. Includes aspects of personalized and customized data and marketing through text and images for print, web, email and phone delivery. Covers application training and utilization through output and trends, VDP procedures and languages, postal specifications and bindery needs. Prerequisite: Prior or concurrent enrollment in GRA 102.
Typically offered: Fall, Spring

GRA 232 - Digital Photography II (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Explores advanced techniques and applications of digital image capture, concentrating on application uses and output. Focuses on different types of digital photography in the graphic arts arena, from product shots, food, fashion and location techniques. Investigates different equipment and color management in a commercial studio environment. A DSLR camera is required for this course. Prerequisite: GRA 131 with a grade of C or better.
Typically offered: Spring

GRA 233 - Integrated Digital Printing (3 Credits)
1 lecture, 4 lab, 5 total contact hours
This course will explore the digital print market in commercial environments. Wide format and digital presses will be calibrated and analyzed for quality output. Automation and prepress techniques will be reviewed prior to printing to assure quality input. Emphasizes understanding and incorporating emerging technologies into the production workflow. Students work from design and conception through all aspects of preparation, production, and finishing. Recommended to take Prepress and Digital Front End prior to enrolling in this course. Prerequisite: Prior or concurrent enrollment in GRA 101.
Typically offered: Fall, Spring

GRA 235 - Digital Photography Post-Production (3 Credits)
2 lecture, 2 lab, 4 total contact hours
To learn advanced digital editing techniques in post-production using client provided images and Photoshop software. Students will learn workflow efficiency to achieve client needs. Provides the student with experience to work with clients in a commercial setting. Prerequisite: Prior or concurrent enrollment in GRA 232.
Typically offered: Fall, Spring

GRA 299 - Digital Photography Capstone (3 Credits)
0 lecture, 15 lab, 15 total contact hours
Provides the digital photography student with a broad educational experience through observation and participation in an industry environment. Students gain hands-on experience by being assigned to a commercial photography company. Students will be supervised by an industry professional and must report on every work session. Prerequisite: Prior or concurrent enrollment in GRA 232 and consent of coordinator.
Typically offered: Fall, Spring

Health Education (HED)

HED 107 - Stress and Stress Management (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Analyzes the impact stress has on the dimensions of wellness. This course examines the physiological and psychological responses to stress and discusses ways stress contributes to morbidity and mortality. You will learn how to better recognize your own stressors and identify ways to manage stress.

HED 200 - Health (3 Credits)
3 lecture, 3 total contact hours
Provides an in-depth look at the physical, psychological, emotional, social, spiritual and environmental factors which contribute to the overall quality of a person's life. An investigation of how our lifestyle compares with other people in the world and the role and impact of the World Health Organization is emphasized. Mental health, nutrition, fitness, communicable and non-communicable diseases, killer diseases, drugs, human sexuality, family living (marriage, divorce, parenting), middle and old age issues, and death and dying are some of the topics covered. Physical and psychological assessments are included in this class.
World Culture and Diversity
Typically offered: Fall, Spring, Summer

HED 201 - Drugs in Our Culture (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Presents materials that examine the physiological, psychological and sociological aspects of drug use and abuse. Provides a potpourri of the facts, attitudes and opinions necessary to understand what drugs do, how they do it, who uses them and why. Discusses treatment modalities as well as legal and ethical issues in drug abuse.
Typically offered: Spring, Summer

HED 202 - Human Sexuality (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Introduces students to the sociological, psychological, biological and emotional implications of human sexuality. Includes sexual orientation, gender identity, sexually transmitted infections, contraception, and reproductive anatomy as well as other topics related to the field of human sexuality. Emphasizes exploring attitudes regarding sexual issues, clarifications of personal beliefs and development of healthy sexual behavior. IAI S9 903
World Culture and Diversity
Typically offered: Fall, Spring, Summer

HED 204 - Women's Health (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Focuses on health issues as they pertain to women and the barriers unique to women in gaining a higher status. Includes physical, mental and spiritual aspects of health; women's anatomy and physiology; pregnancy, childbirth and infertility; violence against women; body image and eating disorders; and societal, historical and poliitcal influences of the global woman. Discusses the detection, treatment and illnesses in women. (formerly PED 271)
World Culture and Diversity
Typically offered: Fall

HED 206 - Introduction to Community and Public Health (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Focuses on the functions of community health organizations and the way they relate to individual health needs. Helps students to analyze and evaluate health promotion practices at the community level. Examines the historical and contemporary public health stories to begin to understand the contexts, systems, professions, tools and skills associated with the public health enterprise. Students will learn basic public health principles and will recognize an array of factors that shape both the health of individuals and populations.
Typically offered: Spring

HED 207 - Stress and Stress Management (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Analyzes the impact stress has on the dimensions of wellness. This course examines the physiological and psychological responses to stress and discusses ways stress contributes to morbidity and mortality. You will learn how to better recognize your own stressors and identify ways to manage stress.
Typically offered: Fall

HED 250 - Topics in Health Education (1-3 Credits)
1 - 3 lecture, 0 lab, 1 - 3 total contact hours
Provides students with an opportunity to examine different topics that fall under the health education field. Content will change from semester to semester. A course outline will be available for the topic prior to registration. This course may be taken twice up to a maximum of six credit hours.
Typically offered: Fall, Spring, Summer

Health Information Technology (HIT)

HIT 125 - Healthcare Data Structure, Content and Standards (2 Credits)
2 lecture, 1 lab, 3 total contact hours
Introduces students to healthcare delivery systems and health information functions, purposes and users. Examines health record content and documentation requirements that support organizational, regulatory and accreditation standards. Investigates clinical terminologies, classifications, and code systems. Explores primary and secondary health data sources and users. Identifies data governance and data management practices that ensure the accuracy and integrity of health data. This course is limited to students in the Health Information Technology AAS program.
Typically offered: Fall

HIT 150 - Health Information Protection, Analysis, and Technology (2 Credits)
2 lecture, 1 lab, 3 total contact hours
Introduces health law and the legal health record. Explores concepts of data privacy, confidentiality, and security. Identifies health information technologies used in a variety of healthcare settings and discusses how these technologies are utilized in the management and exchange of health information. Calculates, analyzes and prepares graphical presentations of administrative and clinical statistical data. Prerequisite: HIT 125 with a grade of C or better.
Typically offered: Fall

HIT 165 - Pathopharmacology for Health Information Professionals (3 Credits)
3 lecture, 1 lab, 4 total contact hours
Introduces basic concepts and mechanism of disease. Examines signs, symptoms, and the disease process by body system in conjunction with associated medications used in treatment. Correlates clinical manifestations of disease with health record documentation. Interprets medical record documentation for assignment of diagnostic codes. Prerequisite: BIO 135 and HIT 125 with grades of C or better.
Typically offered: Spring

HIT 175 - Revenue Management, Compliance, and Leadership (2 Credits)
2 lecture, 1 lab, 3 total contact hours
Discusses all phases of the revenue cycle. Considers various types of healthcare insurance including commercial insurance, managed care, and government-sponsored healthcare plans. Explores healthcare reimbursement methodologies. Identifies the elements of a compliance program and examines the associated legal and regulatory requirements. Emphasizes leadership roles and management processes. Prerequisite: HIT 125 with a grade of C or better.
Typically offered: Spring

HIT 196 - Current Procedural Terminology (CPT) Coding (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Examines and interprets health record documentation, conventions and guidelines for the Healthcare Common Procedure Coding System (HCPCS). HCPCS Level I (Current Procedural Terminology (CPT) and HCPCS Level II (National Codes) are utilized to represent procedures provided in the ambulatory care setting and services rendered by providers across all healthcare settings. Emphasis is on the six sections of the CPT Coding Manual. Prerequisite: HIT 125, HIT 165, and HSC 112 with grades of C or better.
Typically offered: Summer

HIT 197 - International Classification Of Disease (ICD) Coding (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Examines and interprets health record documentation, conventions and guidelines for the current International Classification of Diseases (ICD) in use in the United States. ICB codes capture information related to diagnoses documented in all healthcare settings and procedures provided in the inpatient setting. ICD codes are utilized for statistical purposes, quality reporting and reimbursement. Basic and intermediate coding scenarios are analyzed and interpreted in compliance with office guidelines and ethical coding practices. Reimbursement considerations are explored. Prerequisite: HIT 125, HIT 165, and HSC 112 with grades of C or better.
Typically offered: Fall

HIT 199 - Health Care Reimbursement (3 Credits)
3 lecture, 3 total contact hours
Explores the complex processes involved in reimbursement of healthcare services. Examines voluntary healthcare insurance plans, government-sponsored healthcare programs, managed care plans and prospective payment systems. Outlines the characteristics of value-based purchasing and pay-for-performance systems. Emphasizes the importance of revenue cycle management on the financial viability of healthcare organizations. Prerequisite: HIT 125, HIT 150, and HIT 175 with grades of C or better.
Typically offered: Fall

HIT 225 - Electronic Health Records for Health Information Systems (3 Credits)
3 lecture, 1 lab, 4 total contact hours
Explores the tools available in the Electronic Health Record (EHR) to improve patient care, increase patient safety, and decrease health disparities. Investigates the use of databases, data repositories, and data warehouses in healthcare. Considers the steps in the system selection and implementation process. Examines the role of decision support systems and other administrative systems that impact health information management. Differentiates between various clinical information systems and identify how each impacts patient care. Investigates models and methods for health information exchange. Discusses the necessity of standards in health information technology and policies, procedures and practices to secure protected health information. Prerequisite: HIT 125, HIT 150, and HIT 175 with grades of C or better.
Typically offered: Fall

HIT 230 - Health Care Information Analysis (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Utilizes primary and secondary data sources in the application and interpretation of healthcare statistical formulas. Reviews basic research principles and contrasts descriptive, predictive and prescriptive data analytics. Explores measures of healthcare quality and the reporting of facility-wide outcomes for quality management. Utilizes process improvement tools and techniques. Examines continuous monitoring and improvement functions to enhance customer safety and satisfaction, refine the continuum of care, decrease risk exposure and manage the environment of care. NOTE: This course is only offered in the fall. Prerequisite: HIT 125, HIT 150, and HIT 175 with grades of C or better.
Typically offered: Fall

HIT 235 - Advanced Medical Coding (4 Credits)
3 lecture, 2 lab, 5 total contact hours
Examines complex areas of International Classification of Disease (ICD) and Current Procedural Coding (CPT) utilizing patient records from a wide variety of healthcare settings. Extensive use of encoder software and electronic coding references. Explores coding quality and compliance, regulatory issues and revenue cycles considerations. NOTE: This course is only offered in the spring. Prerequisite: HIT 199 with a grade of C or better.
Typically offered: Spring

HIT 240 - Health Information Technology Externship (2 Credits)
1 lecture, 5 lab, 6 total contact hours
Provides a Professional Practice Experience (PPE) coordinated by the program and designed to reinforce instruction. Each student completes a minimum of 40 hours at a practice site and/or remotely with external supervision by a health information professional. Software simulation activities may be used to supplement, but not replace, the externally supervised experience(s). Emphasizes the practice of higher-level competencies developed through prior coursework. Includes opportunities to discuss and process the externship experience, to develop workforce readiness, and to prepare and practice for the Registered Health Information Technician (RHIT) exam. NOTE: This course is taken in the final semester of the AAS degree progression and all required HIT coursework must be completed or be enrolled in prior to registering for an externship. There will be no online registration for this course; program coordinator approval is required. A criminal background check and health requirements must be met as well. Corequisite: HIT 299.
Typically offered: Spring

HIT 250 - Law for Health Information (3 Credits)
3 lecture, 3 total contact hours
Examines the legal and ethical issues involved in protecting the privacy, confidentiality and security of health information. Explores the maintenance, content, documentation and disposition of the legal health record. Analyzes the HIPAA Privacy Rule with regard to individual rights and penalties for non-compliance. Identifies the purpose and scope of the HIPAA Security Rule and outlines penalties for non-compliance. Applies legal requirements for the proper release of information and the mandatory disclosure to public health authorities. Explores issues of risk management, corporate compliance and workplace law. Prerequisite: HIT 125, HIT 150, and HIT 175 with grades of C or better.
Typically offered: Spring

HIT 299 - Health Information Technology Capstone (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Integrates all coursework in the HIT AAS degree program and guides the development of a capstone project. Surveys emerging topics and trends in the industry. Explores supervisory and leadership roles, methods and tools. Deepens cultural awareness and examines the extent to which policies and procedures support diversity in healthcare delivery systems and in the workplace. NOTE: This course is taken in the final semester and all required HIT coursework for the AAS degree must be completed or enrolled in prior to registering for this class. There will be no online registration for this course; program coordinator approval is required. Corequisite: HIT 240.
Typically offered: Spring

Health Science Core (HSC)

HSC 104 - Health Care Technology and Informatics (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Introduces student to informatics and the use of technology in health care delivery systems. This includes a review of hardware and software, and an in-depth look at hospital/health care-based user interfaces, data bases, telecommunications and networks, and healthcare-based information systems. Also includes research methods and patient education via computers.
Typically offered: Fall, Spring, Summer

HSC 105 - Introduction to Health Care Today (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Familiarizes student to the health care delivery system including an introduction to the organization, structure, function and issues related to the health care environment. Emphasis placed on the importance of effective communication skills for health care professionals, team building, professionalism and diversity in the health care center.
Typically offered: Fall, Spring

HSC 106 - Health Occupations Career Observation (1.5 Credits)
.5 lecture, 2 lab, 2.5 total contact hours
Provides students an opportunity to observe selected occupations within a health care setting. The student will attend 13 two-hour sessions under the supervision of the instructor and departmental specific mentors. Prerequisite: Prior or concurrent enrollment in HSC 105 with a grade of C or better, or one semester of high school anatomy with lab with a grade of C or better.
Typically offered: Fall, Summer

HSC 112 - Medical Terminology (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Emphasizes the origin and the basic structure of medical words, including prefixes, suffixes, word roots, combining forms and plurals. Offers pronunciation, spelling, and definition of medical terms based on the body systems approach. Emphasis on rendering a professional vocabulary required for work in the health care field.
Typically offered: Fall, Spring, Summer

HSC 165 - Basic Pharmacology (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Examines the mechanism of action of the major medication groups as they relate to the physiology and pathology of disease. Identifies examples in each major pharmacological category in order to understand pharmacological activity within each group. Addresses areas of drug action, clinical application, and adverse events for each medication discussed. Intended for students in allied health majors. Prerequisite: Prior or concurrent enrollment in BIO 135, BIO 260 or HSC 112 with a grade of C or better.
Typically offered: Fall, Spring, Summer

HSC 213 - Legal and Ethical Issues in Health Care (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Introduces the legal and ethical issues that pertain to various health care delivery settings. Discusses how these issues impact the health care practitioner in a diverse culture. Practices and standards are discussed as they relate to professional behavior and ethical decision-making.
Typically offered: Fall, Spring, Summer

HSC 225 - Language and Health (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides an introduction to the study and application of concepts and theories from Linguistics and Health Communication. Focuses on practical applications of effective communication strategies across diverse patient populations by discussing case studies from different healthcare settings, and by analyzing actual provider-patient interactions to understand how specific language choices contribute to constructing meaning in health communication. Includes a strong focus on patients' perspectives regarding language use and culture-specific characteristics surrounding illness and personal identity, patient advocacy, cooperation, and consent. (Also listed as LNG 225. Credit will be given for LNG 225 or HSC 225, but not both.)
Typically offered: Fall, Spring

Heating, Ventilation, Air Cond (HVA)

HVA 101 - Refrigeration Fundamentals (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Introduces vocabulary, concepts and scientific principles used in the refrigeration and air conditioning industry. Studies theories on heat laws, pressures, matter and energy; examines refrigerant chemistry and the refrigeration cycle. Covers proper refrigerant management techniques and safe practices. Emphasizes practical application, troubleshooting techniques, measuring and testing the operation of the basic refrigeration cycle; includes working with ACR copper tubing, tools and instruments. Prerequisite: MTH 100, MTH 101 or higher.
Start Smart
Typically offered: Fall, Spring, Summer

HVA 102 - Refrigeration Systems (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Builds on concepts learned in HVA 101. Introduces specialized system controls and accessories found in commercial refrigeration systems. Covers pressure and temperature controls, water-cooled condensers, commercial defrosting, and piping practices. Emphasizes practical application to develop diagnostic and troubleshooting techniques, interpret wiring diagrams, service, and repair including working with zero ODP refrigerants used in cmmercial systems application. Prerequisite: HVA 101 with a grade of C or better.
Typically offered: Fall, Spring, Summer

HVA 103 - Heating Principles (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Introduces vocabulary, concepts and scientific principles used in the heating industry. Studies heat laws, heat transfer, and examines fundamentals of the combustion process. Covers gas, oil and electric forced-air systems for residential comfort heating. Emphasizes practical application for testing and adjusting system performance, troubleshooting electrical systems and control, working with gas pipe, preventative maintenance, service and repair. Prerequisite: MTH 100, MTH 101 or higher.
Start Smart
Typically offered: Fall, Spring, Summer

HVA 104 - Residential Comfort Systems (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Builds on concepts learned in HVA 101, HVA 103 and HVA 105. Incorporates additional system accessories and controls used to improve indoor air quality (IAQ). Examines psychrometrics principles, air flow measurements and basic residential air distribution systems. Emphasizes installation of residential HVAC systems, accessories and controls; includes basic concepts of duct design, sheet metal fabrication and installation. Prerequisite: Prior or concurrent enrollment in HVA 103 (Heating Principles) with a grade of C or better, or consent of coordinator.
Typically offered: Fall, Spring, Summer

HVA 105 - Heating and Cooling Controls (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Introduces electrical principles and concepts, electrical safety, electrical controls and electrical wiring diagrams utilized in residential and light commercial HVAC systems. Covers electrical symbols, Ohms' Law, series and parallel circuits, power distribution, magnetism, transformers, switches, relays, contactors, AC motors, motor starters and capacitors. Emphasizes the practical application for electrical system diagnosing; measuring volts, ohms and amps; troubleshooting testing and adjusting electrical controls; interpreting wiring schematics; and wiring electrical circuits. Prerequisite: MTH 100, MTH 101 or higher.
Typically offered: Fall, Spring

HVA 106 - Pneumatic Controls Systems (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Builds on concepts learned in HVA 105. Introduces pneumatic system controls and accessories found in commercial heating and air conditioning systems, and variable/constant air volume air handling units. Covers pneumatic relays, dampers, valve actuators, controller receivers, temperature and humidity controls, and air compressors. Emphasizes practical application to develop diagnostic and troubleshooting techniques, focusing on interpreting pneumatic diagrams, testing and measuring system components, service, repair and installation; and introduces commercial heating and cooling systems. Prerequisite: HVA 105 with a grade of c or better.
Typically offered: Spring

HVA 107 - Commercial Air Conditioning Systems (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Builds on concepts learned in HVA 101, HVA 105 and HVA 106. Focuses on air conditioning systems used in commercial buildings and their applications. Studies direct expansion systems, package units, and chilled-water systems. Covers rooftop units, variable refrigerant flow systems, air handling units, chillers and cooling towers. Emphasizes practical application to develop troubleshooting techniques, perform system diagnostic/installation/preventive maintenance service and repairs. Includes fundamentals of air conditioning absorbers. Prerequisite: HVA 101, HVA 105 and HVA 108 with grades of C or better, and prior or concurrent enrollment in HVA 106 with a grade of C or better.
Typically offered: Spring

HVA 108 - Domestic Refrigeration Appliances (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Builds on concepts learned in HVA 101 and HVA 105. Introduces the application of the refrigeration cycle in respect to small appliances. Covers refrigerators, air conditioning and fundamentals of heat pump operations. Reviews work-safe practices, electrical systems diagnostics, proper refrigerant handline and charging techniques, brazing and soldering copper tubing. Emphasizes practical application, operation, installation, maintenance, service and repair. Prerequisite: HVA 101 with a grade of C or better, and concurrent or prior enrollment in HVA 105 with a grade of C or better.
Typically offered: Fall, Spring, Summer

HVA 109 - Commercial Heating Systems (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Builds on concepts learned in HVA 103, HVA 105 and HVA 106. Introduces low pressure steam and hot water boilers used in commercial heating. Studies heat laws, heat transfer theories, and examines the combustion process of gas, oil and coal. Covers boiler construction, boiler safe operating practices, pressure controls, and steam systems' accessories. Includes hydronic piping systems, circulating pumps and water treatment. Emphasizes practical application for boiler operation, preventive maintenance and service. Prerequisite: HVA 103, HVA 105 and HVA 106 with grades of C or better.
Typically offered: Spring

HVA 110 - Blueprints and Plans for HVAC (2 Credits)
2 lecture, 1 lab, 3 total contact hours
Provides an introduction to architectural blueprints and mechanical drawings specific to HVAC systems. Examines types of construction, construction materials and working drawings. Emphasizes reading and interpreting architectural prints and mechanical drawings used in residential and commercial building. Covers mechanical, air distribution, electrical and plumbing systems. Includes an introduction to load calculations. Prerequisite: Prior or concurrent enrollment in HVA 107 and HVA 109 with grades of C or better.
Typically offered: Fall

HVA 200 - HVAC/R Mechanical Codes and Standards (2 Credits)
2 lecture, 1 lab, 3 total contact hours
Examines HVAC systems code requirements for residential and light commercial buildings. Includes application of energy conservation standards, principles of building inspections, and proper equipment installation practices to discern code violations. Emphasizes practical application of safe practices, equipment layout, minimum installation requirements and legal ramifications for code violations. Prerequisite: HVA 110 with a grade of C or better.
Typically offered: Spring

HVA 201 - Refrigeration System Design (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Builds on concepts learned in HVA 101, HVA 102 and HVA 108. Examines the thermodynamic properties of refrigerants and their application for refrigeration system design. Covers factors in the selection of systems components including compressors, evaporators, condensers, metering devices and accessories used in commercial refrigeration systems. Studies the application of refrigerant line sizing selection. Prerequisite: HVA 102 and HVA 108 with grades of C or better.
Typically offered: Fall, Spring, Summer

HVA 203 - Load Calculations (2 Credits)
2 lecture, 1 lab, 3 total contact hours
Studies methods used to calculate heat loss and heat gain for residential and light commercial structures to use to determine heating and cooling loads. Examines outdoor design temperature conditions, location, infiltration loads, composite material U-values and R-values. Emphasizes practical application for calculating building loads for equipment selection by performing load calculation using charts and data analysis from the Air Conditioning Contractors of America Manual J, abridged edition. Prerequisite: HVA 110 with a grade of C or better.
Typically offered: Fall

HVA 204 - Air Distribution (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Studies priorities of air flow for residential and light commercial structures to design HVAC duct systems for efficient air distribution. Covers duct sizing principles, air distribution systems, duct materials, system performance, blower performance, and grill selection. Emphasizes practical application for residential duct sizing by using charts and data analysis from the Air Conditioning Contractors of Americia Manual D. Includes performing duct testing and air balancing procedures. Prerequisite: Prior or concurrent enrollment in HVA 203 with a grade of C or better.
Typically offered: Spring

HVA 205 - Customer Service and Support (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Examines strategies to improve communication skills to make a positive first impression, and to provide customer service excellence with urgency and empathy in every customer interaction. Focuses on the importance of displaying good manners, maintaining a positive attitude and professional appearance. Emphasizes the development of strong communication skills to address customer inquiries by listening, answering questions and providing explanations in non-technical terms.
Typically offered: Spring

High School Equivalency (HSE)

HSE 007 - Preparation for College and Career Readiness I (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Introduces pre-academic listening, speaking, reading comprehension and writing skills expected in High School Equivalency (HSE) classes. Designed for Adult Education NRS (National Reporting System) High-Intermediate ESL learners preparing to transition to HSE. Focuses on building oral skills for comprehension, collaboration and class presentations; develops understanding of text structure and details; builds skils in researching topics, organizing, and editing writing. Topics may include social skills/American culture, health, civics, housing, consumer skills/financial literacy, employment, transportation, education/U.S. school system, science and technology. This is the first in a sequence of four transitional ELA-to-HSE courses. Students must take a language proficiency test before enrolling. Carries no transfer credit. May be repeated three times.
Typically offered: Fall

HSE 008 - Preparation for College and Career Readiness II (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Develops pre-academic listening, speaking, reading comprehension and writing skills expected in High School Equivalency (HSE) classes. Designed for Adult Education NRS (National Reporting System) High-Intermediate ESL learners preparing to transition to HSE. Focuses on building oral skills for comprehension, collaboration and class presentations; develops understanding of text structure and details; builds skils in researching topics, organizing, and editing writing. Topics may include social skills/American culture, health, civics, housing, consumer skills/financial literacy, employment, transportation, education/U.S. school system, science and technology. This is the second in a sequence of four transitional ELA-to-HSE courses. Students must take a language proficiency test before enrolling. Carries no transfer credit. May be repeated three times.
Typically offered: Spring, Summer

HSE 009 - Preparation for College and Career Readiness III (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Further develops pre-academic listening, speaking, reading comprehension and writing skills expected in High School Equivalency (HSE) classes. Designed for Adult Education NRS (National Reporting System) High-Intermediate ESL Learners preparing to transition to HSE. Focuses on building oral skills for comprehension, collaboration and class presentations; develops understanding of text structure and details; builds skils in researching topics, organizing, and editing writing. Topics may include social skills/American culture, health, civics, housing, consumer skills/financial literacy, employment, transportation, education/U.S. school system, science and technology. This is the third in a sequence of four transitional ELA-to-HSE courses. Students must take a language proficiency test before enrolling. Carries no transfer credit. May be repeated three times.
Typically offered: Fall

HSE 010 - Preparation for College and Career Readiness IV (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Expands pre-academic listening, speaking, reading comprehension and writing skills expected in High School Equivalency (HSE) classes. Designed for Adult Education NRS (National Reporting System) Advanced ESL Learners preparing to transition to HSE. Focuses on building oral skills for comprehension, collaboration and class presentations; develops understanding of text structure and details; builds skills in researching topics, organizing, and editing writing. Topics may include life skills, career exploration, current events, civics, math, consumer skills/financial literacy, U.S. history and government, geography, science, technology, literature and test-taking skills. This is the fourth in a sequence of four transitional ELA-to-HSE courses. Students must take a language proficiency test before enrolling. Carries no transfer credit. May be repeated three times.
Typically offered: Spring, Summer

HSE 014 - Digital and Information Skills for High School Equivalency Learners (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Expands the use of computer, digital and informaiton literacy skillsfor Adult Education NRS (National Reporting System) Advanced ESL Learners. Focuses on building the knowledge and ability to use computers and technology for college-level classes and careers. Expands the use of the digital literacy and information literacy skills necessary for understanding and using information in a variety of formats to prepare students for HSE preparation, Academic ESL, career programs, and the workplace. Expands the use of critical thinking skills by analyzing, communicating and evaluating information. Topics may include life skills, civic engagement, academic skill development, and workforce/career preparation. This is the fourth in a sequence of four courses for students of English who may have limited native language literacy skills. Students must take a language proficiency test before enrolling. Carries no transfer credit. May be repeated three times.
Typically offered: Fall, Spring, Summer

HSE 021 - Foundations in Social Studies (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Develops reading/literacy skills as students become aware of Social Studies content. Introduces and reinforces word recognition using decoding skills and strategies that include high frequency sight words, phonics, syllabication, and sentence structure foundations. Uses vocabulary acquisition, fluency instruction, and reading strategies to comprehend text and to progress toward HSE completion, college and career readiness, and functional life skills. Eligible Adult Education students must complete orientation and standardized testing requirements before enrolling. Carries no transfer credit.
Typically offered: Fall, Spring, Summer

HSE 022 - Foundations in Science (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Develops reading/literacy skills as students become aware of Science content. Introduces and reinforces word recognition using decoding skills and strategies that include high frequency sight words, phonics, syllabication, and sentence structure foundations. Uses vocabulary acquisition, fluency instruction, and reading strategies to comprehend text and to progress toward High School Equivalency completion, college and career readiness, and functional life skills. Eligible Adult Education students must complete orientation and standardized testing requirements before enrolling. Carries no transfer credit.
Typically offered: Fall, Spring, Summer

HSE 023 - Pre-HSE Social Studies Skills (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Improves reading/literacy skills with an emphasis on Social Studies content. Reinforces and reviews word recognition using decoding skills and strategies that include high frequency sight words, phonics, syllabication, and sentence structure foundations. Uses vocabulary acquisition, fluency instruction, and reading strategies to comprehend text and to progress toward HSE completion, college and career readiness, and functional life skills. Eligible Adult Education students must complete orientation and standardized testing requirements before enrolling. Carries no transfer credit.
Typically offered: Fall, Spring, Summer

HSE 024 - Pre-HSE Science Skills (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Improves reading/literacy skills with an emphasis on Science content. Reinforces and reviews word recognition using decoding skills and strategies that include high frequency sight words, phonics, syllabication, and sentence structure foundations. Uses vocabulary acquisition, fluency instruction, and reading strategies to comprehend text and to progress toward HSE completion, college and career readiness, and functional life skills. Eligible Adult Education students must complete orientation and standardized testing requirements before enrolling. Carries no transfer credit.
Typically offered: Fall, Spring, Summer

HSE 025 - HSE Social Studies and Science Skills (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Reviews specific vocabulary and reading strategies that facilitate comprehension, application, analysis and evaluation levels of cognitive skills within Social Studies, United States/Illinois Constitution, and Science content. Prepares the student for the High School Equivalency Social Studies and Science exams along with the Illinois mandated U.S./Illinois Constitution test. College and career readiness along with functional life skills are also developed. Eligible Adult Education students must complete orientation and standardized testing requirements before enrolling. Carries no transfer credit.
Typically offered: Fall, Spring, Summer

HSE 026 - HSE Social Studies and Science Topics (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Continues to review and develop specific vocabulary, reading strategies, and content area knowledge that facilitate comprehension, application, analysis and evaluation levels of cognition within Social Studies, United States/Illinois Constitution, and Science content. Prepares the student for the High School Equivalency Social Studies and Science exams along with the Illinois mandated U.S./Illinois Constitution test. College and career readiness along with functional life skills are also developed. Eligible Adult Education students must complete orientation and standardized testing requirements before enrolling. Carries no transfer credit.
Typically offered: Fall, Spring, Summer

HSE 031 - Language Arts Foundations (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Presents basic English grammar and usage, capitalization, punctuation, spelling, vocabulary,and dictionary use. Develops skill in producing short, clear writing examples. Uses technology as a tool to learn, take exams and produce work. Develops reading, writing, and speaking skills to progress toward High School Equivalency completion, college and career readiness and functional life skills. Eligible Adult Education students must complete orientation and standardized testing requirements before enrolling. Carries no transfer credit.
Typically offered: Fall, Spring, Summer

HSE 032 - Language Arts Essentials (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Develops skill in producing short, clear writing examples. Uses basic English grammar and usage, capitalization and punctuation. Uses technology as a tool to learn, take exams and produce work. Develops reading, writing, and speaking skills to progress toward High School Equivalency completion, college and career readiness and functional life skills. Eligible Adult Education students must complete orientation and standardized testing requirements before enrolling. Carries no transfer credit.
Typically offered: Fall, Spring, Summer

HSE 033 - Pre-HSE Language Arts Skills (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Develops reading, writing, and speaking skills, including literature and composition. Reinforces basic English grammar and usage, spelling rules, vocabulary/dictionary use, capitalization, punctuation, and sentence/paragraph development. Uses technology as a tool to learn, take exams and produce work. Prepares students to progress toward High School Equivalency completion, college and career readiness, and functional life skills. Eligible Adult Education students must complete orientation and standardized testing requirements before enrolling. Carries no transfer credit.
Typically offered: Fall, Spring, Summer

HSE 034 - Pre-HSE Language Arts Topics (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Introduces skills of application, analysis, and evaluation. Reinforces basic English grammar and usage, spelling rules, vocabulary/dictionary use, capitalization, punctuation, and sentence/paragraph development. Uses technology as a tool to learn, take exams and produce work. Prepares students to progress toward High School Equivalency completion, college and career readiness, and functional life skills. Eligible Adult Education students must complete orientation and standardized testing requirements before enrolling. Carries no transfer credit.
Typically offered: Fall, Spring, Summer

HSE 035 - HSE Language Arts (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Reviews grammar and usage, sentence structure and types, style, logic, punctuation, and spelling. Develops reading/writing/speaking skills, including literature and composition. Reviews literary types, terms, techniques, interpretation, and commentary. Uses technology as a tool to learn, take exams and produce work. Prepares students toward High School Equivalency completion and college and career readiness. Eligible Adult Education students must complete orientation and standardized testing requirements before enrolling. Carries no transfer credit.
Typically offered: Fall, Spring, Summer

HSE 036 - HSE Language Arts Applications (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Continue to develop reading/writing/speaking skills, including composition. Read multi-paragraph articles, identify argument and evidence used to support author's argument, and assess argument's validity. Produce writing samples that require the writer to take a position based on reading and defend it with appropriate evidence, detail and argumentative strategies. Use technology as a tool to learn, take exams and produce work. Prepares students toward High School Equivalency completion and college and career readiness. Eligible Adult Education students must complete orientation and standardized testing requirements before enrolling. Carries no transfer credit.
Typically offered: Fall, Spring, Summer

HSE 041 - Math Foundations (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Introduces basic arithmetic skills including the fundamental operations with whole numbers, decimals, fractions, and mixed numbers; verbal reasoning; ratio, percent and probability; data analysis; algebra; geometry; and measurement systems. Prepares the student for Pre-High School Equivalency Mathematical Skills along with career readiness and functional life skills. Eligible Adult Education students must complete orientation and standardized testing requirements before enrolling. Carries no transfer credit.
Typically offered: Fall, Spring, Summer

HSE 042 - Math Essentials (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Introduces basic arithmetic skills including the fundamental operations with whole numbers, decimals, fractions, and mixed numbers; verbal reasoning; ratio, percent and probability; data analysis; algebra; geometry; and measurement systems. Prepares the student for Pre-High School Equivalency Mathematical Skills along with career readiness and functional life skills. Eligible Adult Education students must complete orientation and standardized testing requirements before enrolling. Carries no transfer credit.
Typically offered: Fall, Spring, Summer

HSE 043 - Pre-HSE Math Skills (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Reinforces arithmetic skills including the all operations with decimals, fractions, mixed numbers; verbal reasoning; and measurement systems. Introduces probability, percent, ratio and proportion, algebra, geometry and data analysis. Introduces comprehension, application, analysis, and evaluation levels of cognitive skills along with using technology to learn and take exams. Prepares the student for Pre-High School Equivalency Mathematical Skills along with career readiness and functional life skills. Eligible Adult Education students must complete orientation and standardized testing requirements before enrolling. Carries no transfer credit.
Typically offered: Fall, Spring, Summer

HSE 044 - Pre-HSE Math Topics (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Reinforces arithmetic skills including all operations with decimals, fractions, mixed numbers; verbal reasoning; and measurement systems. Introduces probability, percent, ratio and proportion, algebra, geometry and data analysis. Introduces comprehension, application, analysis, and evaluation levels of cognitive skills along with using technology to learn and take exams. Prepares the student for Pre-High School Equivalency Mathematical Skills along with career readiness and functional life skills. Eligible Adult Education students must complete orientation and standardized testing requirements before enrolling. Carries no transfer credit.
Typically offered: Fall, Spring, Summer

HSE 045 - HSE Math (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Reviews arithmetic skills including decimals, fractions, verbal reasoning, measurement, probability, percent, ratio and proportion, and data analysis. Discusses algebra and geometry concepts, multi-step problem solving, using formulas and numeration statistics. Emphasizes review of comprehension, application, analysis, and evaluation of cognitive skills. Prepares the student for the High School Equivalency Mathematics Test, college and career readiness, and functional life skills. Eligible Adult Education students must complete orientation and standardized testing requirements before enrolling. Carries no transfer credit.
Typically offered: Fall, Spring, Summer

HSE 046 - HSE Math Applications (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Reviews arithmetic skills including decimals, fractions, verbal reasoning, measurement, probability, percent, ratio and proportion, and data analysis. Discusses algebra and geometry concepts, multi-step problem solving, using formulas and numeration statistics. Emphasizes review of comprehension, application, analysis, and evaluation of cognitive skills. Prepares the student for the High School Equivalency Mathematics Test, college and career readiness, and functional life skills. Eligible Adult Education students must complete orientation and standardized testing requirements before enrolling. Carries no transfer credit.
Typically offered: Fall, Spring, Summer

HSE 055 - Bridge to Math for Technical Careers Foundations (0.5-6 Credits)
.5 - 6 lecture, .5 - 6 total contact hours
Bridge to Math integrates reading, writing, and basic math skills with occupational specific knowledge in the Technical Careers sector. Contextualizes skills to prepare students to transition into postsecondary education and/or employment. Designed for students assessed at the ABE (Pre-HSE – High School Equivalency) and ASE (HSE) reading level. This course includes career awareness and intensive supportive services. Carries no transfer credit.
Typically offered: Fall, Spring

HSE 056 - Bridge to Math for Technical Careers (0.5-6 Credits)
.5 - 6 lecture, .5 - 6 total contact hours
Bridge to Math integrates reading, writing, and basic math skills with occupational specific knowledge in the Technical Careers sector. Contextualizes skills to prepare students to transition into postsecondary education and/or employment. Designed for students assessed at the ABE (Pre-HSE – High School Equivalency) and ASE (HSE) reading level. This course includes career awareness and intensive supportive services. Carries no transfer credit.
Typically offered: Fall, Spring

HSE 059 - Bridge to Health Careers Foundations (0.5-6 Credits)
.5 - 6 lecture, .5 - 6 total contact hours
Bridge to Healthcare integrates basic listening, speaking, reading, writing, and math skills with occupational specific knowledge in the healthcare sector. Contextualizes skills to prepare students to transition into postsecondary education and/or employment. Designated for students assessed at the ABE (Pre-HSE - High School Equivalency) and ASE (HSE) reading level. This course includes career awareness and intensive supportive services. Carries no transfer credit.
Typically offered: Fall, Spring, Summer

HSE 060 - Bridge to Health Careers (0.5-6 Credits)
.5 - 6 lecture, .5 - 6 total contact hours
Integrates basic listening, speaking, reading, writing, and math skills with occupational specific knowledge in the healthcare sector. Contextualizes skills to prepare students to transition into postsecondary education and/or employment. Designed for students assessed at the ABE (Pre-HSE – High School Equivalency) and ASE (HSE) reading level. This course includes career awareness and intensive supportive services. Carries no transfer credit.
Typically offered: Fall, Spring, Summer

HSE 065 - Bridge to Office Careers Foundations (0.5-6 Credits)
.5 - 6 lecture, .5 - 6 total contact hours
The Bridge to Office Careers class integrates basic listening, speaking, reading, writing, and math skills with occupational specific knowledge for careers in offices. Contextualized curriculum prepares students to transition into postsecondary education and/or employment. Designed for students assessed at the low intermediate and above reading level using the ICCB approved assessment tool. This course includes career awareness and intensive supportive services. Carries no transfer credit.
Typically offered: Fall, Spring, Summer

HSE 066 - Bridge to Office Careers (0.5-6 Credits)
.5 - 6 lecture, .5 - 6 total contact hours
Integrates basic listening, speaking, reading, writing, and math skills with occupational specific knowledge for office careers. Contextualized curriculum prepares students to transition into postsecondary education and/or employment. Designed for students assessed at the low intermediate and above reading level using the ICCB approved assessment tool. This course includes career awareness and intensive supportive services. Carries no transfer credit.
Typically offered: Fall, Spring, Summer

HSE 067 - Bridge to Technology (1-4 Credits)
1 - 4 lecture, 0 lab, 1 - 4 total contact hours
The Bridge to Technology class integrates basic listening, speaking, reading, writing, and math skills with occupational specific knowledge for careers in Information Technology (IT). Contextualized curriculum prepares students to transition into postsecondary education and/or employment. Designed for students assessed at the low intermediate and above reading level using the approved assessment tool. This course includes career awareness and intensive supportive services. Carries no transfer credit.
Typically offered: Fall, Spring, Summer

HSE 074 - Citizenship Preparation for High School Equivalency Learners (1-4 Credits)
1 - 4 lecture, 1 - 4 total contact hours
Expands upon the basic structure, functions and purposes of U.S.federal government and major aspects of American history and geography for Adult Education NRS (National Reporting System) Advanced ESL learners. Expands uon the procedures and application for U.S. naturalziation and on the rights and responsibilities of U.S. citizenship. Promotes awareness of contributions from diverse and multicultural groups in the U.S. Further develops advanced vocabulary necessary for passing the naturalization test and interview. This is the fourth in a series of four courses for students of English who may have limited native language literacy akills. Students must take a language proficiency test before enrolling. Carries no transfer credit. May be repeated three times.
Typically offered: Fall, Spring

HSE 084 - Oral Communication for High School Equivalency Learners (1-4 Credits)
1 - 4 lecture, 1 - 4 total contact hours
Expands the use of effective and appropriate oral communication skills for Adult Education NRS (National Reporting System) Advanced ESL learners. Focuses on building the knowledge and ability to actively participate in the U.S. workforce, academic environments and in interpersonal interactions. Students will use their high level English literacy skills to develop listening skills to decipher context clues from outside communications, learn to use appropriate oral language within different contexts, and learn to effectively speak to manage conversation and presentation skills. Topics may include life skills, civic engagement, academic language development, and workforce/career preparation. This is the fourth in a series of four courses for students of English who may have limited native language literacy akills. Students must take a language proficiency test before enrolling. Carries no transfer credit. May be repeated three times.
Typically offered: Fall, Spring

HSE 090 - Adult Employment Skills (1-4 Credits)
1 - 4 lecture, 1 - 4 total contact hours
Integrates basic listening, speaking, reading, writing and math skills with content knowledge in a Career Area Program according to the Integrated Education and Training Method. Contextualizes academic skills to prepare students for success in postsecondary education and/or employment. Recommended for AED students assessed at the Transition to HSE/Postsecondary Training, pre-HSE, HSE reading level and/or Academic ESL III-IV level. Includes career awareness and transition support services. Carries no transfer credit. May be repeated up to three times.
Typically offered: Fall, Spring, Summer

HSE 091 - Bridge to College and Career Success (1-4 Credits)
1 - 4 lecture, 1 - 4 total contact hours
Provides skills needed to be successful in college/career program classes. Emphasizes introductory college success skills such as time management, testing, reading/writing strategies and note-taking, while exploring career options. Designed for AED students who will transition into college/certificate programs offered at Harper College. Must be enrolled in Harper's AED department HSE classes, ready to take the HSE Test, and recommended by program staff.
Typically offered: Fall, Spring, Summer

HSE 092 - Technical Trades in Manufacturing (1-4 Credits)
1 - 4 lecture, 1 - 4 total contact hours
Integrates basic listening, speaking, reading, writing and math skills with content knowledge in occupational-specific knowledge in the manufacturing sector according to the Integrated Education and Training Method. Contextualizes academic skills to prepare students for success in postsecondary education and/or employment. Recommended for AED students assessed at the Transition to HSE/Postsecondary Training level, pre-HSE, HSE reading level and/or Academic ESL III-IV level. Must be co-enrolled in a technical trades career program such as HVACR, Manufacturing, Welding or Maintenance. Includes career awareness and transition supportive services. Carries no transfer credit. May be repeated up to three times.
Typically offered: Fall, Spring

HSE 093 - Certified Nursing Assistant Success (1-4 Credits)
1 - 4 lecture, 1 - 4 total contact hours
Integrates basic listening, speaking, reading, writing and math skills with content knowledge in the CNA 101 Nursing Assistant course according to the Integrated Education and Training Method. Contextualizes academic skills to prepare students for success in postsecondary education and/or employment. Recommended for AED students assessed at the Transition to HSE/Postsecondary Training level, pre-HSE, HSE reading level and/or Academic ESL III-IV level. Must be co-enrolled in the CNA Certificate course. Includes career awareness and transition supportive services. Carries no transfer credit. May be repeated up the three times.
Typically offered: Fall, Spring

HSE 094 - Integrated Office Assistant (1-4 Credits)
1 - 4 lecture, 1 - 4 total contact hours
Integrates basic listening, speaking, reading, writing and math skills with content knowledge in Computer Applications Software (CAS) courses according to the Integrated Education and Training Method. Contextualizes academic skills to prepare students for success in postsecondary education and/or employment. Recommended for AED students assessed at the Transition to HSE/Postsecondary Training level, pre-HSE, HSE reading level and/or Academic ESL III-IV level. Must be co-enrolled in Office Assistant Certificate courses. Includes career awareness and transition supportive services. Carries no transfer credit. May be repeated up to three times.
Typically offered: Fall, Spring

HSE 095 - Integrated Supply Chain Management (1-4 Credits)
1 - 4 lecture, 1 - 4 total contact hours
Integrates basic listening, speaking, reading, writing and math skills with content knowledge in Supply Chain Management (SCM) Logistics courses according to the Integrated Education and Training Methods. Contextualizes academic skills to prepare students to transition into postsecondary education and/or employment. Recommended for AED students assessed at the Transition to HSE/Postsecondary Training, pre-HSE, HSE reading level and/or Academic ESL III-IV level. Must be co-enrolled in the SCM Certificate sequence. Includes career awareness and transition supportive services. Carries no transfer credit. May be repeated up three times.
Typically offered: Fall, Spring

HSE 096 - Integrated Community Health (1-4 Credits)
1 - 4 lecture, 0 lab, 1 - 4 total contact hours
Integrates basic listening, speaking, reading, writing, and math skills with content knowledge in Community Health Worker (CHW) Certificate program according to the Integrated Education and Training Method. Contextualizes academic skills to prepare students for success in postsecondary education and/or employment. Recommended for AED students assessed at the Transition to HSE/Postsecondary Training level, Pre-HSE, HSE reading level and/or Academic ESL III-IV level. Must be co-enrolled in the CHW Certificate course(s). Includes career awareness and transition supportive services. Carries no transfer credit.
Typically offered: Fall, Spring

HSE 097 - Integrated Accounting (1-4 Credits)
1 - 4 lecture, 1 - 4 total contact hours
The Integrated Accounting class integrates listening, speaking, reading, writing, and math skills with occupational specific content knowledge in accounting courses according to the Integrated Education and Training (IET) program administered as the Integrated Career and Academic Preparation System in the state of Illinois (ICAPS). Contextualized curriculum prepares students to transition into postsecondary education and/or employment. Recommended for students assessed at the high intermediate and above reading level using the approved assessment tool. Students must be co-enrolled in the appropriate career classes working toward an accounting/bookkeeping certificate. This course includes career awareness and intensive supportive services. Carries no transfer credit.
Typically offered: Fall, Spring

HSE 098 - Integrated Early Childhood Education (1-4 Credits)
1 - 4 lecture, 1 - 4 total contact hours
Integrates basic listening, speaking, reading, writing, and math skills with content knowledge in Early Childhood Education (ECE) course sequence according to the Integrated Education and Training (IET) program administered as the Integrated Career and Academic Preparation System in the state of Illinois (ICAPS). Contextualizes academic skills to prepare students to transition into postsecondary education and/or employment. Recommended for Adult Educational Development (AED) students assessed at the Transition to High School Equivalency (HSE)/Postsecondary Training, Pre-HSE, HSE reading level and/or English Language Acquisition (ELA) 9-10 level. Must be co-enrolled in the ECE Certificate sequence. Includes career awareness and transition supportive services. Carries no transfer credit.
Typically offered: Fall, Spring

History (HST)

HST 105 - Great Ideas of World Civilizations (3 Credits)
3 lecture, 3 total contact hours
Introduces students to a selection of formative historical and contemporary texts in a variety of disciplines, including philosophy, the social sciences, literature, gender/multi-cultural studies, and the history of science. (Also listed as HUM 105. Credit will be given for either HST 105 or HUM 105, but not both.) IAI H9 900
Typically offered: Fall, Spring, Summer

HST 111 - American Experience to 1877 (3 Credits)
3 lecture, 3 total contact hours
Surveys the American experience through the pre-revolutionary period, the expansion westward and the Civil War. Special stress is placed upon the social, economic, cultural, political and constitutional development of the United States. IAI S2 900
Typically offered: Fall, Spring, Summer

HST 112 - American Experience Since 1877 (3 Credits)
3 lecture, 3 total contact hours
Surveys the end of Reconstruction to the present, with primary stress on political and economic development. Also includes social, intellectual and cultural phases, expanded role of government in national affairs and the participation of the United States in international relations. IAI S2 901
Typically offered: Fall, Spring, Summer

HST 121 - History of Mexico, Central and South America (3 Credits)
3 lecture, 3 total contact hours
Surveys the political and constitutional history of the principal Latin American nations. The course will cover movements leading to independence and social and economic events which are pertinent to relationships with the United States. IAI S2 920N
World Culture and Diversity
Typically offered: Fall, Spring, Summer

HST 141 - History of Western Civilization to 1650 (4 Credits)
4 lecture, 4 total contact hours
Stresses political, social, cultural, economic and technological developments from prehistoric times and concludes with the last manifestation of essentially medieval ideology; i.e., the Protestant Reformation. IAI S2 902
Typically offered: Fall, Spring, Summer

HST 142 - History of Western Civilization Since 1650 (4 Credits)
4 lecture, 4 total contact hours
Continues HST 141. Commences with the emergence of modern times, i.e., the development of royal absolutism and the beginnings of the modern nation state and concludes with the 20th century and the modern world. IAI S2 903
Typically offered: Fall, Spring, Summer

HST 151 - History of England: Norman Conquest to 1600 (3 Credits)
3 lecture, 3 total contact hours
Conquest to 1600 (3-0) 3 hrs. Surveys the social, cultural, economic, political and religious history of England from the Norman Conquest through the age of Elizabeth I.
Typically offered: Fall

HST 152 - History of England: 1600 to Present (3 Credits)
3 lecture, 3 total contact hours
Surveys the social, cultural, imperial, economic and political history of England from the Stuart Dynasty through the present era.
Typically offered: Spring

HST 153 - British Culture and Society (3 Credits)
3 lecture, 3 total contact hours
Surveys the culture and society of England from the Norman Conquest to the present.
Typically offered: Spring, Summer

HST 202 - Topics in History (1-3 Credits)
1 - 3 lecture, 1 - 3 total contact hours
Examines selected eras or topics in the various fields of history. The exact content and instructional methodology will vary from semester to semester depending on the material to be studied. A syllabus and/or course outline containing additional information will be available with other pre-registration materials each time the course is offered. Experience or interest in history is recommended, but not required. This course may be taken from one to three credit hours, to a maximum of nine credit hours.
Typically offered: Fall, Spring, Summer

HST 210 - Women: The American Experience (3 Credits)
3 lecture, 3 total contact hours
Studies history of the status, roles and contributions of women in America, and a survey of the attitudes and movements that have affected the lives of women in America.
World Culture and Diversity
Typically offered: Spring

HST 212 - Recent American History, 1945-Present (3 Credits)
3 lecture, 3 total contact hours
Provides students with a comprehensive analysis of the critical period, 1945 to the present in American history. Incorporates politics and culture of the Cold War, the revival of liberalism, the Civil Rights movement, the rise of the New Left in the 60s, the Vietnam War, the counterculture, Watergate, the personalization of political activism in the 70s, the women's movement, the resurgence of conservatism, the Reagan presidency, the Bush era, the Clinton years, return of the Republicans, 9/11 war in the Middle East, the economic downturn, Obama 2008 and the 2012 election. Emphasizes social history and cultural trends as well as political and economic history.
Typically offered: Spring, Summer

HST 214 - African-American History (3 Credits)
3 lecture, 3 total contact hours
Studies African-Americans from African slave trade through slavery, reconstruction, years of neglect and civil rights revolution in the United States and their contributions to American culture. IAI S2 923D
World Culture and Diversity
Typically offered: Fall

HST 219 - Illinois and Local History (3 Credits)
3 lecture, 3 total contact hours
Focuses upon Illinois from its prehistory to the present with special attention to the local setting. Explores the impact of the state's geography upon its history and investigates the contributions of different group--African, American, European, Native American, male and female--in the economic, social, political and literary development of Illinois. Considers the ways in which the history of this state illustrates, amplifies and explains the larger history of the United States.
Typically offered: Spring, Summer

HST 231 - History of the Middle East to 1453 (3 Credits)
3 lecture, 3 total contact hours
Surveys the Ancient Near East and Middle East from its origins in Ancient Summer up to 1453. Emphasis will be placed on social, political, economic, religious and military institutions. The process of change and broad continuities will be examined in relationship to the historical evolution and growth of the region. IAI S2 920N
Typically offered: Fall

HST 232 - History of the Middle East 1453 to Present (3 Credits)
3 lecture, 3 total contact hours
Surveys the history of the Middle East from 1453 to the present. Emphasis is placed on social, political, economic, religious and military institutions that shape the region. The establishment of colonial rule is highlighted along with the struggle for independence, modernization and development. IAI S2 920N
Typically offered: Spring

HST 241 - History of China: Earliest Time through Ming Dynasty (3 Credits)
3 lecture, 3 total contact hours
Surveys the history of China from prehistory to the end of the Ming Dynasty. Major emphasis is placed on the evolution and growth of the Imperial system and forces that shaped its continuation and growth. IAI S2 920N
Typically offered: Fall

HST 242 - History of China: From the Ching Dynasty to Present (3 Credits)
3 lecture, 3 total contact hours
Surveys the history of China from 1644, the Ching Dynasty, to the present. The content will stress the evolution of China from a period of strength and unity to one of disunity and change during the revolutionary times of 1911-1949. Special emphasis will be placed on the establishment of the Communist government in 1949 to the present. Economic modernization, role of foreigners and cultural advancements will also be highlighted. IAI S2 920N
World Culture and Diversity
Typically offered: Spring

HST 243 - Far East in the Modern World (3 Credits)
3 lecture, 3 total contact hours
Studies history of East Asia since 1800. The traditional cultures of China and Japan, the Western impact and the Asian response will be covered. IAI S2 920N
Typically offered: Fall, Spring, Summer

HST 245 - The World Since 1945 (3 Credits)
3 lecture, 3 total contact hours
Surveys the history of the world from 1945 to the present with major emphasis on historical issues and events that have global impact. IAI S2 913N

HST 261 - American Civil War 1848-1865 (3 Credits)
3 lecture, 3 total contact hours
Focuses on the causes, events and immediate outcomes of the American Civil War during the period 1848-1865. Political, military and social history is presented so that students receive a comprehensive understanding of this seminal event in American history.
Typically offered: Fall

HST 270 - History of Rome (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Surveys Roman history from the time of the Roman monarchy through the reign of Constantine. Emphasizes the origins and history of the great Roman Legions. Includes references to works of Latin literature including Tacitus, Suetonius, Sallust, Catullus, Ovid, Virgil and Horace. Covers Roman pre-history, the Roman Republic, the end of the Republic, and the early and late Roman Empire. Discusses prominent Roman citizens such as Marcus, Sulla, Pompey, Gracchi, Caesar and Augustus.
Typically offered: Fall

HST 281 - World War I (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Examines the causes, impact, outcomes and legacy of the Great War, the first modern war since the Industrial Revolution. Emphasizes current and past interpretations of the conflict. Highlights the experiences of the people, societies, and countries/nation-states that participated in this first "total" war. Considers how this conflict changed the twentieth century.
Typically offered: Fall

HST 282 - World War II (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Surveys the history of World War II, the most destructive conflict of the twentieth century. Covers major military operations (strategy and tactics) with an emphasis on diplomacy, doctrine and conflicts over resources. Examines the origins of the war in Europe and the Pacific and details the time period 1919-1939, Pearl Harbor, the homefront, American participation in Europe and the Pacific, new technologies, the Holocaust, the atomic bomb, the end of the war, and the outcomes and impact of the war on the U.S. and the world beyond 1945.
Typically offered: Spring

Hospitality Management (FSM)

FSM 103 - Hospitality and Resort Operations (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides students with an overview of principles and practices of managing a variety of resort facilities and their affiliated recreational activities. A wide range of topics including guest services, front office operations, housekeeping management, and food and beverage operations.
Typically offered: Fall

FSM 104 - Event Management and Special Tourism (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Dives into the details of planning, organizing, and executing events in the tourism industry. Students will learn the fundamentals of destination management, international tourism, and event planning. Topics include budgeting, marketing and logistics for festivals and large-scale events. Students will discover how to create memorable experiences that meet the needs and expectations of event attendees.
Typically offered: Spring

FSM 107 - Basic Quantity Bread and Pastry Arts (4 Credits)
2 lecture, 5 lab, 7 total contact hours
Introduces basic quantity baking of breads and pastries. Students will learn the fundamentals of baking science, terminology, ingredients, weights and measures, formula conversion, and storage. Sanitation and hygienic work habits conforming to health regulations are emphasized.
Typically offered: Fall

FSM 108 - Advanced Quantity Bread and Pastry Arts (4 Credits)
2 lecture, 5 lab, 7 total contact hours
Continues instruction in the finer arts of breads and pastry preparation, including emphasis on pastry arts work, pastries and breads as used in exclusive establishments and ornamental skills for culinary exhibits. Prerequisite: FSM 107 with a grade of C or better.
Typically offered: Spring

FSM 109 - Introduction to Food Prep/Production (4 Credits)
2 lecture, 5 lab, 7 total contact hours
Introduces basic cooking skills that can be developed to produce quality food products. Students will learn fundamentals of cooking and baking through daily assignments and production. All aspects of the industry will be covered including proper handling and storage, heating and holding, weights and measures, safety, sanitation, and personal hygiene.
Typically offered: Fall, Spring

FSM 110 - Advanced Quantity Culinary Arts (4 Credits)
2 lecture, 5 lab, 7 total contact hours
Continues FSM 109 with special emphasis in the dining experiences. Students will prepare meals for the College dining room, banquets, catered functions and special culinary arts events. Students will discuss theory as well as procedures in the "back of the house."
Typically offered: Fall, Spring

FSM 111 - Introduction to the Hospitality Industry (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Orients students to the hospitality industry, its organizational structure and integration of the modern industry components. Operational considerations are discussed. Career opportunities are explored. Start Smart
Typically offered: Fall, Spring

FSM 113 - Dining Room Operations (3 Credits)
1 lecture, 5 lab, 6 total contact hours
Introduces theory and practice of quantity food serving including practical experience in dining rooms and catering services. Involves set-up, tableside preparation and presentation of food and beverage. Examines various roles of dining room personnel.
Typically offered: Fall, Spring

FSM 114 - Food Standards and Sanitation (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Introduces safe food handling practices and discusses the standardized procedures involved in the procurement, storage, preparation, holding, and service of safe food. Prepares students for the State of Illinois-approved Food Service Sanitation Manager's Certification test.
Typically offered: Fall, Spring

FSM 115 - Menu Planning (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Studies menu planning theory and principles for various types of food service operations. Examines the relationship of menu planning to the functional areas within food facilities. Menu planning and its importance as a determination of food cost, selling price, and profitability is also emphasized.
Typically offered: Fall, Spring

FSM 120 - Front Office Operations (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Establishes a systematic approach to front office operations detailing the flow of business through the hotel from reservations to checkout. Front office management is placed within the context of the overall operation of the hotel. Methods of handling guest folios, reservation systems, property management systems, and cash controls are discussed.
Typically offered: Spring

FSM 153 - Convention Sales and Services (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Equips students with the knowledge and skills needed to excel in the field of trade show and meeting sales and services. Students will learn key topics in the industry including revenue management and contracting.
Typically offered: Spring

FSM 162 - Classical Cuisines (4 Credits)
2 lecture, 5 lab, 7 total contact hours
Introduces comprehensive integration of previous culinary production course work or work experience and provides food production for the department's special events, culinary competitions, and the College dining room. Demonstrations, food labs, and lectures are used to present the material. Prerequisite: FSM 109 and FSM 110 with grades of C or better.
Typically offered: Fall

FSM 163 - Garde Manger (2 Credits)
1 lecture, 3 lab, 4 total contact hours
Provides students with skills and knowledge in the preparation of cold hors d'oeuvres, sandwiches, salads, garnishes, pates, terrines, mousses, vegetable carving, chaud froid sauce, tallow and ice carving. Prerequisite: FSM 109 with a grade of C or better.
Typically offered: Fall

FSM 172 - Classical Baking (2 Credits)
1 lecture, 3 lab, 4 total contact hours
Concentrates on methods and procedures for producing high quality specialty tortes and buffet items for bakeries and fine dining clubs, hotels and restaurants. Pulled sugar, pastillage, nougat, marzipan, chocolate, ice cream, candies and desserts are included. Emphasis is on individual skill development through practice. Prerequisite: FSM 108 with a grade of C or better.
Typically offered: Fall

FSM 173 - Cake Decoration (2 Credits)
1 lecture, 3 lab, 4 total contact hours
Presents methods and procedures for producing high quality wedding and specialty cakes for bakeries and fine dining clubs, hotels and restaurants. Emphasis is on individual skill development through practice.
Typically offered: Fall, Spring

FSM 210 - Hospitality Facility Maintenance (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Focuses on the organization, duties and administration of a restaurant and lodging facility maintenance department. Discusses purchasing, furniture, carpeting, linens and supplies. Identifies and evaluates care and maintenance techniques of the areas serviced by a facility maintenance department.
Typically offered: Fall

FSM 211 - Purchasing and Storage (3 Credits)
3 lecture, 3 total contact hours
Standards and identification of quality meats, dairy products, produce, groceries, frozen foods and supplies. Methods of purchasing, purveyor relations and proper storage techniques and purchase standards for convenience foods.
Typically offered: Spring

FSM 212 - Hospitality Supervision (3 Credits)
3 lecture, 3 total contact hours
Studies the theory and techniques of supervision as related to the hospitality industry.
Typically offered: Fall

FSM 213 - Seminar and Internship (3 Credits)
1 lecture, 15 clinical/other, 16 total contact hours
Furnishes participation in a supervised cooperative work experience program in a College approved hospitality operation. Enrollment is restricted to sophomores in the Hospitality Management program. Prerequisite: FSM 212 with a grade of C or better.
Typically offered: Spring

FSM 214 - Hospitality Operations Analysis (3 Credits)
3 lecture, 3 total contact hours
Provides practical application of operational analysis used by food, lodging and travel-related fields. Use of ledgers, automated information systems and basic financial statements are discussed.
Typically offered: Spring

FSM 215 - Restaurant Layout and Equipment (3 Credits)
3 lecture, 3 total contact hours
Maximizing employee productivity through various types of food equipment and proper equipment arrangement. Effects of use of convenience foods on equipment planning.
Typically offered: Fall

FSM 216 - Introduction to Wines, Spirits and Beverage Management (3 Credits)
3 lecture, 3 total contact hours
Studies alcoholic beverage classifications, alcoholic beverage laws, wine regions, purchasing and control, promotion and service. Beverage management principles and theories are presented which support and reinforce the practical aspects. Students 18 years of age may register for the class according to State Law 235 ILCS 5/Article 6-1. Prerequisite: Students 18 and over may enroll in this class.
Typically offered: Fall

FSM 220 - Hospitality Promotions (3 Credits)
3 lecture, 3 total contact hours
Provides Hospitality Management majors with a solid background in hospitality promotions. Focuses on promoting highly perishable, people-intensive intangibles in a highly competitive environment.
Typically offered: Fall

FSM 230 - Hospitality Law and Risk Management (3 Credits)
3 lecture, 3 total contact hours
Surveys our legal system as applied to the hospitality industry. Examines contracts, torts and various labor laws pertinent to the industry. Analyzes insurance costs, including fire, accident, worker's compensation and employee liability and their effect on various types of facilities.
Typically offered: Spring

FSM 256 - Sustainable Tourism (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Explores the principles, practices, and challenges of sustainable tourism development. This course provides students with a comprehensive approach to how tourism can be managed in a way that respects the environment, supports local communities, and preserves cultural heritage for future generations.
Typically offered: Spring

FSM 260 - Tourism and Destination Management (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides students with a business perspective on issues most important to the tourism industry by exploring destination management, the economic and social impacts of tourism, and global issues in tourism. Best practices through international insights are also discussed.
Typically offered: Fall

FSM 262 - Cultural Tourism (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides a comprehensive overview of the six categories of cultural tourism: visual arts, rituals, traditions, performing arts, events, and nature are discussed. Students will learn the principles, practices, and philosophies that affect the cultural, social, economic, psychological, and marketing aspects of human travel and the tourism industry.
Typically offered: Spring

FSM 299 - Topics in Hospitality Management (0.5-3 Credits)
.5 - 3 lecture, .5 - 3 total contact hours
Studies selected issues or topics in hospitality management. The exact content and instructional methodology will vary semester to semester depending on the material to be studied. A syllabus or course outline containing additional information will be available with pre-registration materials each time that the course is offered. This course may be repeated two times to a maximum of three credit hours.
Typically offered: Spring

Humanities (HUM)

HUM 101 - Ancient through the Medieval West (3 Credits)
3 lecture, 3 total contact hours
Explores architecture, art, history, literature, music, philosophy and the theatre affiliated with the Western tradition from Prehisty through the Medieval Era. May include a special focus; consult the course schedule for specific topics. NOTE HUM 101 and HUM 102 need not be taken in sequence. IAI HF 902
World Culture and Diversity
Typically offered: Fall, Spring, Summer

HUM 102 - Renaissance through the Modern West (3 Credits)
3 lecture, 3 total contact hours
Explores architecture, art, history, literature, music, philosophy, and the theatre of the Western world from the Renaissance to the present. May include a special focus; consult the course schedule. IAI HF 903
World Culture and Diversity
Typically offered: Fall, Spring

HUM 104 - Introduction to Middle Eastern Civilizations (3 Credits)
3 lecture, 3 total contact hours
Examines the cultural structures and the literary, visual, and performing arts of the various societies of the Middle East. Examines and compares the great contributions these cultures have made in the various arts as living artifacts to both the present day Middle East and to other cultures including those of the West. IAI HF 904N
World Culture and Diversity
Typically offered: Fall, Spring, Summer

HUM 105 - Great Ideas of World Civilizations (3 Credits)
3 lecture, 3 total contact hours
Introduces students to a selection of formative historical and contemporary texts in a variety of disciplines, including philosophy, the social sciences, literature, gender/multicultural studies and the history of science. (Also listed as HST 105, Credit will be given for either HUM 105 or HST 105, but not both.) IAI H9 900
Typically offered: Fall, Spring, Summer

HUM 106 - The Cultures of Asia (3 Credits)
3 lecture, 3 total contact hours
Examines the arts of Asian cultures from ancient times to the present. Studies examples of the visual arts, music, dance, literature, world views, and religious traditions from selected civilizations in Asia, south of Russia, excluding the countries of the Middle East. IAI HF 904N
World Culture and Diversity
Typically offered: Fall, Spring, Summer

HUM 107 - The Cultures of Africa (3 Credits)
3 lecture, 3 total contact hours
Examines the arts of African cultures from ancient times to the present. Studies examples of the visual arts, music, dance, literature, world views, and religious traditions from selected civilizations in North Africa, the Sahel, South Africa, Central and East Africa, and West Africa, excluding countries associated with the Middle East. IAI HF 904N
World Culture and Diversity
Typically offered: Fall, Spring

HUM 108 - Introduction to Black and Latino Studies (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides students the opportunity to examine the rich and intertwined histories of Black and Latino communities in the U.S. and the broader Americas. It incorporates history, literature, art, music, sociology, and political science to explore topics such as racial identity, social justice, resistance movements, and the impact of colonialism and slavery. The course focuses on the U.S. as well as the global connections across Latin America, the Caribbean, and Africa.
World Culture and Diversity

HUM 110 - Women and Creativity (3 Credits)
3 lecture, 3 total contact hours
Explores the nature of female creativeness, focusing on women in the traditionally male arenas of art and literature and on areas in which the female creative impulse manifests itself under other names: the shaping of social attitudes, domestic arts and religious experiences. IAI HF 907D
World Culture and Diversity
Typically offered: Fall, Spring, Summer

HUM 115 - International and Regional Studies in Humanities (1-4 Credits)
1 - 4 lecture, 1 - 4 total contact hours
Students travel with faculty to international or regional locations which may vary from year to year to study the humanities. May emphasize the literature, language, philosophy or humane arts of the locale visited. Presentation by onsite individualized study, lectures, field trips. Classes held on campus prior to and following the off-campus learning experience. Travel expenses are paid for by the student. One Credit: Students must attend all classes and field trips, submit a daily log covering one week of travel and write a personal essay of at least five typewritten pages. Two Credits: Students must attend all classes and field trips, submit a log covering one-two weeks of travel and write a research paper of at least eight typewritten pages, plus bibliography and footnotes. Three Credits: Students must attend all classes and field trips, submit a log covering three weeks of travel and write a research paper of at least 10 typewritten pages, plus bibliography and footnotes. Four Credits: Students must attend all classes and field trips, submit a log covering four weeks of travel and write a research paper of at least 12 typewritten pages, plus bibliography and footnotes.
Typically offered: Fall, Spring, Summer

HUM 120 - Classical Mythology (3 Credits)
3 lecture, 3 total contact hours
Studies the myths of Greece and Rome. Focuses on the stories of gods and heroes in classical literature and art. Considers the influence of classical mythology on later Western culture. IAI H9 901
Typically offered: Fall, Spring, Summer

HUM 125 - World Mythology (3 Credits)
3 lecture, 3 total contact hours
Studies world mythic themes and patterns, excluding those of Greece and Rome. Focuses on archetypal figures/situations, symbolism, and figurative language found in creation stories, heroic legends and/or other traditional narratives. May include a special focus; consult the course schedule. IAI H9 901
World Culture and Diversity
Typically offered: Fall, Spring, Summer

Independent Study (IDS)

IDS 290 - Independent Study (1-4 Credits)
1 - 4 lecture, 1 - 4 total contact hours
Designed to permit the student to pursue a course of study not typically available under traditional course structure. The student will contract with the appropriate faculty member for the objectives to be accomplished in the course. May be repeated up to a maximum of four credit hours. Prerequisite: Sophomore standing, C average or consent of instructor.
Typically offered: Fall, Spring

Insurance (INS)

INS 110 - Insurance Fundamentals (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Defines the insurance mechanism, identifies common types of property-casualty insurance, and explains how insurance benefits society. Introduces the core functions of insurance organizations: marketing, underwriting and claims. Discusses insurance policy structure, basic types of policy provisions and a simple method for analyzing policies. Reviews career options in the insurance industry.
Typically offered: Fall

INS 120 - Property and Liability Insurance Principles (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Presents the basic principles of insurance. Provides an inroduction to insurance regulation, financial performance, marketing techniques, underwriting, claims, risk management, loss exposure and insurance policies. Satisfies the requirements for the industry AINS 21 exam within the Associate in General Insurance Path A Certification.
Typically offered: Spring

INS 220 - Personal Insurance (3 Credits)
3 lecture, 3 total contact hours
Offers an understanding of property and liability loss exposures faces by most individuals and families, and analyzes the types of insurance coverage that can be used for treating those exposures such as personal liability, inland marine, auto, life, health, and goverment programs. Satisfies the requirements for the Institutes AINS 22 examination within the Assoication in General Insurance Path A Certification. Prerequisite: INS 120 or AINS 21 Certification.
Typically offered: Fall

INS 240 - Commercial Insurance (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Analyzes commercial coverage including property, business income, inland and ocean marine, crime, equipment breakdown, general liability, auto, workers compensation, and package policies. Satisfies the requirements for The Institutes AINS 23 examination within the Associate in General Insurance Path A Certification. Prerequisite: INS 120 or AINS 21 Certification.
Typically offered: Spring

Interior Design (IND)

IND 100 - Theory and Fundamentals of Design (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Introduces students to theoretical principles and nomenclature of design. Studies theories pertaining to elements and principles of design, color theory, psychology and color phenomenology as it relates to interior design. Studies human environment, proxemics and spatial behaviors. Examines universal design, designing for specific cultures and genders as well as other topical subjects. Covers the interior design profession, professional organizations and career employment. Recommended Corequisite: IND 101.
Typically offered: Fall, Spring

IND 101 - Interior Design Studio I (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Studies interior design room arrangement and furniture selection. Investigates the elements and principles of design as they relate to interiors. Studies aesthetic aspects of interior design. Develops interior projects using space planning, furniture selection, the development of furniture elevations, and presentation techniques. (NOTE: Students will need to purchase a drafting kit in addition to textbooks. Expense estimate may exceed $100.) Prerequisite: Prior or concurrent enrollment in IND 100
Typically offered: Fall

IND 102 - Interior Design Studio II (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Continues the study of interior space planning and furniture selection as it relates to a functional and aesthetic interior. Investigates the use of fabric, finishes, color, and texture to complement the interior. Explores aesthetic application of color in interior design. Prerequisite: IND 101, IND 103 and IND 106 with grades of C or better
Typically offered: Spring

IND 103 - History of Furniture and Interior Architecture (3 Credits)
3 lecture, 3 total contact hours
Surveys furniture, design motifs and structures from antiquity to the present with an emphasis on European and American traditions, their history, and contemporary applications. Addresses the many types of furniture and architectural interiors as well as the historical and cultural factors that influenced their emergence. Investigates the role of manufacturing processes and innovations to deepen the students' understanding of the furniture and interiors. Explores the history of the marketing and sale of furnishings as well as its relevance to contemporary commercial applications.
Typically offered: Spring

IND 106 - Materials and Sources (3 Credits)
3 lecture, 3 total contact hours
Studies the construction and finishing of materials other than those of a structural nature, including limitations, quality control, application, uses, installation methods, and quantity calculations. Examines sources available to the designer.
Typically offered: Fall

IND 107 - Interior Perspective and Rendering (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Studies drawing and sketching methods of furniture and interior spaces. Develops drawing techniques for interior perspective views of buildings. Explores the use of axonometric drawing and the use of various media to present the three-dimensional delineation of interior design. Examines balance and proportions of interior items within a three-dimensional space. Uses drawing techniques and color to define light and shadow, textures, and material characteristics. Prerequisite: ART 121, IND 100 and IND 101 with grades of C or better.
Typically offered: Fall, Spring

IND 110 - Problem Solving and Design Communication (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Introduces the process of visual communication for interior designers. Identifies interior and architectural challenges and examines the design process of problem-solving through space analysis and planning. Utilizes collaborative methods to develop appropriate design strategies and solutions. Applies research and the use of elements and principles of design to skillfully manipulate interior spaces. Utilizes conceptual sketching and oral presentation to communicate design solutions. Prerequisite: IND 100 and IND 101 with grades of C or better.
Typically offered: Spring

IND 114 - Codes for Interior Designers (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Examines how interior building codes, governmental standards and federal regulations affect and are applied to interior design. References the International Codes, National Fire Protection Association standards and various accessibility requirements including the Americans with Disabilities Act. Prerequisite: IND 101 with a grade of C or better.
Typically offered: Fall, Spring

IND 116 - Interior Detail/Construction Drawing (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Studies the methods and materials of interior construction and the graphic methods of communicating this information. Practices fundamental drafting conventions and develops drawing skills necessary for the production of working drawings such as floor plans, elevations, sections, finish schedules, reflected ceiling plans, and details. Discusses methods of electrical, plumbing, and HVAC distribution. Prerequisite: ARC 116, IND 100 and IND 101 with grades of C or better.
Typically offered: Spring

IND 203 - 3-D Design Studio (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Studies advanced problems in three-dimensional interior design which concentrate on the development of relationships of interior furnishings, walls, floors and ceilings into a unified design. Applies principles and elements of design theory within a three-dimensional volume of space. Prerequisite: IND 102, IND 107, IND 114 and IND 116 with grades of C or better.
Typically offered: Fall

IND 206 - Architectural Lighting (3 Credits)
3 lecture, 1 lab, 4 total contact hours
Examines artificial and natural lighting in interior design. Considers environmental comfort, effects on colors and information required for selection and placement of luminaires. Reviews lighting sources, sustainability energ codes and human performance. Acquaints students with lighting documentation and calculation methods as they relate to the lighting design process. Prerequisite: IND 101 with a grade of C or better.
Typically offered: Fall

IND 207 - Interior Design Internship (3 Credits)
1 lecture, 10 clinical/other, 11 total contact hours
Provides an opportunity for selected students who meet the prerequisite requirements to work with professionals in approved residential and contract design firms, retail stores, wholesale stores and showrooms specializing in interior design and related products. Students are exposed to various aspects of the interior design field and present a report about their experience. Recommended preparation: ENG 101 or ESL coursework. Prerequisite: IND 203, IND 206 and IND 230 with grades of C or better, or consent of coordinator.
Typically offered: Spring, Summer

IND 209 - Contract Design Studio (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Applies interior design skills and disabled access to contract interior projects, including floor plans, elevations or perspectives, cabinet drawings, lighting plans, selection of contract furnishings and finishes. Projects may include office spaces, restaurants and other public buildings. Prerequisite: ARC 116, IND 116, IND 203, IND 206, and IND 230 with grades of C or better.
Typically offered: Spring

IND 211 - Professional Practices for Interior Design (3 Credits)
3 lecture, 3 total contact hours
Examines the business principles required for a successful interior design practice, including establishing an interior design practice, design project business issues, billing, writing client contracts, interviewing and job opportunities. Prerequisite: IND 101 with a grade of C or better.
Typically offered: Spring

IND 215 - Topics in Interior Design (0.5-3 Credits)
.5 - 3 lecture, .5 - 3 total contact hours
Studies selected problems or topics in interior design. The exact content and instructional methodology will vary semester to semester depending on the material to be studied. A syllabus or course outline containing additional information will be available with pre-registration materials each time that the course is offered. This course may be repeated two times to a maximum of three credit hours.

IND 217 - Advanced Sketching and Perspective Drawing (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Reviews the development of two-point mechanical perspective drawing. Studies freehand drawing and sketching methods of interior and exterior spaces. Develops drawing techniques for interior perspective views of buildings. Explores the use of various media to define light, shadows, textures, and material characteristics. Prerequisite: ART 121 and IND 107 with grades of C or better.
Typically offered: Summer

IND 220 - CAD Studio (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Covers advanced CAD techniques for two-dimensional space planning and interior elevations. Introduces 3-dimensional CAD and 3-D sketching to develop perspectives and walk-throughs of interior spaces. Emphasizes development of computer graphics to augment and represent interior spaces. Prerequisite: ARC 116 with a grade of C or better.
Typically offered: Spring

IND 230 - Kitchen Design Studio (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Examines the technical aspects and accessibility issues of designing kitchens. Practices fundamental drafting conventions including lettering, line work, dimensioning, and symbol usage. Develops drawing for the kitchen including floor plans, electrical and lighting plans, elevations, and cabinet sections using NKBA guidelines and graphic presentation standards. Prerequisite: IND 102, IND 114 and IND 116 with grades of C or better.
Typically offered: Fall

IND 232 - Kitchen and Bath CAD Studio (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Covers an introduction to kitchen and bath industry software techniques for two-dimensional space planning and interior elevations. Introduces 3-dimensional CAD to develop perspectives and walk-through of interior spaces. Emphasis is on the development of computer graphics to augment and represent kitchens, baths, and other interior space. Prerequisite: IND 230 with a grade of C or better, or consent of instructor.
Typically offered: Summer

IND 233 - Bathroom Design Studio (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Examines the technical aspects and accessibility issues of designing bathrooms. Practices fundamental drafting conventions including lettering, line work, dimensioning, and symbol usage. Develops drawing for the bathroom including floor plans, electrical and lighting plans, elevations, and cabinet sections using NKBA guidelines and graphic presentation standards. Prerequisite: IND 102, IND 114, and IND 116 with grades of C or better.
Typically offered: Spring

IND 250 - Portfolio Development (1 Credit)
1 lecture, 1 lab, 2 total contact hours
Prepares students to enter the job market when completing this capstone course. Develops a professional presentation portfolio utilizing printed and multimedia applications. Explores, examines, and executes various presentation options. Discusses writing and designing a resume, cover letter, and interviewing techniques. Emphasizes organizing a strong body of work focused on a specific area of expertise dictated by the students' individual career goals. Prerequisite: ARC 116, IND 203 and IND 230 with grades of C or better OR ARC 116 and ARC 110 or ARC 213 with grades of C or better, or consent of program coordinator.
Typically offered: Spring

IND 281 - Environmental Design (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Explores building systems and their impact on the environment. Indoor air quality, thermal control, lighting, acoustic and water systems will be studied including solar power, wind power and other sustainable design energy alternatives. Applies these systems to various sustainable design projects and practices. Investigates LEED certification and other legislative issues. Studies the physical and psychological implications of environmental stress, crowding and institutional living and applies them to projects. Prerequisite: IND 101 with a grade of C or better.
Typically offered: Fall

Japanese (JPN)

JPN 101 - Elementary Japanese I (4 Credits)
4 lecture, 4 total contact hours
Introduces the language skills of pronunciation and useful expressions, listening, speech patterns, syllabary reading and writing, basic vocabulary and grammar. Cultural and sociolinguistic orientation.
Typically offered: Fall, Spring, Summer

JPN 102 - Elementary Japanese II (4 Credits)
4 lecture, 4 total contact hours
Continues JPN 101. Skill developments in simple, everyday conversation and contemporary and idiomatic expressions; continued mastery of beginning grammar, reading and writing, and more vocabulary. Orientation in verbal and non-verbal skills and simple composition. Prerequisite: JPN 101 with a grade of C or better, or consent of instructor.
Typically offered: Fall, Spring, Summer

JPN 201 - Intermediate Japanese I (4 Credits)
4 lecture, 4 total contact hours
Continues JPN 102. Emphasis on more complex conversation and advanced grammatical components; continued reading and writing. Emphasis on advanced composition. Prerequisite: JPN 102 with a grade of C or better, or consent of instructor.
Typically offered: Fall

JPN 202 - Intermediate Japanese II (4 Credits)
4 lecture, 4 total contact hours
Continues JPN 201. Accuracy and ease in more complex conversation; advanced study of reading and writing. Study of more complex syntax and composition. IAI H1 900 Prerequisite: JPN 201 with a grade of C or better, or consent of instructor.
Typically offered: Spring

JPN 205 - Japanese Intensive Oral Practice (3 Credits)
3 lecture, 3 total contact hours
Develops oral facility with the Japanese language using specially designed exercises in pronunciation, stress, and rhythm. Discusses individual readings of modern Japanese works in class. Assigns written and oral compositions based on readings. Helps students to bridge the gap between the intermediate and advanced levels. Develops the ability to use the Japanese language with fluency and accuracy of expression that is achieved by extensive oral conversation in class. Prerequisite: JPN 202 with a grade of C or better, or consent of instructor.
Typically offered: Fall, Spring, Summer

Kinesiology (KIN)

KIN 100 - Physical Fitness I (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Provides a structured areobic and strength training program designed for individuals free of heart, pulmonary and metabolic disorders. The course offers the student computer-assisted fitness evaluations, guidance in developing and individualized exercise prescription and professional supervision. Prior to beginning the program, a physician supervised exercise stress test is required for men over 45 years or older and women over 55 years or older, and all individuals regardless of age who have multiple cardiovascular risk factors. The stress test will be waived, provided a written physician clearance can be obtained. This class is designed for students who are able to safely participate in cardiorespiratory and resistance activities and may include the use of equipment. This class is not designed for students who may have known heart, pulmonary, metabolic, physiologoical diseases and/or orthopedic challenges. By registering for this class, you assume the full risk of any injuries, damages or loss which may be sustained and are responsible for any associated medical costs or individual damages. This course may be taken twice for credit.
Typically offered: Fall, Spring, Summer

KIN 101 - Physical Fitness II (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Provides a continuation of KIN 100. Introduces other wellness components as well, such as nutrition and stress management. This course may be taken twice for credit. Prerequisite: KIN 100 with a grade of "C" or better.
Typically offered: Fall, Spring, Summer

KIN 106 - Pilates (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Employs a system of movements to increase range of motion, balance, strength and awareness of the mind/body connection. This course may be repeated up to a maximum of two credit hours. This class is designed for students who are able to safely participate in cardiorespiratory and resistance activities and may include the use of equipment. This class is not designed for students who may have known heart, pulmonary, metabolic, physiologoical diseases and/or orthopedic challenges. By registering for this class, you assume the full risk of any injuries, damages or loss which may be sustained and are responsible for any associated medical costs or individual damages.
Typically offered: Fall, Spring

KIN 107 - Yoga I (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Provides students with the opportunity to develop a strong healthy body and an increased level of mental and physical relaxation through the use of yoga postures and breathing techniques. Students will learn to recognize the presence of tension and be able to consciously relieve it. This course may be taken twice for credit. This class is designed for students who are able to safely participate in cardiorespiratory and resistance activities and may include the use of equipment. This class is not designed for students who may have known heart, pulmonary, metabolic, physiologoical diseases and/or orthopedic challenges. By registering for this class, you assume the full risk of any injuries, damages or loss which may be sustained and are responsible for any associated medical costs or individual damages.
Typically offered: Fall, Spring, Summer

KIN 111 - Basic Weight Training (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Provides the basic knowledge of the proper use of weight training equipment. Students will learn about the specific muscle groups used during weight training and the different methods of developing muscular strength and endurance. Students will also be able to apply the principles that they have learned and ultimately develop their own individualized program. This course may be taken twice for credit. This class is designed for students who are able to safely participate in cardiorespiratory and resistance activities and may include the use of equipment. This class is not designed for students who may have known heart, pulmonary, metabolic, physiologoical diseases and/or orthopedic challenges. By registering for this class, you assume the full risk of any injuries, damages or loss which may be sustained and are responsible for any associated medical costs or individual damages.
Typically offered: Fall, Spring, Summer

KIN 112 - Intermediate Weight Training (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Provides the advanced student with a more challenging strength training program. Students will review the muscles used in a personal strength training program, the safety issues regarding appropriate lifts and use of the equipment, contra-indicated movements, stretching and spotting techniques, warm-up and cool-down techniques. In addition, students will also learn about the use and misuse of ergogenic aids, steroids and nutritional supplements. Students will have the opportunity to develop and participate in their own individualized muscle strength and endurance training program. This course may be taken twice for credit.
Typically offered: Fall, Spring, Summer

KIN 113 - Advanced Weight Training (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Provides weight training instruction with an emphasis on Olympic and power lifts. Students will have the opportunity to develop advanced weight training skills as well as practice Olympic and power techniques. This course may be taken twice for credit.
Typically offered: Fall, Spring, Summer

KIN 114 - Sport Performance Fitness (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Provides physical conditioning theories and drills for improvment in speed, agility, quickness, strength and power (SAQSP). Applies sport-specific plyometric and high intensity fitness activity. This course may be taken twice for credit.
Typically offered: Fall, Spring, Summer

KIN 139 - Physical Activity Topics (0.5-1 Credits)
0 lecture, 1 - 2 lab, 1 - 2 total contact hours
Provides students with a variety of mind/body modalities to improve physical fitness. Fundamental skills, terminology, proper equipment and safety are emphasized. This course may be taken twice for credit.
Typically offered: Fall, Spring, Summer

KIN 140 - Modern Dance (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Explores movement potential, increases technical proficiency and broadens rhythm background; skill in technique and composition stressed. This course may be taken twice for credit.
Typically offered: Fall, Spring

KIN 142 - Introduction to Ballet (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Provides instruction for students with little or no previous training in ballet. This course may be taken twice for credit.
Typically offered: Fall, Spring

KIN 143 - Jazz Dance (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Provides students with the elements of ballet, modern dance and Afro-Haitian to combine them into a dance form that can be idiomatic, syncopated and fast paced. This course may be taken twice for credit.
Typically offered: Fall, Spring

KIN 162 - Judo and Self-Defense (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Provides a basic understanding and practical application of judo and self-defense techniques. Includes proper training methods, physical conditioning, techniques, and rules and regulations for contests. Advanced students will be instructed on Randori and preparation for competition. This course may be taken four times for credit. This class is designed for students who are able to safely participate in cardiorespiratory and resistance activities and may include the use of equipment. This class is not designed for students who may have known heart, pulmonary, metabolic, physiologoical diseases and/or orthopedic challenges. By registering for this class, you assume the full risk of any injuries, damages or loss which may be sustained and are responsible for any associated medical costs or individual damages.
Typically offered: Fall, Spring

KIN 170 - Basketball (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Provides instruction in the basic skills, rules, scoring and terminology for the sport of basketball. Students will have the opportunity to practice their skills in game situations. This course may be taken twice for credit. This class is designed for students who are able to safely participate in cardiorespiratory and resistance activities and may include the use of equipment. This class is not designed for students who may have known heart, pulmonary, metabolic, physiologoical diseases and/or orthopedic challenges. By registering for this class, you assume the full risk of any injuries, damages or loss which may be sustained and are responsible for any associated medical costs or individual damages.
Typically offered: Fall

KIN 171 - Volleyball (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Provides instruction in the basic skills, rules, scoring and terminology for the sport of volleyball. Students will have the opportunity to practice their skills in game situations. This course may be taken twice for credit.
Typically offered: Fall, Spring

KIN 179 - Wrestling (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Provides instruction in basic collegiate wrestling techniques. Emphasis is on offensive and defensive moves, strategy and physical conditioning. Students will have the opportunity to practice the skills that they have learned in a competitive situation. This course may be taken twice for credit. This class is designed for students who are able to safely participate in cardiorespiratory and resistance activities and may include the use of equipment. This class is not designed for students who may have known heart, pulmonary, metabolic, physiologoical diseases and/or orthopedic challenges. By registering for this class, you assume the full risk of any injuries, damages or loss which may be sustained and are responsible for any associated medical costs or individual damages.
Typically offered: Fall, Spring

KIN 180 - Fencing (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Provides students with the beginning fundamentals of fencing with an emphasis in epee. Explains and demonstrates footwork and handwork specific to epee, followed by practice drills in pairs by students with the supervision of the instructor. The fitness guidelines followed in this course are designed for the apparently healthy individual and are not designed for individuals with known cardiovascular, pulmonary or metabolic diseases. Students are encouraged to see a physician before embarking on any exercise program. This course may be taken twice for credit. This class is designed for students who are able to safely participate in cardiorespiratory and resistance activities and may include the use of equipment. This class is not designed for students who may have known heart, pulmonary, metabolic, physiogoical diseases and/ or orthopedic challenges. By registering for this class, you assume the full risk of any injuries, damages or loss which may be sustained and are responsible for any associated medical costs or individual damages.
Typically offered: Fall, Spring

KIN 181 - Boxing (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Provides students with skills and techniques of boxing. Emphasizes proper stance, technique, footwork, offensive and defensive moves. This course may be taken twice for credit.
Typically offered: Fall, Spring

KIN 183 - Baseball (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Provides instruction in the fundamental skills, rules, scoring, and terminology for baseball. Includes practice drills, safety standards, and conditioning. Students will have the opportunity to practice their skills in game situations. This course may be taken twice for credit. This class is designed for students who are able to safely participate in cardiorespiratory and resistance activities and may include the use of equipment. This class is not designed for students who may have known heart, pulmonary, metabolic, physiological diseases and/ or orthopedic challenges. By registering for this class, you assume the full risk of any injuries, damages or loss which may be sustained and are responsible for any associated medical costs or individual damages.
Typically offered: Fall, Spring

KIN 184 - Soccer (1 Credit)
0 lecture, 2 lab, 0 clinical/other, 2 total contact hours
Provides instruction in the basic skills, rules, scoring, and terminology for soccer. Students will have the opportunity to practice their skills in game situations. This course may be taken twice for credit. This class is designed for students who are able to safely participate in cardiorespiratory and resistance activities and may include the use of equipment. This class is not designed for students who may have known heart, pulmonary, metabolic, physiological diseases and/ or orthopedic challenges. By registering for this class, you assume the full risk of any injuries, damages or loss which may be sustained and are responsible for any associated medical costs or individual damages.
Typically offered: Fall, Spring

KIN 200 - Introduction to the Field of Kinesiology (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides a fundamental introduction to the academic content areas that make up the discipline of kinesiology including: anatomy and physiology, exercise science, biomechanics, motor control and learning, psychology and sociology. Introduces the professional field of kinesiology and looks at career paths within the major such as rehabilitation, sports management, personal training, and physical education. This course asseses students' personal traits and professional skillsets, with emphasis on development for increased candidacy in academic and/or professional pursuits related to the field of kinesiology.
Start Smart
Typically offered: Fall, Spring, Summer

KIN 201 - Instructional Strategies for Physical Education (3 Credits)
3 lecture, 3 total contact hours
Provides instruction on the growth and development of K-12 children and the planning and organization of elementary physical education programs. (formerly PED 211)
Typically offered: Fall

KIN 202 - Standard First Aid and CPR (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides a comprehensive first aid course which is taught under the guidelines of the American Heart Association (AHA). Includes the American Heart Association Basic Life Support (BLS) component which covers adult, child and infant cardiopulmonary Resuscitation (CPR) and the use of the Automated External Defibrillator (AED). Prepares students to respond to emergency situations with confidence in ther ability to perform the necessary skills. Two certificates are issued--Basic Life Support (BLS) and Heartsaver First Aid--after successful completion of the skills and written tests.
Typically offered: Fall, Spring, Summer

KIN 203 - Wellness for Life (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides students with the knowledge of how to become fit and well, and the information and tools which will assist teem in formulating a personal fitness/wellness program. The course will cover physical fitness, nutrition, weight management, addictive behaviors, diseases which are lifestyle related, and stress management. Students are actively involved in their learning process through the use of computers and lab sessions and will be required to attend weekly workout sessions in the fitness center. This class is designed for students who are able to safely participate in cardiorespiratory and resistance activities and may include the use of equipment. This class is not designed for students who may have known heart, pulmonary, metabolic, physiologoical diseases and/ or orthopedic challenges. By registering for this class, you assume the full risk of any injuries, damages or loss which may be sustained and are responsible for any associated medical costs or individual damages.
Typically offered: Fall, Spring, Summer

KIN 214 - Exercise Technique and Instruction (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Provides practical instruction for the safe and effective execution of resistance exercise for all of the major joints of the body. Introduces students to basic strength training techniques and principles with functional anatomy. Exposes students to a variety of forms of resistance training. Emphasizes coaching and instruction of exercise with correction of errors and progression strategies. Recommended: KIN 111 (Basic Weight Training) or equivalent experience.
Typically offered: Fall

KIN 217 - Fundamental Sport Skills (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Places an emphasis on movement skill and knowledge for teaching physical education and is aligned with the National Standards for K-12 Physical Education. Students will develop common and specialized knowledge related to the skills needed for teaching sports.
Typically offered: Spring, Summer

KIN 218 - Adaptive Physical Education (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides students with the knowledge and skills to create physical education lessons that meet the needs of individuals with disabilities as well as the professional and legal mandates for teaching individuals with disabilities.

KIN 220 - Introduction to Coaching (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides students with the knowledge of the critical components involved in the profession of coaching. Helps students develop their coaching philosophy, learn methods of motivating athletes, learn to teach sort techniques and tactics, develop training/fitness conditioning programs, plan season workouts, understand team management, and understand coaching ethics, law and liability. Upon completion of this course, students will be able to take the American Sport Education Program (ASEP) Coaching Principles Certification exam. Note: Passing the certification exam is part of the rquirements for obtaining the Bronze Level ASEP Coaching Certification. (formerly PED 218)
Typically offered: Spring

KIN 221 - Care and Prevention of Athletic Injuries (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides students wtih the basic principles in the prevention and care of injuries related to sport activities. This course teaches students who plan to coach how to make the correct decision during athletic play and provides them with the latest first aid protocols. The course meets the requirements for the American Sport Education Program (ASEP) Sport First Aid course. Students have the opportunity to take the ASEP test upon successful completion of the course. The course includes sports first aid, tapin and padding techniques, the fitting of protective equipment and the role of coaches, parents, administrators, health care workers, fitness specialists and athletes in injury prevention and care. An introduction of the athletic training profession will also be covered.
Typically offered: Spring, Summer

KIN 222 - Sports Officiating (2 Credits)
2 lecture, 2 total contact hours
Provides comprehensive instruction on rules and officiating techniques in interscholastic sports. Students will also have the necessary preparation for the Illinois High School Athletic Association certification exam as well as other certifying agencies. Officiating opportunities are provided in college intramurals and intercollegiate athletic programs. Some sports covered--but not limited to--include basketball, baseball and volleyball.
Typically offered: Spring

KIN 223 - Sports Psychology (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides an overview of sport and exercise psychology by focusing on human behavior in certain types of situations in sport and exercise settings. Examines what motivates people, how they regulate their thoughts, feelings and emotions and how their behaviors can become more effective. Also teaches students how to apply these psychological concepts.
Typically offered: Spring

KIN 224 - Sociology of Sport (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides students with a global and issue-oriented approach to the study of how sport has evolved and influenced us in our society. Students will examine topics which include—but are not limited to—the effects of sport involvement on socialization; sports and children; violence in sports; gender and sports; race religión and ethnicity and sports; and sport and the media.
Typically offered: Fall

KIN 225 - Sports Nutrition (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides in-depth study of the physiological principles behind sports nutrition as it relates to the influence of nutrition on exercise performance, exercise training and recovery. (Same course as DIT 225; credit will be given for one, not both)
Typically offered: Spring

KIN 230 - Exercise Science (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides an understanding of the physiological response and adaptation to exercise and other environmental stresses. Topics related to neuromuscular adaptation, metabolism, cardiorespiratory physiology and hormonal responses will be examined. In addition, te physiological effects of age, gender, body composition, and the environment on human performance will be discussed. Prerequisite: Placement into ENG 101 https://www.harpercollege.edu/testing/english-placement-grid.php

KIN 231 - Fitness Assessment and Programming (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides students with a study of the basic scientific components of fitness. Includes the measurement of different indices of physical fitness common to corporate, clincial and lab settings. Addresses principles of exercise programming. Test results are used in developing individualized exercise prescriptions to improve cardiorespiratory fitness, muscular fitness, body composition and flexibility. Prerequisite: Prior or concurrent enrollment in KIN 230 with a grade of C or better.
Typically offered: Fall

KIN 234 - Personal Training Practicum (3 Credits)
2 lecture, 3 lab, 5 total contact hours
Provides students experience with practical applicaton of knowledge and hands-on skills in working with a diverse clientele. Students will conduct fitness assessments, design exercise programs, instruct clients in safe and effective program implementation, and evaluate the effectiveness of exercise regimens specific to client needs in a supervised fitness setting. The course includes a campus-based lecture series that provides review and supplemental knowledge of the personal training profession, with an emphasis on national certification exam preparation. Valid Heartsaver FIrst Aid CPR AED certification through the American Heart Association is required to participate in this course. Prerequisite: KIN 214 and KIN 231 with grades of C or better.
Typically offered: Spring

KIN 236 - Functional Anatomy (3 Credits)
3 lecture, 3 total contact hours
Examines the structural and functional components of the human musculoskeletal system as it relates to normal and abnormal movement. Addresses joint structure and function, forces that effect motion and the resultant kinematics. Emphasis is on musculoskeletal anatomy. Prerequisite: Placement into ENG 101 https://www.harpercollege.edu/testing/english-placement-grid.php Also BIO 135, BIO 260 or equivalent is recommended.
Typically offered: Fall, Spring, Summer

KIN 250 - Topics in Kinesiology (1-3 Credits)
1 - 3 lecture, 0 lab, 1 - 3 total contact hours
Provides students with an opportunity to examine different topics that fall under the kinesiology field. Content will change from semester to semester. A course outline will be available for the topic prior to registration. May be taken twice for up to a maximum of six (6) credit hours.

Law Enforcement (LEJ)

LEJ 101 - Introduction to Criminal Justice (3 Credits)
3 lecture, 3 total contact hours
Studies the history, role, development, and constitutional aspects of law enforcement and public safety. Review of agencies and functions involved in processes of administration of criminal justice. IAI CRJ 901 Start Smart
Typically offered: Fall, Spring, Summer

LEJ 104 - Corrections (3 Credits)
3 lecture, 3 total contact hours
Provides the student with an integrated knowledge about the system through which the criminal offender is processed. Emphasis will be placed upon the philosophical bases of punishment and treatment techniques in institutional community-based programs plus parole programs. IAI CRJ 911
Typically offered: Fall, Spring

LEJ 107 - Vice and Drug Control (3 Credits)
3 lecture, 3 total contact hours
Studies historical and sociological development problems in drug addiction and vice control; fundamental understanding of narcotic addiction and effects of hypnotic drugs; the operation of lotteries, bookmaking and other types of gambling and prostitution as these factors are involved in the daily routine of police work.
Typically offered: Fall, Spring

LEJ 116 - Forensics I (3 Credits)
3 lecture, 3 total contact hours
Introduces student to the use of scientific disciplines in crime investigation. Identifies the variety of sources of evidence and the means by which comparative analysis can be made. Introduces student to probability theory. Develops skills in crime scene technology, fingerprinting, photography and recording.
Typically offered: Fall, Spring, Summer

LEJ 135 - Patrol Procedures (4 Credits)
3 lecture, 2 lab, 5 total contact hours
Introduces techniques and procedures used by police in job-related activities. Includes discussion and practice in areas such as vehicle stops, initiating investigations, responding to calls, building checks, emergency situations, crowd control and report preparation. Prerequisite: LEJ 101 with a grade of C or better.
Typically offered: Fall, Spring

LEJ 138 - Defensive Techniques (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Introduces principles of self-defense and weaponless control for police and security personnel. Includes psychology, physical and mental preparation, practice in defense and control techniques. Prerequisite: Signed waiver of liability required.
Typically offered: Fall, Spring

LEJ 140 - Introduction to Private Security (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Enables the student to examine the history, nature and scope of private security in modern society. Investigates the basic principles of physical security, internal loss prevention, risk management, physical and environmental controls, and the security function(s) in a corporate structure. Exposes students to operations and career oppportunities exemplified in areas such as retail, hospital, cartage, IT, and proprietary security services.
Typically offered: Fall, Spring

LEJ 200 - Leadership and Ethics for Law Enforcement (3 Credits)
3 lecture, 3 total contact hours
Prepares students to successfully resolve critical ethical and leadership issues they will encounter in their law enforcement careers. Includes developing and maintaining professional integrity, the proper exercise of discretion and authority, morale and motivation, and responsibility for ethical conduct. Prerequisite: LEJ 101 with a grade of C or better.
Typically offered: Fall, Spring

LEJ 201 - Criminal Law (3 Credits)
3 lecture, 3 total contact hours
Examines local, state and federal criminal law. Topics include a definition of the crimes, their elements, and attendant circumstances and related defenses. Prerequisite: LEJ 101 with a grade of C or better.
Typically offered: Fall, Spring, Summer

LEJ 202 - Criminal Procedures (3 Credits)
3 lecture, 3 total contact hours
Examines and analyzes federal and state law relating to arrest, search and seizure, First Amendment activities, interrogation, civil liability of police, and trial procedures. Prerequisite: LEJ 101 with a grade of C or better.
Typically offered: Fall, Spring

LEJ 205 - Juvenile Justice (3 Credits)
3 lecture, 3 total contact hours
Examines organization, jurisdiction and functions of juvenile agencies. Juvenile court movement, juvenile detention, processing and treatment. Statutes and court procedures for juveniles. Problems of juvenile delinquency, theories of causation and prevention programs. Police responsibilities and contacts, current community, state and federal prevention programs. IAI CRJ 914 Prerequisite: LEJ 101 with a grade of C or better.
Typically offered: Fall, Spring

LEJ 210 - Criminology (3 Credits)
3 lecture, 3 total contact hours
Examines the nature and extent of crime in American society, theories of crime causation and control of criminal behavior. IAI CRJ 912
Typically offered: Fall, Spring, Summer

LEJ 214 - Community Policing (3 Credits)
3 lecture, 3 total contact hours
Examines issues in community policing with emphasis on the concept of public and community relations as well as police involvement in community problems. Stresses the role of the police in maintaining public order and safety as a member of the community and in partnership with other community constituencies. Prerequisite: LEJ 101 with a grade of C or better.
Typically offered: Fall, Spring

LEJ 216 - Investigative Process (3 Credits)
3 lecture, 3 total contact hours
Studies the art of investigation to reconstruct facts and circumstances of any event. Prepares students to plan and execute investigations commonly performed in civil and criminal work with concentration on obtaining direct evidence through interviewing, interrogation, observation and the use of documents and records. Prerequisite: LEJ 101 a with grade of C or better.
Typically offered: Fall, Spring, Summer

LEJ 217 - Forensics II (4 Credits)
3 lecture, 2 lab, 5 total contact hours
Provides an expanded understanding of the procedures for collection and analysis of physical evidence, concentrating on the evidentiary significance of items commonly found at crime scenes. Includes detailed methods of processing a crime scene; documentation, location and proper collection of evidence; proper handling of evidence; and analytical techniques of interpreting evidence. Prerequisite: LEJ 116 with a grade of C or better.
Typically offered: Fall, Spring

LEJ 218 - Forensics III (4 Credits)
2 lecture, 4 lab, 6 total contact hours
Focuses on specialized evidence and reconstruction of crime scenes with the use of hands-on training in advanced techniques of identifying, collecting and preserving physical evidence with the use of luminal, biological presumptive tests, trace evidence, arson and explosive evidence. Prerequisite: LEJ 217 with a grade of C or better.
Typically offered: Fall, Spring

LEJ 225 - Crisis Intervention Communication in Law Enforcement (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Introduces the phenomenon of crisis and the theories, methods and techniques used by law enforcement. Includes psychological factors, use of force, and de-escalation communication. Prerequisite: LEJ 101 with a grade of C or better.
Typically offered: Fall, Spring

LEJ 281 - Topics in Law Enforcement and Justice Administration (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Examines selected programs or topics in Law Enforcement and Justice Administration. The specific course content and instructional methodology will vary from semester to semester depending on the material presented. A syllabus containing specific topics will be available with pre-registration materials each time the course is offered. This course may be repeated to a maximum of six credit hours. Prerequisite: LEJ101 with a grade of C or better.
Typically offered: Fall, Spring

LEJ 295 - Forensics IV (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Provides a unique course in crime scene investigation incorporating a combination of lecture and hands-on training utilizing advanced techniques of crime scene analysis and reconstruction. Students will process a crime scene from its initial discovery to the testimony in court. Prerequisite: LEJ 218 with a grade of C or better.
Typically offered: Fall, Spring

LEJ 299 - Law Enforcement Internship (3 Credits)
1 lecture, 10 clinical/other, 11 total contact hours
Provides students with a broad educational experience through appropriate observation and directed experience in operating segments of law enforcement. Conducted under joint partnership agreements between Harper College and host law enforcement agencies. Students will be assigned to the agency in addition to participation in regularly conducted review sessions to assess the student¿s progress, problem areas and the work environment to which they are assigned. (Students in last semester will receive priority in assignments.) Permissible duties and activities will be determined based upon the student¿s qualifications and the agency¿s needs and restrictions. The students must complete 8 hours of service a week for 14 weeks during the semester to earn 3 semester credit hours. Prerequisite: Sophomore standing and consent of program coordinator.
Typically offered: Fall, Spring

Legal Studies (LGS)

LGS 101 - Introduction to Legal Studies (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Surveys the functions of law; courts and lawyers in modern society; analysis of the origin, training and role of the paralegal; professional responsibilities of the lawyer; outline of the fields and specializations within the practice of law; and an introduction to legal research and writing upon a review of the sources (primary and secondary) and legal resources (print and online) available at Harper College.
Start Smart
Typically offered: Fall, Spring, Summer

LGS 103 - Litigation (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Emphasizes the role of the paralegal in litigation. Analyzes civil procedure and instruction in preparation of documents used in lawsuits, covering pre- and post-trial matters, evidentiary problems and assistance during trials. Prerequisite: LGS 101 with a grade of C or better or consent of program coordinator.
Typically offered: Fall, Spring, Summer

LGS 105 - Family Law (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Emphasizes the role of the paralegal in family law. Examines domestic relations law with emphasis on marriage, divorce, annulment, separation agreements, adoption and other legal matters involving the family. Prerequisite: LGS 101 with a grade of C or better or consent of program coordinator.
Typically offered: Fall

LGS 110 - Law Office Technology (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Prepares students to apply popular software packages or suites as they relate to law offices. Introduces software applications specific to the legal field. Teaches students to format legal documents, e-file, and use timekeeping, billing, e-discovery, litigation support, and case management software.
Typically offered: Fall, Spring

LGS 115 - Legal Research and Writing (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Instructs in the basic techniques and skills necessary to conduct legal research and to summarize the results of that research in appropriate written form. Teaches students to use legal research tools (both online/ Westlaw and print) and develop legal reasoning skills to craft written documents such as legal correspondence, legal memoranda, a 50-state survey, and case briefs. Develops practical skills through sequential written assignments which build analytical, research, and writing skills throughout the semester. Prerequisite: LGS 101 with a grade of C or better.
Typically offered: Fall, Spring

LGS 123 - Real Property Law (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides historical study of common law estates and interests. Emphasizes the role of and relationship between the attorney and the paralegal in preparing the more common types of real property transactions and conveyances such as deeds, contracts and leases; drafting problems involving these various instruments; and a study of the system of recording and search of public documents. Students must draft a set of residential closing documents.
Typically offered: Spring

LGS 201 - Tort Law (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Emphasizes the role of the paralegal in tort law. Studies basic tort principles; examines pleading forms used in litigation of various tort actions.
Typically offered: Spring, Summer

LGS 203 - Estate Planning and Probate Law (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Emphasizes the role of the paralegal in estate planning and probate matters. Examines common forms of wills, trusts, tax returns, and probate court forms, survey of legal principles applicable thereto, and instruction in draftsmanship of documents by the paralegal for the supervising attorney.

LGS 205 - Contract Law (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Surveys the principles, history, and sources of contract law. Examines the elements of a valid, enforceable contract. Provides instruction regarding the drafting of contracts. Examines Article 2 of the Uniform Commercial Code regarding the sale of goods. Emphasizes the role of the paralegal in contract law.
Typically offered: Fall, Spring

LGS 206 - Environmental Law (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Studies American environmental law. Students will learn about the Clean Air Act, the Clean Water Act, the Comprehensive Environmental Response, Compensation and Liability Act, the Endangered Species Act, wetlands, asbestos, and environmental racism. Emphasis is placed on the role of the paralegal in an environmental law practice. Ethical issues dealing with environmental law are also presented and discussed.
Typically offered: Spring

LGS 208 - Internship in Legal Studies (3 Credits)
1 lecture, 10 clinical/other, 11 total contact hours
Provides supervised experience in a legal setting to enhance students' technical paralegal skills or the skills necessary to be effective in that legal setting. Students must complete a journal documenting their internship work, and a final portfolio of their work suitable to show a prospective employer. Prerequisites: LGS 101, LGS 103, LGS 115, and an LGS elective with grades of C or better.
Typically offered: Fall, Spring

LGS 210 - The Law of Business Organizations (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Prepares students in the Legal Studies Program to aid in incorporation, corporate record keeping and compliance with administrative regulations. Students learn about the formation of various types of business organizations. This includes the understanding of statutes, rules, forms and releases pertaining to the principal acts administered by the Securities and Exchange Commission.
Typically offered: Fall

LGS 212 - Law Office Management (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Studies law office management relying on the system analysis approach to examine design, methods and develop processes necessary for integrating the paralegal into the hierarchy of the organization of a law office with emphasis on defining functions of the lawyer, paralegal and legal secretary.
Typically offered: Fall

LGS 215 - Today's Law Office (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides the paralegal student with exposure to and training in working within a law office. The Law Office is online and virtual, yet it still is a working law firm. Reviews the intricacies of medium-sized law firm with a strong emphasis on litigation and contract work as well. Upon the completion of this course, the student should retain an understanding of working through legal analysis to solve the problems of clients coming into a law firm. The course shall emphasize the need of the written project as well, including, but not limited to, client letters, motions, memorandums, briefs, deposition summaries and other legal documents produced by paralegals. The student will be familiar with information relevant to law practices including case law, statutes, news sources, administrative law and public records. Prerequisites: LGS 101, LGS 103, LGS 115 and an LGS elective with grades of C or better.
Typically offered: Fall

LGS 216 - Ethics, Legal Writing and the Law Office (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Covers the rules of legal ethics and the regulation of the legal profession. Students learn about law office management technology (including billing, timekeeping, files and records management). Complete legal writing tasks typically assigned in a law firm setting (focusing on ethics-based writing assignments). Prerequisites: LGS 101 with a grade of C or better or consent of program coordinator.
Typically offered: Fall, Spring, Summer

LGS 221 - Bankruptcy Law (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Surveys the principles, history and sources of bankruptcy law in the United States. Examines the law relating to Chapters 7, 9, 11, 12, 13, and 15 of the United States Bankruptcy Code. Provides instruction in the drafting of the schedules needed for Chapter 7, 9, 11, 12 and 13 filings. Provides students with practical experience using bankruptcy software. Examines the jurisdiction of the federal bankruptcy courts. Stresses the role of the paralegal in bankruptcy law.
Typically offered: Fall

LGS 222 - Intellectual Property (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides historical study of the development of intellectual property law in the United States. Emphasizes the role of the paralegal in preparing applications for patent, copyright, and trademark protections with federal and state governments. Provides an overview of the role of the paralegal in preparing for litigation involving intellectual property law issues. Reviews ethical issues that arise in the intellectual property arena.
Typically offered: Spring

LGS 224 - Commercial Real Estate Law (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Studies American commercial real estate law. Students will learn the anatomy of a commercial real estate transaction; the role of a paralegal in a commercial real estate transaction; the importance of title searches and surveys; and the role of leases, easements, and licenses. Students will also review the process utilized to obtain commercial real estate mortgages and the role of a paralegal in preparing for a commercial real estate closing. Emphasis is placed on the role of the paralegal in commercial real estate transactions. Ethical issues dealing with commercial real estate are also presented and discussed.
Typically offered: Fall

LGS 225 - Immigration Law (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Explores the immigration and naturalization process in the United States. Introduces visa categories and requirements, other paths to immigration, and immigration barriers. Teaches students about citizenship and the requirements for an immigrant to become a citizen. Examines the constitutional and international law foundations underlying immigration regulation, the history of immigration law in the U.S., the source and scope of congressional and executive branch power in the realm of immigration, and the role of the judiciary in making and interpreting immigration law. In the course of that exploration, citizenship and naturalization will be addressed, as well as the admission and removal of immigrants and nonimmigrants, and the issues of undocumented immigration and national security. Analyzes the impact of immigration in other areas, including employment, criminal law, family unification, international human rights law, and discrimination.
Typically offered: Spring

LGS 230 - Topics in Legal Studies (1-6 Credits)
1 - 6 lecture, 0 lab, 1 - 6 total contact hours
Studies selected problems or topics in legal studies. The exact content and instructional methodology will vary semester to semester depending on the material to be studied. A syllabus or course outline containing additional information will be available with pre-registration materials each time that the course is offered. This course may be repeated two times to a maximum of six credit hours.

Linguistics (LNG)

LNG 105 - Introduction to Language and Linguistics (3 Credits)
3 lecture, 3 total contact hours
Explores language - its origins, properties, use, structure, and meaning. Studies sound systems, word-information systems, syntatic systems, and derivations of meaning from spoken and written forms. Includes first and second language acquisition and properties of visual languages.
Typically offered: Fall, Spring

LNG 205 - Language and Culture (3 Credits)
3 lecture, 3 total contact hours
Explores the relationship between language and culture. Includes the language socialization of children, gender differences in language, standard varieties and dialects of language and the effect of language on thought. Examines the nature of language in power relationships. World Culture and Diversity
Typically offered: Spring

LNG 220 - Methods of Teaching English as a Second Language (3 Credits)
3 lecture, 3 total contact hours
Introduces the teaching of English to speakers of other languages. Intended for those who contemplate a career working with non-native speakers of English. Through a program of lectures, readings, discussions, observations and practical teaching exercises, students will explore the educational contexts in which English is taught and learned. In addition, the course will offer practical techniques for teaching and assessing the skill areas of listening and speaking, reading, writing and grammar. The foundation of the methods explored will be based on theories in applied linguistics.
Typically offered: Fall, Spring

LNG 225 - Language and Health (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides an introduction to the study and application of concepts and theories from Linguistics and Health Communication. Focuses on practical applications of effective communication strategies across diverse patient populations by discussing case studies from different healthcare settings, and by analyzing actual provider-patient interactions to understand how specific language choices contribute to constructing meaning in health communication. Includes a strong focus on patients' perspectives regarding language use and culture-specific characteristics surrounding illness and personal identity, patient advocacy, cooperation, and consent. (Also listed as HSC 225. Credit will be given for LNG 225 or HSC 225, but not both.)
Typically offered: Fall, Spring, Summer

LNG 230 - Second Language Assessment (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Explores concepts, issues, principles, and design of second language assessments. Includes formal and informal evaluation of reading, writing, speaking, and listening skills.
Typically offered: Spring

LNG 235 - Second Language Acquisition (SLA) (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Explores important theories in second language acquisition (SLA), especially as they relate to language teaching. Includes age, psychological factors, sociocultural factors, and linguistic factors. Examines the connections between theory and teaching practice in the language classroom. Prerequisite: LNG 105 or permission of instructor.
Typically offered: Fall

LNG 240 - Introduction to Pedagogical Grammar (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Explore theories in teaching grammar to second language learners. Teachers will study syntactic and discourse structures of English and common mistakes in those structures made by second language learners. Students will practice and create classroom materials designed to help English language learners in the oral and written communication. This course is an elective component for Illinois State Board of Education certification in Teaching English as a Second Language.
Typically offered: Fall, Spring

LNG 245 - Foundations of Bilingual Education (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Explores the historical, political, sociocultural and educational context that supports and constrains equitable educational opportunities for linguistically and culturally diverse students in US schools. The course considers policies on appropriate school services for English language learners. Issues surrounding bilingualism are considered through the educational and psycholinguistic lens as well as implications for language instruction.
Typically offered: Fall

LNG 250 - Bilingual Teaching Methods and Materials (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Offers practical techniques for teaching and assessing language skills in bilingual programs. Based on theories of first and second language acquisition, this course focuses on identifying, developing, and evaluating appropriate materials and strategies to create a supportive learning environment for culturally and linguistically diverse learners.
Typically offered: Fall

LNG 299 - Tesol Practicum (1 Credit)
0 lecture, 5 lab, 5 total contact hours
Provides students with TESOL (Teaching English to Speakers of Other Languages) classroom experience including critical observations of ESL classes and detailed activity planning/lesson development. In addition, scaffolded teaching experiences will offer students the opportunity to become familiar with the multiple steps of the language teaching process and the overall requirements of being a TESOL professional. Throughout the practicum, students will reflect on their own effectiveness as ESL teachers and present way to improve the quality of their instruction. NOTE: Students may not register for this course until all other coursework has been completed for the TESOL certificate.
Typically offered: Fall, Spring, Summer

Literature (LIT)

LIT 105 - Poetry (3 Credits)
3 lecture, 3 total contact hours
Facilitates the understanding, appreciation and enjoyment of poetry. Presents poetry of American, European and other literary philosophies and movements. Challenges students to develop skills in responding personally to poetry and in developing literary analyses. Reveals the link between the whole poem and particular literary qualities such as imagery, figurative language, allusion, connotation and the music of poetry¿sound and rhythm. Offers a forum for exchanging ideas about poetry in guided conversation and writing. IAI H3 903
Typically offered: Fall, Spring, Summer

LIT 112 - Literature and Film (3 Credits)
3 lecture, 3 total contact hours
Introduces methods of reading, interpreting and analyzing literary works as well as examining methods used in translating those works to the medium of film. Presents the short story, novel and the drama in conjunction with their cinematic counterparts. Relates the development of film to such schools as German expressionism, film verite, etc. Focuses on analysis of each form both on its own and in relation to the others through reading, viewing and writing. IAI HF 908
Typically offered: Fall, Spring, Summer

LIT 115 - Fiction (3 Credits)
3 lecture, 3 total contact hours
Presents short stories and novels of high interest level. The selections typify authors and styles representative of major American and European literary movements and philosophies. Challenges the student to develop skills in literary analysis. Students will study characterization, narration, dialogue, plot and various other techniques of fiction. Individual sections may concentrate on particular periods, authors or topics. IAI H3 901
Typically offered: Fall, Spring, Summer

LIT 208 - Non-Western Literature (3 Credits)
3 lecture, 3 total contact hours
Studies selected works from non-western civilizations, such as Africa, China, India, Japan and the Middle East. Fiction, poetry and drama will be included. IAI H3 908N
World Culture and Diversity
Typically offered: Fall, Spring, Summer

LIT 210 - Introduction to Shakespeare (3 Credits)
3 lecture, 3 total contact hours
Introduces Shakespeare¿s acting company, theater and audience. Discusses his techniques in building scenes, developing characters, handling dialogue. Readings and interpretations will consist of representative comedies, tragedies, histories and problem plays. IAI H3 905
Typically offered: Fall, Spring, Summer

LIT 216 - Science Fiction (3 Credits)
3 lecture, 3 total contact hours
Surveys science fiction short stories and novels. Considers science fiction as popular literature and assesses its unique contribution to the history of ideas.
Typically offered: Fall, Spring, Summer

LIT 217 - Crime Literature (3 Credits)
3 lecture, 3 total contact hours
Examines various subgenres of crime literature of various length either thematically or historically. Analyzes the literary predecessors of these works and crime literature¿s influence upon other genres of literature.
Typically offered: Fall, Spring, Summer

LIT 219 - Children's Literature (3 Credits)
3 lecture, 3 total contact hours
Introduces the various types of children's literature. Includes the history of children's literature, as well as the classic and current authors and illustrators. Covers such areas as picture and concept books, myths, poetry, fantasy and realism. IAI H3 918
Typically offered: Fall, Spring, Summer

LIT 220 - Japanese Literature in Translation (3 Credits)
3 lecture, 3 total contact hours
Surveys English-language translations of Japanese poetry, fiction, and non-fiction. Reviews Noh and Kabuki drama and selections from Japanese cinema. Works will be studied in the context of Japanese history, but each work will be studied also as athe product of its author¿s creative self-expression. No speaking or reading knowledge of Japanese is required; no background knowledge of Japan is required. IAI H3 909 World Culture and Diversity
Typically offered: Fall, Spring, Summer

LIT 221 - American Literature, Colonial Days to Civil War (3 Credits)
3 lecture, 3 total contact hours
Presents American literature as an expression of American life through early social and political documents, novels, short stories and poems. IAI H3 914
Typically offered: Fall, Spring, Summer

LIT 222 - American Literature: Civil War to Present (3 Credits)
3 lecture, 3 total contact hours
Explores American prose, drama and poetry, Civil War to present, including minority literature, regional literature, literary journalism, criticism, and social and historical novels in their historical, social and cultural context to reflect current controversies and social changes. IAI H3 915
Typically offered: Fall, Spring, Summer

LIT 223 - Multicultural American Literature (3 Credits)
3 lecture, 3 total contact hours
Investigates what it means to be a minority in the United States. Examines the ways in which minority writers, through fiction, nonfiction, poetry and drama, question the quality of American life and the authenticity of American democracy, thus helping students appreciate more fully the range of American cultures and subcultures. May include such writers as Olaudah Equiano, Frederick Douglass, Amiri Baraka, Rudolfo Anaya, Leslie Marmom Silko, Toni Morrison, Rita Dove, Leslea Newman, Li-Young Lee, Vassar Miller, Vivienne Finch. IAI H3 910D World Culture and Diversity
Typically offered: Fall, Spring, Summer

LIT 224 - Women in Literature (3 Credits)
3 lecture, 3 total contact hours
Examines the evolving portrayal of women¿the many images, impressions and stereotypes¿in literature. Includes literature written about women by women. Selections reflect a diversity of cultures, eras, authors and genres. The student will read selections from such authors as Bronte, Chekhov, Chopin, Hardy, Morrison and Woolf. IAI H3 911D World Culture and Diversity
Typically offered: Fall, Spring, Summer

LIT 231 - English Literature to 1800 (3 Credits)
3 lecture, 3 total contact hours
Surveys English writers from beginning English literature to 1800. Reading and interpretation of writers such as Boswell, Chaucer, Congreve, Donne, Dryden, Johnson, Jonson, Malory, Milton, Pope and Swift. IAI H3 912
Typically offered: Fall, Spring, Summer

LIT 232 - English Literature 1800-1914 (3 Credits)
3 lecture, 3 total contact hours
Surveys English writers from Romantic Period to World War I. Reading and interpretation of such writers as Austen, Browning, Byron, Conrad, Dickens, Hardy, Keats, Shaw, Tennyson and Wordsworth. IAI H3 913
Typically offered: Fall, Spring, Summer

LIT 241 - 20th Century British and American Literature (3 Credits)
3 lecture, 3 total contact hours
Surveys important writers and writings in British and American literature since World War I.
Typically offered: Fall, Spring, Summer

LIT 250 - Topics in Literature (1-3 Credits)
1 - 3 lecture, 1 - 3 total contact hours
Examines selected eras or topics in the various fields of literature and literary theory. The exact content and instructional methodology will vary from semester to semester depending on the material to be studied. A topic-specific syllabus containing additional infomration will be available in the Liberal Arts Division Office with other pre-registration materials each time the course is offered. This course may be repeated to a maximum of 12 credit hours.
Typically offered: Fall, Spring, Summer

Maintenance (MNT)

MNT 135 - Plumbing Systems Maintenance (3 Credits)
2 lecture, 3 lab, 5 total contact hours
Covers maintaining plumbing systems in a factory, plant or other industrial or commercial site. Describes the structure and function of on-site plumbing systems (water supply, sanitary waste, and storm water) and explains how the major fixtures in these systems work. Covers troubleshooting of common plumbing problems.
Typically offered: Fall

MNT 228 - Small Equipment Maintenance (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Trains students in small engine and equipment repair. Students will demonstrate the ability to repair small engines such as those found in lawn, garden and construction equipment. Emphasis is placed on overhaul, repair, adjustment and troubleshooting.
Typically offered: Spring

MNT 235 - Maintenance Troubleshooting Skills (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Covers methods of system analysis using schematics, circuit diagrams and installation drawings. Develops troubleshooting diagnostics for control, electrical and mechanical systems based on problem reduction through fault tree analysis.
Typically offered: Fall

MNT 255 - Belts/Bearings and Mechanical Drives (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Covers a practical knowledge of machine elements and power transmission with emphasis on belts, bearings and mechanical drive systems. Provides knowledge in system maintenance, lubrication and power efficiencies.
Typically offered: Summer

MNT 281 - Topics in Maintenance Technology (1-6 Credits)
1 - 6 lecture, 0 - 3 lab, 1 - 9 total contact hours
Examines selected problems or topics in Maintenance Technology. The specific course content and instructional methodology will vary each semester offered depending on the material presented. A syllabus containing specific topic information will be available in the division office with pre-preregistration materials each time the course is offered. This course may be repeated to a maximum of 6 credit hours.

Management (MGT)

MGT 111 - Introduction to Business Organization (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Introduces the nature of business and the environment in which it operates. Forms of business ownership, introduction to operative and facilitating facets of business operation, management, marketing, accounting, statistics, business law, finance, investments, insurance and labor-management relations.
Start Smart
Typically offered: Fall, Spring, Summer

MGT 150 - Business Math (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Introduces arithmetic as a tool of business. Topics include fractions, decimals and percentages, computations of interest, bank discounts, depreciation, commissions, compound interest, payrolls and taxes and graph and chart design.
Typically offered: Fall, Spring, Summer

MGT 154 - Entrepreneurship (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Investigates positives and negatives of entrepreneurship and the process of concept to new venture. Analyzes typical venture errors and focuses on strategic management. Evaluates business ownership and franchising, pricing strategies, financing, location selection and human capital management. Discovers personal leadership traits. Assesses the personal entrepreneurial mindset.
Typically offered: Fall, Spring

MGT 165 - Global Business (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides concepts, principles and practices of the international business environment. Includes the nature of international business; international organizations and monetary systems; comparative management techniques and environmental business factors. Focuses on international organizational functioning to help the student gain a diversity of views. Prerequisite: MGT 111 or MGT 154 with a grade of C or better.
World Culture and Diversity
Typically offered: Fall, Spring, Summer

MGT 204 - Training and Development (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Introduces the student to the principles of training practices with emphasis on the concerns of human learning: acquisition, retention and transfer of skills. Includes supervisory and management skills, designing performance goals, MBO (Management by Objectives) forming lesson plans, mechanics of training, experiential instruction, role playing, case studies and technologies available.
Typically offered: Fall, Spring, Summer

MGT 205 - Leadership (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Investigates leadership styles and the influences of leadership styles within organizations from start-ups to global corporations. Explores the empirical science and evidence of leadership styles, motivation, communication, conflict resolution, negotiations, creativity and innovation. Examines leadership styles as they relate to culture, diversity and globalization. Evaluates the performance of successful leaders.
Typically offered: Fall, Spring, Summer

MGT 211 - Management Internship (1-3 Credits)
0 lecture, 5 - 15 lab, 0 clinical/other, 5 - 30 total contact hours
Provides cooperative work experience working in a small business. Credit is given for participation in a supervised work experience. The work must take place in a College-approved workstation. This course is repeatable twice for a total of three credit hours.
Typically offered: Fall, Spring, Summer

MGT 218 - Introduction to Finance (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Introduces fundamental principles of finance and fiscal management. Students will review financial theories and examine cash-flow projections, asset valuation, capital expenditure and investment opportunities, financial planning and decision-making processes, and the structure of business markets. Prerequisite: ACC 101 and either MGT 111 or MGT 154.
Typically offered: Fall, Spring, Summer

MGT 265 - Human Resources Management (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Examines the various aspects of the field of Human Resource Management (HRM) and the manner in which HRM professionals play a critical role in the success of an organization. Discusses and evaluates a wide range of contemporary HRM topics including human resource planning, employee recruitment and retention, employee benefits, talent development, performance management, laws and regulations, technology, changing workforce demographics, and the value of diversity. Prerequisite: MGT 111 or MGT 154 with a grade of C or better.
Typically offered: Fall, Spring, Summer

MGT 266 - Employee Compensation and Benefits (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides practical knowledge of the design and implementation of effective compensation programs which include pay and benefits. Examines base pay systems, individual and group bonuses, executive compensation, issues with providing health care, long-term investment options, pension systems, discretionary and required benefits; and current issues, trends and practices in compensation and benefits. Prerequisite: MGT 265 with a grade of C or better.
Typically offered: Fall, Spring, Summer

MGT 270 - Principles of Management (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Presents the theory and major functions of management and describes the role of the manager. Major concepts in organization are developed along with an understanding of the decision-making process and consideration of the human factor in management. Prerequisite: MGT 111 or MGT 154 with a grade of C or better.
Typically offered: Fall, Spring, Summer

MGT 280 - Organizational Behavior (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Emphasizes a managerial and interpersonal relations process approach to problem solving, communication and group dynamics. Specific treatment is given to managing change, appraisal and reward, solving communication problems, status needs of the work force, understanding individuals, group dynamics and reducing conflict. Prerequisite: MGT 111 or MGT 154 with a grade of C or better.
Typically offered: Fall, Spring, Summer

MGT 291 - Strategic Management (3 Credits)
3 lecture, 3 total contact hours
Provides the student with a logical integration of management principles with representative supervisory problems found in business firms. Emphasizes decision-making through case problems, simulation and directed reading. Prerequisite: MGT 111, MGT 270 and 3 credit hours in MGT or MKT coursework with grades of D or better, or consent or program coordinator.
Typically offered: Fall, Spring, Summer

Manufacturing Technology (MFT)

MFT 102 - Introduction to Manufacturing and Safety (4 Credits)
3 lecture, 2 lab, 5 total contact hours
Provides the student with an introduction to the manufacturing world and provides specific instruction to facilitate safe work practices in industrial environments. Introduces manufacturing specializations such as mechatronics, precision machining and welding. Covers fire safety, pressurized gases, electrical hazards, and safe machine usage. Students will also become acquainted with OSHA policy. Students will have the opportunity to earn the Safety Certification through Manufacturing Skill Standards Council (MSSC).
Typically offered: Fall, Spring, Summer

MFT 104 - Quality and Measurement (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Provides an introduction to controlling and improving quality in a manufacturing setting. Explores ways that manufacturers use data and analysis to improve quality. Students will have the opportunity to earn the Quality and Measurement Certification through the Manufacturing Skill Standards Council (MSSC). Prerequisite: Prior or concurrent enrollment in MFT 102 with a grade of C or better.
Typically offered: Fall

MFT 105 - Machining Processes I (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Covers fundamentals of machine shop theory and safe practices. Provides familiarization with tools, equipment, and practices of the precision metal working industry. Includes introduction to mills, drill press, and lathes. Students are provided classroom and laboratory learning experiences. Students may earn NIMS credentials.
Typically offered: Fall, Spring

MFT 108 - Manufacturing Processes (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides the basics of how manufacturing transforms materials into products. Students will learn about the varying types of production and will learn about the materials that are used in production. They will become familiar with the types of processes used in manufacturing including machining, casting and assembly. Prerequisite: MFT 102 with a grade of C or better.
Typically offered: Spring

MFT 109 - Introduction to Manufacturing Maintenance (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Provides a basic understanding of tools and equipment used in manufacturing and knowledge of how to improve productivity through predictive and preventive maintenance.
Typically offered: Spring

MFT 119 - Manufacturing Internship (2 Credits)
1 lecture, 10 lab, 11 total contact hours
Applies and expands manufacturing skills and knowledge in the workplace environment. Students will have an on-site supervisor who will assign duties in the workplace. Regularly scheduled face-to-face on-campus sessions will be conducted to assess the student's progress, problem areas, and to review appropriateness of work involvement. Actual permissible duties and activities will be determined based upon the student's knowledge and skill. Student must complete a minimum of 100 hours at the work site. Prerequisite: MFT102, MFT104, MFT108 and MFT109 with grades of C or better.
Typically offered: Fall, Spring, Summer

MFT 120 - Machining Processes II (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Covers machine shop theory with emphasis on safe practices and applications. Includes lathes, surface grinders, and milling machines. Projects in this class will be machined using high speed (HSS) tools. Students are responsible for calculating all feeds and speeds. Students may earn NIMS credentials. NOTE: The prerequisite will be waived for Fall 2020. Prerequisite: MFT 105 with a grade of C or better.
Typically offered: Fall, Spring

MFT 121 - Machining Processes III (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Covers advanced machine shop theory and applications. Includes lathes, surface grinders, and milling machines. Studies production machining, feed and speed applications, and quality control techniques applied to precision machining. Introduces modern indexable tooling. Students may earn NIMS credentials. NOTE: The prerequisite will be waived for Fall 2020. Prerequisite: MFT 120 with a grade of C or better.
Typically offered: Spring

MFT 123 - Introduction to CNC Machining (4 Credits)
3 lecture, 3 lab, 6 total contact hours
Introduces setup and operation of CNC (Computer Numerical Control) machining and turning centers. Teaches CNC machine tool controls through laboratory experiences and the manufacture of preprogrammed parts including part holding techniques, alignment, process planning, tooling for CNC machine tools and inspection of machined products. Students may earn NIMS credentials.
Typically offered: Fall, Spring

MFT 125 - CNC Lathe Operation and Programming (4 Credits)
2 lecture, 4 lab, 6 total contact hours
Covers the principles and operation of conventional and CNC (Computer Numerical Control) machine tools with an emphasis on the set up and operation of lathes. Includes safety, turning, grooving, drilling, boring, threading, cutting tools, and introduction to CNC programming on common industry controls. Students may earn NIMS credentials. NOTE: The prerequisite will be waived for Fall 2020. Prerequisite: MFT 123 with a grade of C or better.
Typically offered: Fall, Spring

MFT 128 - CNC Mill Operation and Programming (4 Credits)
2 lecture, 4 lab, 6 total contact hours
Covers the principles and operation of conventional and CNC (Computer Numerical Control) machine tools with an emphasis on the set up and operation of vertical and horizontal mills. Includes safety, turning, drilling, boring, threading, cutting tools, to CNC programming, practices and setups on common industry controls. Students may earn NIMS credentials. Prerequisite: MFT 123 with a grade of C or better.
Typically offered: Fall, Spring

MFT 132 - Dimensional Metrology (3 Credits)
3 lecture, 1 lab, 4 total contact hours
Develops dimensional measurement ability for skilled workers, inspectors, technicians, and for personnel entering a technical occupation. Measuring equipment and instruments used include: scales, micrometers, calipers, gage blocks, indicators and productions gages. Basic statistics, probability, and acceptance sampling are also covered.

MFT 134 - Print Reading for Industry (3 Credits)
3 lecture, 1 lab, 4 total contact hours
Provides students in the machine trades the basic skills required for visualizing and interpreting industrial prints. Emphasizes orthographic projection techniques of top, front, side, and section views, tolerancing, geometric dimensioning and the impact of computer drafting as related to the machine trades.
Typically offered: Fall, Spring, Summer

MFT 140 - Quality Assurance (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Provides the student with the knowledge necessary for different types of part inspections. Utilizes the Coordinate Measuring Machine (CMM), surface plate, height gages, optical comparator and other quality inspection equipment to set up and lay out parts for the final inspection process. Compares all measurements and layouts to precision part blueprints. Prerequisite: MFT 132 with a grade of C or better.

MFT 210 - Computer Integrated Manufacturing (3 Credits)
2 lecture, 3 lab, 5 total contact hours
Covers concepts of solid modeling techniques for product design and manufacturing in this introductory course. Provides students with a thorough understanding of the integration of computers and Computer Aided Drafting (CAD) software used in the industry and precision machining. Teaches how to create, modify, and manipulate part geometry. Students will create a CAD drawing of a part for precision machining.
Typically offered: Summer

MFT 220 - Computer Aided Manufacturing (3 Credits)
2 lecture, 3 lab, 5 total contact hours
Demonstrates the integration of Computer-Aided Design (CAD) and Computer Aided Manufacturing in this introductory course. Provides students with knowledge of programming processes using Computer-Aided Manufacturing (CAM) software combined with Computer-Aided Drafting (CAD) software used in precision machining to generate G-code for a Computer Numerical Control (CNC) program. Students will perform tooling selection, create and simulate CNC machining toolpaths, and generate CNC code to machine an actual part.
Typically offered: Summer

MFT 230 - Additive Manufacturing (3 Credits)
2 lecture, 3 lab, 5 total contact hours
Provides an introduction to the additive manufacturing processes and the materials used. Presents the history of additive manufacturing (commonly known as 3D printing), the role of the part designer, the principles of design thinking, the role of CAD software, advantages and disadvantages of additive manufacturing, comparison of additive manufacturing to traditional technologies, and the difference between various 3D printing technologies and materials. Prerequisite: EGR 120 or MFT 210 with a grade of C or better.

Marketing (MKT)

MKT 105 - Sports Marketing (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Focuses on the strategic marketing process as it is applied to the sports industry. Topics to be investigated include sponsorships, understanding spectators as consumers, and the application of the marketing mix in a sports environment.
Typically offered: Spring

MKT 106 - Retail Merchandising (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Focuses upon the merchandising activities related to hardlines, apparel and other softline merchandise. Examines the role and qualifications of the buyer and the influence of consumer preference. Includes budgeting by dollars and assortment, pricing strategy, managing assortments, the selection and promotion of merchandise, and the coordinator of merchandising functions and processes.
Typically offered: Spring

MKT 140 - Principles of Professional Selling (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Focuses upon the principal factors of successful selling of goods or ideas. Examines buying motives, sales psychology, customer approach and sales techniques.
Typically offered: Fall, Spring, Summer

MKT 146 - Customer Service Skills for Success (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Master verbal, non-verbal, and listening techniques crucial in the customer service profession. Cultivate the ability to build and maintain relationships, navigating through diverse customer behaviors and addressing service breakdowns with adept recovery strategies. Explore the intersection of technology and customer service to stay ahead in a dynamic landscape. Develop strategies for retaining customers, focusing on encouraging loyalty through personalized approaches. Delve into special topics like time and stress management, while also enhancing customer service through written communication. Empowers students with the knowledge and skills needed for a successful and fulfilling career in customer success.
Typically offered: Fall, Spring, Summer

MKT 147 - Salesforce: Customer Relationship Management (3 Credits)
3 lecture, 3 total contact hours
Delve into the intricacies of Salesforce, a cutting-edge Customer Relationship Management (CRM) software, by leveraging the Trailblazer platform. Navigate seamlessly through customer service, sales, and marketing Salesforce content and training to cultivate advanced skills essential for diverse career paths. Engage in hands-on Salesforce assignments, applying theoretical knowledge to real-world scenarios and perfecting your expertise. Earn prestigious badges from Salesforce, validating your mastery and symbolizing advanced training in the CRM tool. Emerge well-equipped for dynamic roles in customer relationship management, empowered by the experiential learning provided throughout the course.
Typically offered: Fall, Spring, Summer

MKT 180 - Strategic Communication for a Digital World (3 Credits)
3 lecture, 3 total contact hours
Introduces the fundamental skills needed to develop Web-appropriate written content that can be leveraged for strategic marketing purposes on multiple digital platforms. Evaluates platform requirements and explains the nuances of multimedia writing. Presents techniques to identify success metrics, assess and report content performance and make data-driven recommendations. Recommended preparation: ENG 101 or placement equivalency. Click here for English placement information: https://www.harpercollege.edu/testing/english-placement-grid.php
Typically offered: Fall, Spring, Summer

MKT 217 - Advertising (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Purposes of advertising, how advertisements are prepared and delivered in media, and how effectiveness of advertising is measured and evaluated in relation to the selling and marketing process. IAI MC 912
Typically offered: Summer

MKT 243 - Social Commerce and Sales (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides an introduction to social commerce and how to use the major social platforms on a smartphone to market and increase sales. Reviews sales initiatives including programs and alerts to increase sales with targeted customers. Explains the importance of using reward programs in social commerce to increase sales, referrals and customer loyalty.
Typically offered: Fall, Spring, Summer

MKT 245 - Principles of Marketing (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Focuses on marketing activities that will cover product planning, pricing strategies and promotional efforts including advertising, selling and sales promotions and distribution channel effectiveness.
Typically offered: Fall, Spring, Summer

MKT 247 - Consumer Buying Behavior (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Reviews and analyzes areas of consumer and organizational buying behavior that guide marketing management decisions. The focus of this course will be directed toward the application of concepts on buying behavior to specific functional areas of marketing management in both the industrial and consumer markets.
Typically offered: Summer

MKT 252 - Internet Marketing (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Presents techniques on how to design, maintain, and market effective digital storefronts. Focuses on communicating, selling and providing content to Web-based stores and other Internet businesses.
Typically offered: Fall, Spring, Summer

MKT 253 - Artificial Intelligence Marketing (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Uncovers the foundational principles and advanced applications of AI, gaining proficiency in leveraging cutting-edge technologies to revolutionize marketing practices. Analyzes and deciphers the intricacies of AI-driven consumer behavior analysis, market segmentation, and campaign optimization. Explores ethical considerations inherent in deploying AI for targeted marketing initiatives, fostering a nuanced understanding of responsible AI usage. Engage in hands-on exercises, utilizing machine learning algorithms to craft innovative solutions for contemporary marketing challenges. This course cultivates a comprehensive skill set, empowering professionals to navigate and excel in the evolving landscape of AI-infused marketing strategies.
Typically offered: Fall, Spring, Summer

MKT 281 - Internship in Marketing (1-3 Credits)
0 lecture, 5 - 15 lab, 0 clinical/other, 5 - 15 total contact hours
Provides work experience in a social media field. Credit is given for participation in a supervised work experience wherein an organized training plan will be followed at a College-approved training station. This course is repeatable twice for a total of three credit hours.
Typically offered: Fall, Spring, Summer

MKT 285 - Topics in Marketing (0.5-3 Credits)
.5 - 3 lecture, .5 - 3 total contact hours
Studies selected problems or topics in marketing. The exact content and instructional methodology will vary semester to semester depending on the material to be studied. A syllabus or course outline containing additional information will be available with pre-registration materials each time that the course is offered. This course may be repeated two times to a maximum of three credit hours.
Typically offered: Fall, Spring, Summer

Massage Therapy (MTP)

MTP 110 - Massage Practice Fundamentals (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Covers the requirements for the practice of therapeutic massage including sanitary and safety issues. Discusses the effects of stress on the body and the importance of self-care. Introduces the benefits of breathwork, meditation and mindful movements. Prerequisite: You must be 18 years of age or older and complete the program orientation to register for this course.
Typically offered: Fall, Spring

MTP 112 - Massage Therapy: Structure and Function I (2 Credits)
2 lecture, 2 total contact hours
Begins an overview of the structure and function of integumentary, fascial, skeletal, muscular and nervous systems. Examines the indications for and benefits of massage therapy on these systems. Discusses the different types of massage modalities and manual therapies appropriate for each body system covered. Includes medical terminology for professional record keeping. Prerequisite: Must be 18 years of age or older and complete the program orientation to register for this course.
Typically offered: Fall, Spring

MTP 115 - Foundations of Massage Therapy I (3 Credits)
.5 lecture, 5 lab, 5.5 total contact hours
Covers effects, indications, contraindications, proper body mechanics, professional draping and the practice of massage within a wellness model. Covers a general sequence for a full body relaxation/wellness massage in the context of an hour-long appointment. Prerequisite: Must be 18 years of age or older and complete the program orientation to register for this course.
Typically offered: Fall, Spring

MTP 118 - Hydrotherapy and Introduction to Clinic (1.5 Credits)
.5 lecture, 2 lab, 2.5 total contact hours
Covers the stages of injury and inflammation from acute, early to late subacute, and chronic. Discusses effects, indications and contraindications of massage therapy techniques on compromised tissue. Discusses different hydrotherapy techniques, effects, indications, contraindications, and sanitation. Introduces assessment procedures including intake and documentation. Ethics, standards of practice, and professional decision-making processes are discussed. Includes theory and practice of clinic treatments and procedures. Prerequisite: Must be 18 years of age or older and complete the program orientation to register for this course.
Typically offered: Fall, Summer

MTP 122 - Massage Therapy: Structure and Function II (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Covers the structure, function, and dysfunction of the following systems: cardiovascular and blood, lymphatic and immune, endocrine, respiratory, digestive, urinary and reproductive. Examines the indications and contraindications for massage therapy on these systems. Includes further examination of scientific research and critical thinking around common pathologies in the context of a massage therapist's scope of practice and medical terminology for professional communications. Prerequisite: MTP 112 with a grade of C or better.
Typically offered: Fall, Spring

MTP 123 - Integrative Palpation I (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Examines musculoskeletal system and kinesiology more specifically in this hands-on class for massage practitioners. Focuses on bony landmarks, muscle location and function of the regions: shoulder, upper arm, torso, spine, abdomen, pelvis and thigh. Regional treatments incorporating specific anatomy are introduced. Prerequisite: Must be 18 years of age or older and complete the program orientation to register for this course.
Typically offered: Fall, Summer

MTP 125 - Foundations of Massage Therapy II (2.5 Credits)
.5 lecture, 4 lab, 4.5 total contact hours
Provides in-depth adaptation of MTP 115 (Foundations of Massage Therapy I) techniques along with body mechanic theory to apply more specific treatments. Integrates anatomy palpation with specific clinical treatments. Introduces specific tissue (deep tissue) treatment, trigger point therapy approaches, specific myofascial therapies and cross-fiber friction. Prerequisite: MTP 115 with a grade of C or better.
Typically offered: Fall, Spring

MTP 128 - Massage Therapy Clinical I (1 Credit)
0 lecture, 3 lab, 3 total contact hours
Provides the students with the opportunity to perform massage therapy in a clinical setting under the supervision of licensed massage therapists. Allows the student opportunities to perform management tasks associated with clinic operation such as booking appointments, taking payments and filing clinic charts. Students complete 48 clinical hours in the on-site clinic. Prerequisite: MTP 115 and MTP 118 with grades of C or better.
Typically offered: Fall, Spring

MTP 133 - Integrative Palpation II (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Continues examination of musculoskeletal system and kinesiology more specifically in this advanced hands-on class for massage practitioners. Focuses on bony landmarks, muscle location and function of the regions: head, neck, face, forearm, hand, lower leg, foot. Regional treatments incorporating specific anatomy are introduced. Prerequisite: MTP 123 with a grade of C or better.
Typically offered: Fall, Spring

MTP 135 - Foundations of Massage Therapy III (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Introduces clinical massage theory and applications for specific conditions and special populations. Assessment procedures, advanced modalities and plans of care appropriate for specific conditions are discussed. Prerequisite: MTP 125 with a grade of C or better.
Typically offered: Spring, Summer

MTP 136 - Advanced Treatment Planning and Applied Therapies (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Covers the laws of movement and contraction principles as related to massage therapy. Students will learn posture and range of motion assessment within the massage therapy scope of practice and develop strategies for synthesizing massage therapy treatment plans. Applies neuromuscular therapies to facilitate change for musculoskeletal and movement related conditions. Prerequisite: MTP 122, and MTP 133 with grades of C or better.
Typically offered: Spring, Summer

MTP 137 - Massage Practice Development (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Discusses career options, marketing strategies and resume development for an entry-level massage therapist. Legal aspects of massage practice, business practices including referrals, and basic tax requirements are covered. Licensing exam review and practice tests are implemented with test-taking strategies discussed. Continuing education and specialties for massage therapists are discussed. Prerequisite: MTP 128 with a grade of C or better.
Typically offered: Spring, Summer

MTP 138 - Massage Therapy Clinical II (1 Credit)
0 lecture, 3 lab, 3 total contact hours
Allows students to continue practice of massage therapy techniques in a clinical setting under the supervision of licensed massage therapists faculty. Includes completing sessions of different lengths of time and focused treatments, as well as participation in community massage events. Students complete 48 clinical hours in the on-site clinic. Prerequisite: MTP 128 with a grade of C or better.
Typically offered: Spring, Summer

Mass Communication/Comm Arts (MCM)

MCM 120 - Introduction to Mass Communication (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Examines the history, technical development and cultural impact of the media, including books, newspapers, magazines, radio, sound recording, movies, television and the Internet; as well as related areas of public relations and advertising. Focuses on media convergence, trends and issues. Analyzes the impact and effects of media on our consumer culture and democratic system. Encourages critical evaluation of the media. IAI MC 911
Typically offered: Fall, Spring, Summer

MCM 130 - Introduction to Journalism (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Introduces the basics of writing for the media and Associated Press (AP) style, focusing on print journalism. Explores the history, legal and ethical concerns, and culture of journalism. Develops fundamental skills in writing, interviewing and conducting research using traditional and Internet sources. Emphasizes accuracy, conciseness, grammar and spelling skills. Explores career opportunities in journalism. Some beginning reporting and writing in computer lab. IAI MC 919
Typically offered: Fall, Spring

MCM 150 - Social Media Management and Measurement (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Focuses on creating, maintaining, measuring and improving social media networks for a variety of industries. Students engage in data-driven decision making to alter or improve social media channels.
Typically offered: Fall, Spring, Summer

MCM 156 - Audio Production I (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Introduces students to the equipment, facilities and terminology of the audio media industry. Students will work on individual field and studio projects including radio show production, public service announcements, audio documentaries and sound design. Students will be introduced to the technical aspects of sound recording and non-linear, multi-track audio editing. IAI MC 915
Typically offered: Spring

MCM 157 - Podcast Production (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Introduces the recording, editing, and distribution technology required to produce a podcast. Includes terminology, basic script writing, editing, producing long and short form audio projects in a studio and field setting. Students will use audio to produce creative, informative, and entertaining podcasts that can be distributed globally.
Typically offered: Spring

MCM 180 - Applied Mass Communication/Radio Practicum (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Provides practical experience in media production, post-production, media management, and radio station operation. This is a project-based course where students build skill sets over time from beginner, intermediate, advanced and expert, and therefore is repeatable three times, up to a maximum of four (4) credits.
Typically offered: Fall, Spring, Summer

MCM 200 - Film History (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Surveys the historical development of film emphasizing a study of films and innovations in film production that have had a significant influence on film as an art form. Explores the history of film through the eyes of the filmmaker. Students will analyze film movements from multilple countries and recognize their effect on each other and the Hollywood film model. IAI F2 909
World Culture and Diversity
Typically offered: Fall, Spring, Summer

MCM 205 - Multi-Platform Photojournalism (3 Credits)
3 lecture, 3 total contact hours
Introduces students to the principles and techniques of photojournalism for use in a variety of platforms including print, broadcast, web and social media. Students will use still photography and mobile video production techniques to create products for web journalism, public relations and marketing. IAI MC 921
Typically offered: Spring

MCM 210 - Video Editing and Video Post-Production (3 Credits)
3 lecture, 3 total contact hours
Focuses on using non-linear editing software to combine visuals and sound for a variety of genres and media types including cinematic storytelling, documentaries, news, and web series. Includes editing theory and techniques; film history; and post-production workflow including ingesting media, editing, sound mixing, color correction, and final delivery.
Typically offered: Fall, Spring

MCM 211 - Video Production (3 Credits)
3 lecture, 3 total contact hours
Introduces students to the application of fundamental non-studio video production techniques. Includes terminology, conceptualization, basic script writing, field audio operations and lighting in a non-studio setting. IAI MC 916-B
Typically offered: Fall, Spring

MCM 212 - Multi-Camera Production (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Introduces students to the application of fundamental multi-camera production techniques. Includes terminology, conceptualization, basic script writing, audio board operations, editing, shooting and lighting in multi-camera settings including live events, social media streaming and video conferencing. IAI MC 916A
Typically offered: Fall, Spring

MCM 218 - Broadcast Graphics (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Introduces the concepts, techniques, and vocabulary of motion graphics and compositing for motion picture, television broadcast, streaming, and other media outlets. Students will create, select, and manipulate video, photos, text, and vector assets within layered sequences for effective media communication. (pending IAI MC 924)
Typically offered: Fall, Spring

MCM 233 - Introduction to Public Relations (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Explores the history, theory, practice and role of public relations in government, corporate, non-profit and private organizations. Introduces students to the business and creative aspects of publics relations, as well as the complexities of issue management. Students will prepare original public relations campaigns for print, broadcast and electronic media. Familiarizes the student with computer software for desktop publishing. IAI MC 913 Recommended Prerequisite: MCM 230 with a grade of C or better, or computer design experience.
Typically offered: Fall, Spring, Summer

MCM 240 - Topics In Mass Communication (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Studies selected problems or topics in mass communication. The exact content and instructional methodology will vary semester to semester depending on the material to be studied. A syllabus or course outline containing additional information with pre-registration materials will be available each time the course is offered. This course may be repeated up to a maximum of six credit hours.
Typically offered: Fall, Spring, Summer

MCM 275 - Mass Communication Internship (1-3 Credits)
0 lecture, 5 - 15 lab, 5 - 15 total contact hours
Provides work experience in the various mass communication fields. Credit is given for participation in a supervised work experience wherein an organized training plan will be followed.
Typically offered: Fall, Spring, Summer

Mathematics (MTH)

MTH 041 - Enhanced Supplemental Math for Quantitative Literacy (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Provides mathematical support for students in MTH 101 who place below the Intermediate Algebra level. Carries no transfer credit. Prerequisite: ENG 094, ENG 096 or higher, or equivalent English placement. https://www.harpercollege.edu/testing/english-placement-grid.php Corequisite: MTH 101.
Typically offered: Fall, Spring

MTH 065 - Algebraic Modeling (4 Credits)
4 lecture, 0 lab, 4 total contact hours
Develops conceptual understanding of number systems, algebraic expressions, equations, inequalities and graphs of equations. Develops algebra skills with an emphasis on data modeling throughout the course. Carries no transfer credit. Prerequisite: MTH 055 with a grade of C or better or P, ALEKS score of 14-29 ,or other placement options. Click here for Math placement information: https://www.harpercollege.edu/testing/mathplacement.php
Typically offered: Fall, Spring, Summer

MTH 070 - Plane Geometry (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Introduces concepts of Euclidean plane geometry, including lines, angles, polygons and circles. Carries no transfer credit. Prerequisite: Prior or concurrent enrollment in MTH 065 (Algebraic Modeling) with a grade of C or better, or other placement options. Click here for Math placement information: https://www.harpercollege.edu/testing/mathplacement.php
Typically offered: Fall, Spring, Summer

MTH 081 - Supplemental Math/Quantitive Literacy (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Provides mathematical support for students in MTH 101 who place at the intermediate algebra level. Carries no transfer credit. Prerequisite: MTH 065 (Algebraic Modeling) with a grade of C or better, or other placement options. https://www.harpercollege.edu/testing/mathplacement.php Corequisite: MTH 101.
Typically offered: Fall, Spring

MTH 083 - Supplemental Math/College Algebra (2 Credits)
2 lecture, 2 total contact hours
Provides mathematical support for students in MTH 103 (College Algebra) who place at the upper MTH 080 (Intermediate Algebra) level. Carries no transfer credit. Prerequisite: MTH 065 (Algebraic Modeling) with a grade of B or better or other placement options. Click here for Math placement information: https://www.harpercollege.edu/testing/mathplacement.php
Typically offered: Fall, Spring

MTH 085 - Supplemental Math/Elementary Statistics (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Provides mathematical support for students in MTH 165 who place at the intermediate algebra level. Prerequisite: MTH 065 (Algebraic Modeling) with a grade of C or better, or other placement options. Corequisite: MTH 165. Click here for Math placement information: https://www.harpercollege.edu/testing/mathplacement.php
Typically offered: Fall, Spring

MTH 100 - Applied Math for Technical Careers (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Reviews arithmetic, introduces basic algebraic and right triangle trigonometric techniques. Includes arithmetic, elementary algebra, geometry, ratio and proportions, measurements, right triangle trigonometry and their application to solve a variety of career and technical problems. Draws practical problems from the student's career area, including emergency services, graphic communications, building trades, culinary arts and information technology. Intended for students pursuing Harper degrees and certificates in career program fields. This mathematics course is intended for AAS degree students only.

MTH 101 - Quantitative Literacy (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Develops conceptual understanding, problem-solving, decision-making and analytic skills dealing with quantities and their magnitudes and interrelationships, using calculators and personal computers as tools. Includes: computing statistical measures such as central tendency and dispersion; computing correlation coefficients and regression equations; using normal distributions to test hypotheses; using logical statements and arguments in a real-world context, solving systems of equations and inequalities and modeling data; and selecting and using appropriate approaches and tools in formulating and solving real-world problems. IAI M1 901 Prerequisite: Placement into college-level mathematics. https://www.harpercollege.edu/testing/mathplacement.php
Typically offered: Fall, Spring, Summer

MTH 103 - College Algebra (3 Credits)
3 lecture, 1 lab, 4 total contact hours
Emphasizes algebraic and graphical approaches to college algebra. Topics include but are not limited to: polynomial, rational, exponential, and logarithmic functions; systems of equations and inequalities; matrices; mathematical modeling. NOTE: This course does not fulfill the math requirement for the AA or AS degrees. MTH 070 (Plane Geometry) with a grade of C or better or Geometry Waiver AND placement into college level mathematics. https://www.harpercollege.edu/testing/mathplacement.php
Typically offered: Fall, Spring, Summer

MTH 124 - Finite Mathematics (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Develops the mathematics of simple models in behavioral, social and management sciences. Studies applications of set theory, vectors and matrices, linear programming, probability rules, and Markov chains with computer assistance. IAI M1 906 Prerequisite: MTH 103 (College Algebra) with a grade of C or better, or other placement options. Click here for Math placement information: https://www.harpercollege.edu/testing/mathplacement.php
Typically offered: Fall, Spring, Summer

MTH 130 - Mathematics for Elementary Teaching I (4 Credits)
3 lecture, 2 lab, 5 total contact hours
Focuses on mathematical reasoning and problem solving and is designed to meet the requirements of the state certification of elementary teachers when taken in conjunction with MTH 131. The course examines the underlying conceptual framework for the topics of sets, functions, whole numbers, number theory, integers, rational numbers, irrational numbers and the real number system. Students are expected to be active participants in the learning process. They will apply mathematical reasoning in a variety of problem solving situations using estimation, models, tables, graphs and symbolic representations. The use of appropriate techniques and tools, such as calculators and computers, are a focus of investigations and discussion throughout the course. A weekly lab component is required. Prerequisite: MTH 070 (Plane Geometry) and MTH 080 (Intermediate Algebra) with grades of C or better, or other placement options. Click here for Math placement information: https://www.harpercollege.edu/testing/mathplacement.php
Typically offered: Fall, Spring

MTH 131 - Mathematics for Elementary Teaching II (4 Credits)
3 lecture, 2 lab, 5 total contact hours
Completes the two course sequence that begins with MTH 130 and focuses on mathematical reasoning and the solving of real-life problems, rather than on routine skills. The following topics will be studied in depth: geometry, counting techniques and probability, logic and statistics. Students are expected to be active participants in the learning process. Calculators and computers will be used throughout the course. A weekly lab component is required. IAI M1 903 Prerequisite: MTH 130 (Mathematics for Elementary Teaching I) with a grade of C or better.
Typically offered: Fall, Spring

MTH 134 - Calculus for Business and Social Sciences (4 Credits)
4 lecture, 0 lab, 4 total contact hours
Designed specifically for students in business and the social sciences and does not count toward a major or minor in mathematics. Emphasizes applications of the basic concepts of calculus rather than proofs. Include limits; techniques of differentiation applied to polynomial, rational, exponential, and logarithmic functions; partial derivatives and applications; maxima and minima of functions; and elementary techniques of integration including substitution and integration by parts. Business and social science applications are stressed throughout the course. IAI M1 900-B Prerequisite: MTH 103 (College Algebra) with a grade of C or better, or other placement options. Click here for Math placement information: https://www.harpercollege.edu/testing/mathplacement.php
Typically offered: Fall, Spring, Summer

MTH 140 - Precalculus (5 Credits)
5 lecture, 0 lab, 5 total contact hours
Builds on MTH 103 (College Algebra) to provide the foundation for calculus and analytic geometry. Topics include but are not limited to radical and rational equations; equations quadratic in form; polynomial and rational functions; polynomial and rational inequalities; sequences and series; mathematical induction; the binomial theorem; trigonometric functions; inverse trigonometric functions; applications of trigonometric functions; polar coordinates and vectors; and the complex plane. Prerequisite: MTH 103 (College Algebra) with a grade of C or better, or other placement options. Click here for Math placement information: https://www.harpercollege.edu/testing/mathplacement.php
Typically offered: Fall, Spring, Summer

MTH 165 - Elementary Statistics (4 Credits)
4 lecture, 0 lab, 4 total contact hours
Focuses on statistical reasoning and the solving of problems using real world data rather than on computational skills. The use of technology-based computations (more advanced than a basic scientific calculator, such as graphing calculators with a statistical package, spreadsheets or statistical computing software) is required with an emphasis on interpretation and evaluation of statistical results. Topics must include data collection processes (observational studies, experimental design, sampling techniques, bias), descriptive methods using quantitative and qualitative data, bivariate data, correlation, and least squares regression, basic probability theory, probability distributions (normal distributions and normal curve, binomial distribution), confidence intervals and hypothesis tests using p-values. (Credit will be given for either MTH 162 or MTH 165 or MTH 225, but not for more than one of these courses.) IAI M1 902 Prerequisite: Placement into college-level mathematics without support. https://www.harpercollege.edu/testing/mathplacement.php
Typically offered: Fall, Spring, Summer

MTH 200 - Calculus I (5 Credits)
5 lecture, 0 lab, 5 total contact hours
Studies limits, continuity, derivatives, antiderivatives and definite integrals as they relate to algebraic, trigonometric, inverse trigonometric, logarithmic and exponential functions. Includes applications to geometry, science and engineering. IAI M1 900-1, IAI MTH 901 Prerequisite: MTH 140 (Precalculus) with a grade of C or better or other placement options. Click here for Math placement information: https://www.harpercollege.edu/testing/mathplacement.php
Typically offered: Fall, Spring, Summer

MTH 201 - Calculus II (5 Credits)
5 lecture, 0 lab, 5 total contact hours
Continues MTH 200. Studies differentiation of transcendental functions, techniques of integration, series, conics, polar coordinates and parametric equations with applications to science and engineering. IAI M1 900-2, IAI MTH 902 Prerequisite: MTH 200 (Calculus I) with a grade of C or better, or other placement options. Click here for Math placement information: https://www.harpercollege.edu/testing/mathplacement.php
Typically offered: Fall, Spring, Summer

MTH 202 - Calculus III (5 Credits)
5 lecture, 0 lab, 5 total contact hours
Continues MTH 201. Studies three-dimensional vectors, solid analytic geometry, vector-valued functions, partial derivatives, multiple integrals, Green's theorem, surface integrals, divergence theorem, and Stokes' theorem. IAI M1 900-3, IAI MTH 903 Prerequisite: MTH 201 (Calculus II) with a grade of C or better, or other placement options. Click here for Math placement information: https://www.harpercollege.edu/testing/mathplacement.php
Typically offered: Fall, Spring, Summer

MTH 203 - Linear Algebra (4 Credits)
4 lecture, 0 lab, 4 total contact hours
Introduces matrices, vector spaces, linear transformations. Serves as a first exposure to abstract mathematical structures. Includes matrices and their operations, determinants, solutions of systems of linear equations, Euclidean and general vector spaces, bases and dimension, linear transformations and their associated subspaces, eigenvalues, eigenvectors. Discusses applications to mathematics, computer graphics, and physical sciences. IAI MTH 911 Prerequisite: MTH 201 Calculus II (IAI M1 900-2, MTH 902) with a grade of C or better.
Typically offered: Spring, Summer

MTH 212 - Differential Equations (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Continues MTH 201. Emphasizes solutions of first order differential equations, linear differential equations, special second order equations and series solutions. Studies selections from these topics: LaPlace transforms, Fourier series, numerical methods and applications of matrix algebra. IAI MTH 912 Prerequisite: MTH 201 (Calculus II, IAI MI 900-2, IAI MTH 902) with a grade of C or better.
Typically offered: Fall, Spring, Summer

MTH 220 - Discrete Mathematics (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Introduces analysis of finite collections and mathematical foundations of sequential machines, computer system design, data structures and algorithms. Includes sets and logic, sequences and subscripts, number systems, counting, recursion, graph theory, trees, finite probability, matrices and Boolean algebra. IAI M1 905, IAI CS 915 Prerequisite: MTH 103 (College Algebra) with a grade of C or better, or other placement options. Click here for Math placement information: https://www.harpercollege.edu/testing/mathplacement.php
Typically offered: Fall, Spring, Summer

MTH 225 - Business Statistics (4 Credits)
4 lecture, 4 total contact hours
Focuses on the use of statistical concepts as decision-making tools with an emphasis on business-related applications. Topics include descriptive statistics, probablity theory, and inferential methods including chi-square tests, regression analysis and ANOVA. This course is strongly recommended for business majors. (Credit will be given for either MTH 225 or MTH 165 or MTH 162 or MGT 225,) IAI M1902 and IAI BUS 901 Prerequisite: MTH 103 with a grade of C or better, or other placement options including registration in MTH 124, MTH 134, MTH 140, MTH 200 or higher. https://www.harpercollege.edu/testing/mathplacement.php
Typically offered: Fall, Spring, Summer

Medical Office Administration (MOA)

MOA 100 - Introduction to Medical Assisting (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides an introduction to the profession of medical assisting. Emphasizes communication, professionalism, pharmacology and introduction to medical specialties.
Typically offered: Fall, Spring

MOA 145 - Health Care Records Management (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Introduces types of patient-care records prepared and maintained by health care personnel. Includes elements of records, record keeping, medical record confidentiality, privacy, security, administrative and clinical use of the electronic health record. and reimbursement, Electronic Medical Records (EMR) are utilized for the course. A basic knowledge of computers is necessary to complete this course. Prerequisite: Prior or concurrent enrollment in ENG 101 and HSC 112 with grades of C or better.
Typically offered: Fall, Spring, Summer

MOA 150 - Math Applications in Health Care (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Develops skill necessary to calculate medication dosages and solutions using the metric system. A basic math ability, including decimals, fractions and percentages, is necessary to be successful in this course.
Typically offered: Fall, Spring

MOA 195 - Principles of Health Insurance Billing (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Explores and compares major types of health insurance contracts and describes benefits and limitations. Provides practice in processing insurance claim forms (CMS-1500). Current Procedural Terminology (CPT) and International Classification of Diseases (ICD) coding techniques are introduced. Emphasis is on insurance rules and regulations, claim submission, reimbursement and collections. Prerequisite: BIO 135 and HSC 112 with grades of C or better.
Typically offered: Fall, Spring

MOA 215 - Clinical Procedures (8 Credits)
4 lecture, 8 lab, 12 total contact hours
Offers basic and advanced clinical procedures in the physician's office or clinic. Includes diagnostic and laboratory testing procedures, principles of medications, and assisting the physician in specialty examinations and minor surgical procedures. Demonstration of clinical skills in outpatient care is emphasized, with maintenance of proper patient and technician protection guidelines. Includes a clinical rotation in a health care facility. (NOTE: The program's health requirements and American Heart Association Cardiopulmonary Resuscitation (CPR) certificate must be completed prior to placement in clinical rotation.) Prerequisite: MOA 145 with a grade of C or better.
Typically offered: Fall, Spring

MOA 235 - Health Care Office Procedures (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Offers development of skills in medical front office procedures used in a health care facility. Emphasizes patient relations in health care by using office simulations including computer programs with introduction to electronic medical records. Strong emphasis on cultural diversity issues and application in the health care field. Prerequisite: HSC 112 and MOA 145 with grades of C or better.
Typically offered: Fall, Spring

MOA 245 - Health Care Office Management (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Introduces the qualities of a health care office supervisor necessary to effectively manage the physician's office, clinic or other health care facility. Includes human relations skills, personnel recruitment, coordinating and supervising office personnel, office facilities, the office policy manual, records management, patient education and time management. Class focuses on teaching the student how to be a supervisor but also how to work with and interact with their own supervisor(s). Prerequisite: MOA 215 or MOA 235 with a grade of C or better.
Typically offered: Spring

MOA 265 - Medical Receptionist Externship (3 Credits)
1 lecture, 10 lab, 11 total contact hours
Provides 160 hours during the semester of supervised experience in a health care office/facility to enhance the student's administrative technical skills. NOTE: The program's health requirements must be completed prior to placement in an on-site externship. Prerequisite: MOA 235 with a grade of C or better.

MOA 280 - Medical Assistant Externship (3 Credits)
1 lecture, 10 lab, 21 total contact hours
Provides 160 hours of supervised experience in a health care facility to enhance the student's administrative and clinical skills. One-hour seminars throughout the semester are devoted to externship issues. NOTE: The program's health requirements and American Heart Association Cardiopulmonary Resuscitation (CPR) certificate must be completed prior to placement in an on-site externship. Prerequisite: MOA 215 and MOA 235 with grades of C or better.
Typically offered: Fall, Spring, Summer

MOA 291 - Certified Medical Assistant Exam Review (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Prepares students with study skills and tips necessary to successfully pass the Certified Medical Assistant (CMA) exam. Provides assistance and guidelines for submitting the CMA exam application, reviews content on the CMA exam, develops resume writing and interviewing skills. NOTE: This course is not offered in the fall. Prerequisite: Prior or concurrent enrollment in MOA 280 with a grade of C or better. (NOTE: The prerequisite is being waived for Fall 2020.)
Typically offered: Fall, Spring, Summer

MOA 299 - Medical Office Capstone (3 Credits)
3 lecture, 3 total contact hours
Applies and integrates skills from within Medical Office Administration courses within the AAS degree program. Discusses medical office management issues and methodologies and puts them into practice. Preparation of practice management file including policies and procedures and personnel files. Prerequisite: MGT 111, MGT 270, and MOA 235 with grades of C or better and prior or concurrent enrollment in MOA 245.
Typically offered: Fall, Spring

Music (MUS)

MUS 100 - Introduction to Music Careers (1 Credit)
1 lecture, 1 lab, 2 total contact hours
Explores issues relating to the successful pursuit of a career in music. Recommended for anyone pursuing a professional music career.
Typically offered: Fall, Spring

MUS 101 - Fundamentals of Music Theory (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides the background to interpret and understand the language of music through the study of notation, rhythm, scales, intervals, triads, cadences, basic forms and musical terms. Students are prepared for the study of harmony and for practical musical activity. Suitable for pre-teachers and non-music majors.
Typically offered: Fall, Spring

MUS 102 - Introduction to Electronic/Computer Music (3 Credits)
3 lecture, 1 lab, 4 total contact hours
Introduces basic concepts of electronic music production utilizing digital audio workstations and 3rd party plugins. Students will learn MIDI sequencing, beat production, synthesis, editing, and mixing to create multi-instrumental electronic music projects.
Typically offered: Spring

MUS 103 - Music Appreciation (3 Credits)
3 lecture, 0 lab, 3 total contact hours
A broad survey of music, its history, mechanics, and relationship to categories of social identity. This course introduces students to the concepts and categories that musicologists and cultural theorists use to study music across different forms and periods. By the end of the class, students will have developed a greater understanding of identity and its relationship to sound. IAI F1 900
Typically offered: Fall, Spring

MUS 104 - Introduction to American Music (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Surveys the early history of popular music in the United States of America including rock and roll, rhythm and blues, country, hip-hop, disco and more. Students are introduced to the concepts and categories that cultural theorists and musicologists use to study music. By the end of this class, students will have developed an understanding of how music fits within histories of racism, sexism, classism and homophobia. IAI F1 904
World Culture and Diversity
Typically offered: Fall, Spring

MUS 106 - Introduction to Jazz (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Examines the evolution and development of jazz, America's only native musical art form. The study begins in 1851 with the blending of African, European, Haitian, and Creole music and culture in New Orleans, which resulted in the creation of blues and improvisation. The study continues with further development in Chicago, Kansas City, New York, and Los Angeles. The course introduces blues, Dixieland, big band, cool, hard bop, funk, free, and fusion. IAI F1 905D
Typically offered: Fall, Spring

MUS 107 - Introduction to Music in Theatre (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Surveys characteristic elements of music in the theatre. Includes opera, operetta and Broadway musicals. Examines them as media for communicating the philosophic aesthetic and psychological perspectives of composers and their eras. Music experience not required. IAI F1 910
Typically offered: Fall, Spring

MUS 108 - Introduction to World Music (3 Credits)
3 lecture, 3 total contact hours
Surveys the folk and traditional musics from around the world. Examines music-making, the people and musical cultures of South Asia, East Asia and Oceania, Middle East, Eastern Europe, Europe, Africa and the Americas. Explores inter-relationships between musical genres and other art forms (dance, theater, visual arts and literature) and analyzes how these musics have intersected with the issues of race, class, gender, religion ritual, politics, social movements and cultural identity. IAI F1 903N
World Culture and Diversity
Typically offered: Fall, Spring

MUS 109 - Appreciation of Modern Music (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Develops a stylistic frame of reference to understand and appreciate American popular music from the 1980s to the present. Surveys characteristics of electronic dance music, punk and indie, hip-hop, reggaeton, and more. Students will examine the events leading toward and following the economic collapse experienced within the music industry in the early-2000s.
Typically offered: Fall, Spring

MUS 110 - Div Traditions in American Music: Hip-Hop (3 Credits)
3 lecture, 1 lab, 4 total contact hours
Presents a broadly chronological overview of the development of Hip-Hop from the late 1970s through to the present. In addition to exploring Hip-Hop's unique challenge to Western ideas of musicality and intellectual authorship, we will be attending to economics and urban geography, legislating white supremacy, and the various social locations from which people interact with Blackness. IAI F1 905D
Typically offered: Fall, Spring

MUS 111 - Theory of Music I (3 Credits)
3 lecture, 2 lab, 5 total contact hours
Begins the study of functional tonal harmony to be utilized in composition, songwriting, analysis and musicianship. Topics include pitch identification, triads and seventh chords, inversions, Roman Numeral analysis, chord symbols, note-to-note counterpoint, part writing, and basic chord progressions. Students will demonstrate comprehension through analysis as well as creating rudimentary projects using music notation software and digital audio workstations. Corequisite: MUS 115.
Typically offered: Fall, Spring

MUS 112 - Theory of Music II (3 Credits)
3 lecture, 2 lab, 5 total contact hours
Explores concepts of diatonic harmony and the study of Baroque-era counterpoint to be utilized in composition, songwriting, analysis and musicianship. Topics include secondary dominants, secondary leading-tone chords, sequences, tonicization, modulation types, invention and fugue forms. Students will demonstrate comprehension through analysis as well as creating multi-instrumental projects using music notation software and digital audio workstations. Prerequisite: MUS 111 with a grade of C or better. Corequisite: MUS 116.
Typically offered: Fall, Spring, Summer

MUS 115 - Aural Skills I (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Develops skills in melodic, harmonic and rhythmic dictation, and sight singing. The following concepts will be covered and explored using the solfeggio system to sing/hear: major and minor tonalities, simple intervals, and diatonic triads of major and minor keys. Melodic dictation examples will include melodies in both major and minor keys; harmonic dictation will be introduced using 2-voice examples. Corequisite: MUS 111.
Typically offered: Fall, Spring

MUS 116 - Aural Skills II (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Develops skills in melodic, harmonic and rhythmic dictation, and sight singing. The following concepts will be covered and explored using the solfeggio system to sing/hear: major and minor tonalities, simple intervals, diatonic triads of major and minor keys, diatonic seventh chords of major and minor keys. Dictation will introduce tonicization of the dominant key and modulation to relative keys. Corequisite: MUS 112.
Typically offered: Fall, Spring, Summer

MUS 120 - Introduction to Music Literature (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Surveys the styles, periods, literature and personalities in each of the commonly accepted music periods, with primary emphasis on hearing music of each style. IAI F1 901
Typically offered: Fall

MUS 130 - Choir (1 Credit)
0 lecture, 3 lab, 3 total contact hours
Provides mixed voice choral experience for singers of average or above average ability. Stresses fundamentals of good choral diction and tone through choral works of various styles and types. May be repeated up to a maximum of four credit hours. Prerequisite: Consent of instructor.
Typically offered: Fall, Spring

MUS 140 - Band (1 Credit)
0 lecture, 3 lab, 3 total contact hours
Provides students proficient in playing band instruments the opportunity to perform music of various styles and types. Stresses sight reading and musicianship. Develops skills, musical understanding and enjoyment. May be repeated up to a maximum of four credit hours. Prerequisite: Consent of instructor.
Typically offered: Fall, Spring

MUS 145 - Ensembles (1 Credit)
0 lecture, 3 lab, 3 total contact hours
Provides students with proficiency on an instrument or in voice the opportunity to perform in various vocal and instrumental chamber music ensembles. Stresses sight reading and musicianship. Develops skills, musical understanding and enjoyment. May be repeated up to a maximum of four credit hours. Prerequisite: Consent of instructor.
Typically offered: Fall, Spring

MUS 150 - Orchestra (1 Credit)
0 lecture, 3 lab, 3 total contact hours
Provides students proficient in playing orchestral instruments the opportunity to perform music of various styles and types. Stresses sight reading and musicianship. Develops skills, musical understanding and enjoyment. May be repeated up to a maximum of four credit hours. Prerequisite: Consent of instructor.
Typically offered: Fall, Spring

MUS 165 - Class Piano I (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Develops introductory level digital keyboard skills for students, including music majors whose principal instrument is not the piano. Includes study of music notation, development of basic keyboard playing technique, introduction to sight reading, harmonization, transposition and improvisation.
Typically offered: Fall, Spring

MUS 166 - Class Piano II (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Develops additional skills from MUS 165 using digital keyboards. Content includes increased focus on playing technique, music reading, simply accompanying and repertoire. Prerequisite: MUS 165 with a grade of C or better or proficiency examination.
Typically offered: Fall, Spring

MUS 167 - Class Guitar (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Develops introductory levels of guitar playing. Includes basics of proper positioning, finger and plectrum playing techniques, reading music notation including chord graphs and charts, introductory-level improvisation and learning appropriate level repertoire. Prepares students for continued private studio study in MUS 199.
Typically offered: Fall, Spring

MUS 169 - Class Voice (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Develops beginning levels of the singing voice. Content includes basics of body position, breathing technique, development of tone quality, accurate intonation, reading music and learning appropriate level repertoire.
Typically offered: Fall, Spring

MUS 176 - Percussion (1 Credit)
.5 lecture, 6 lab, 6.5 total contact hours
Provides individual study for students desiring to improve their music performing skills. One half-hour lesson per week. May be repeated up to a maximum of four elective credit hours.

MUS 178 - Electric Guitar (1 Credit)
.5 lecture, 6 lab, 6.5 total contact hours
Provides individual instruction for students wishing to improve their skills in electric guitar performance. During thirty minute weekly lessons, various skills and techniques in electric guitar performance in various genres of music will be covered. May be repeated up to a maximum of four credit hours.

MUS 180 - Flute and Piccolo (1 Credit)
.5 lecture, 6 lab, 6.5 total contact hours
Provides individual study for students desiring to improve their music performing skills. One half-hour lesson per week. May be repeated up to a maximum of four elective credit hours. Does not meet the requirements of the Associate of Fine Arts degree or pursuit of a major or minor in music at the baccalaureate level.
Typically offered: Fall, Spring, Summer

MUS 181 - Oboe and English Horn (1 Credit)
.5 lecture, 6 lab, 6.5 total contact hours
Provides individual study for students desiring to improve their music performing skills. One half-hour lesson per week. May be repeated up to a maximum of four elective credit hours. Does not meet the requirements of the Associate of Fine Arts degree or pursuit of a major or minor in music at the baccalaureate level.
Typically offered: Fall, Spring, Summer

MUS 182 - Clarinet (1 Credit)
.5 lecture, 6 lab, 6.5 total contact hours
Provides individual study for students desiring to improve their music performing skills. One half-hour lesson per week. May be repeated up to a maximum of four elective credit hours. Does not meet the requirements of the Associate of Fine Arts degree or pursuit of a major or minor in music at the baccalaureate level.
Typically offered: Fall, Spring, Summer

MUS 183 - Bassoon and Contra Bassoon (1 Credit)
.5 lecture, 6 lab, 6.5 total contact hours
Provides individual study for students desiring to improve their music performing skills. One half-hour lesson per week. May be repeated up to a maximum of four elective credit hours. Does not meet the requirements of the Associate of Fine Arts degree or pursuit of a major or minor in music at the baccalaureate level.
Typically offered: Fall, Spring, Summer

MUS 184 - Saxophone (1 Credit)
.5 lecture, 6 lab, 6.5 total contact hours
Provides individual study for students desiring to improve their music performing skills. One half-hour lesson per week. May be repeated up to a maximum of four elective credit hours. Does not meet the requirements of the Associate of Fine Arts degree or pursuit of a major or minor in music at the baccalaureate level.
Typically offered: Fall, Spring, Summer

MUS 185 - French Horn (1 Credit)
.5 lecture, 6 lab, 6.5 total contact hours
Provides individual study for students desiring to improve their music performing skills. One half-hour lesson per week. May be repeated up to a maximum of four elective credit hours. Does not meet the requirements of the Associate of Fine Arts degree or pursuit of a major or minor in music at the baccalaureate level.
Typically offered: Fall, Spring, Summer

MUS 186 - Trumpet (1 Credit)
.5 lecture, 6 lab, 6.5 total contact hours
Provides individual study for students desiring to improve their music performing skills. One half-hour lesson per week. May be repeated up to a maximum of four elective credit hours. Does not meet the requirements of the Associate of Fine Arts degree or pursuit of a major or minor in music at the baccalaureate level.
Typically offered: Fall, Spring, Summer

MUS 187 - Trombone (1 Credit)
.5 lecture, 6 lab, 6.5 total contact hours
Provides individual study for students desiring to improve their music performing skills. One half-hour lesson per week. May be repeated up to a maximum of four elective credit hours. Does not meet the requirements of the Associate of Fine Arts degree or pursuit of a major or minor in music at the baccalaureate level.
Typically offered: Fall, Spring, Summer

MUS 188 - Baritone (1 Credit)
.5 lecture, 6 lab, 6.5 total contact hours
Provides individual study for students desiring to improve their music performing skills. One half-hour lesson per week. May be repeated up to a maximum of four elective credit hours. Does not meet the requirements of the Associate of Fine Arts degree or pursuit of a major or minor in music at the baccalaureate level.
Typically offered: Fall, Spring, Summer

MUS 189 - Tuba (1 Credit)
.5 lecture, 6 lab, 6.5 total contact hours
Provides individual study for students desiring to improve their music performing skills. One half-hour lesson per week. May be repeated up to a maximum of four elective credit hours. Does not meet the requirements of the Associate of Fine Arts degree or pursuit of a major or minor in music at the baccalaureate level.
Typically offered: Fall, Spring, Summer

MUS 190 - Drum Set (1 Credit)
.5 lecture, 6 lab, 6.5 total contact hours
Provides individual study for students desiring to improve their music performing skills. One half-hour lesson per week. May be repeated up to a maximum of four elective credit hours. Does not meet the requirements of the Associate of Fine Arts degree or pursuit of a major or minor in music at the baccalaureate level.
Typically offered: Fall, Spring, Summer

MUS 191 - Violin (1 Credit)
.5 lecture, 6 lab, 6.5 total contact hours
Provides individual study for students desiring to improve their music performing skills. One half-hour lesson per week. May be repeated up to a maximum of four elective credit hours. Does not meet the requirements of the Associate of Fine Arts degree or pursuit of a major or minor in music at the baccalaureate level.
Typically offered: Fall, Spring, Summer

MUS 192 - Viola (1 Credit)
.5 lecture, 6 lab, 6.5 total contact hours
Provides individual study for students desiring to improve their music performing skills. One half-hour lesson per week. May be repeated up to a maximum of four elective credit hours. Does not meet the requirements of the Associate of Fine Arts degree or pursuit of a major or minor in music at the baccalaureate level.
Typically offered: Fall, Spring, Summer

MUS 193 - Cello (1 Credit)
.5 lecture, 6 lab, 6.5 total contact hours
Provides individual study for students desiring to improve their music performing skills. One half-hour lesson per week. May be repeated up to a maximum of four elective credit hours. Does not meet the requirements of the Associate of Fine Arts degree or pursuit of a major or minor in music at the baccalaureate level.
Typically offered: Fall, Spring, Summer

MUS 194 - String Bass (1 Credit)
.5 lecture, 6 lab, 6.5 total contact hours
Provides individual study for students desiring to improve their music performing skills. One half-hour lesson per week. May be repeated up to a maximum of four elective credit hours. Does not meet the requirements of the Associate of Fine Arts degree or pursuit of a major or minor in music at the baccalaureate level.
Typically offered: Fall, Spring, Summer

MUS 195 - Harp (1 Credit)
.5 lecture, 6 lab, 6.5 total contact hours
Provides individual study for students desiring to improve their music performing skills. One half-hour lesson per week. May be repeated up to a maximum of four elective credit hours. Does not meet the requirements of the Associate of Fine Arts degree or pursuit of a major or minor in music at the baccalaureate level.
Typically offered: Fall, Spring, Summer

MUS 196 - Piano (1 Credit)
.5 lecture, 6 lab, 6.5 total contact hours
Provides individual study for students desiring to improve their music performing skills. One half-hour lesson per week. May be repeated up to a maximum of four elective credit hours. Does not meet the requirements of the Associate of Fine Arts degree or pursuit of a major or minor in music at the baccalaureate level.
Typically offered: Fall, Spring, Summer

MUS 198 - Voice (1 Credit)
.5 lecture, 6 lab, 6.5 total contact hours
Provides individual study for students desiring to improve their music performing skills. One half-hour lesson per week. May be repeated up to a maximum of four elective credit hours. Does not meet the requirements of the Associate of Fine Arts degree or pursuit of a major or minor in music at the baccalaureate level.
Typically offered: Fall, Spring, Summer

MUS 199 - Guitar (1 Credit)
.5 lecture, 6 lab, 6.5 total contact hours
Provides individual study for students desiring to improve their music performing skills. One half-hour lesson per week. May be repeated up to a maximum of four elective credit hours. Does not meet the requirements of the Associate of Fine Arts degree or pursuit of a major or minor in music at the baccalaureate level.
Typically offered: Fall, Spring, Summer

MUS 201 - Fundamentals of Audio Technology (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Introduces students to concepts in sound physics, psychoacoustics, room acoustics, signal flow and gain staging in both analog and digital domains, microphone specifications, microphone placement techniques, analog to digital conversion as well as ear training skills to be utilized in audio production applications.
Typically offered: Fall, Spring, Summer

MUS 202 - Recording Techniques (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Teaches recording skills in studio and live sound environments. By conducting multi-track recording sessions, Also covers spectral, dynamic and time-based processing techniques, complex signal flow, parallel processing, live and overdub recording, comping, subgroups and bussing. Working within a Digital Audio Workstation (DAW), Includes more complex routing in the digital realm along with proper archiving techniques. Live sound techniques will be demonstrated in our theaters and performances spaces giving students first-hand experience with design, setup and tear down of PA systems, location recording, microphone placement techniques, feedback treatment, room acoustics, live manipulation of a console, fold back, lighting and organization/management of a live event. Prerequisite: MUS 201 with a grade of C or better.
Typically offered: Fall, Spring, Summer

MUS 203 - Mixing and Mastering Techniques (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Teaches proper mixing and mastering techniques in both the digital and analog domains. Prioritizes a thorough knowledge of digital processing via plugins while also conducting sessions in an analog studio. Explores proper spectral, spatial and dynamic mastering techniques with both digital and analog mastering chains with a focus on metering and loudness for various mediums, inter-sample peaks, SRC, dithering and creating a DDP image. Prerequisite: MUS 201 with a grade of C or better.
Typically offered: Fall, Spring

MUS 211 - Theory of Music III (3 Credits)
3 lecture, 2 lab, 5 total contact hours
Explores concepts of chromatic harmony with an in-depth look into Binary, Ternary and Sonata forms to be utilized in composition, songwriting, analysis and musicianship. Topics include modal mixture, Neapolitan sixth and Augmented-sixth chords, modulation to remote keys and Sonata form. Students will demonstrate comprehension through analysis as well as creating multi-instrumental projects using music notation software, digital audio workstations, and various 3rd party plugins. Prerequisite: MUS 112 with a grade of C or better. Corequisite: MUS 215.
Typically offered: Fall, Spring

MUS 212 - Theory of Music IV (3 Credits)
3 lecture, 2 lab, 5 total contact hours
Begins the study of 20th Century and Modern musical concepts to be utilized in composition, songwriting, analysis and musicianship. Topics include Extended Tonality, Set Theory, Serialism, Indeterminacy, Minimalism, and Spectralism. Students will demonstrate comprehension through analysis as well as creating multi-instrumental projects using music notation software, digital audio workstations, and various 3rd party plugins. Prerequisite: MUS 211 with a grade of C or better. Corequisite: MUS 216.
Typically offered: Fall, Spring

MUS 215 - Aural Skills III (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Develops skills in melodic, harmonic and rhythmic dictation and sight singing. The following concepts will be covered and explored using the solfeggio system to sing/hear: major and minor tonalities, simple and compound intervals, diatonic triads of major and minor keys, diatonic seventh chords of major and minor keys, and modes. Dictation will introduce tonicization and modulation to any closely related key, and modes. Corequisite: MUS 211.
Typically offered: Fall, Spring

MUS 216 - Aural Skills IV (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Develops skills in melodic, harmonic and rhythmic dictation and sight singing. The following concepts will be covered and explored using the solfeggio system to sing/hear: pentatonic, octatonic, whole-tone, and chromatic scales as well as modal mixture. Dictation will introduce modal mixture, Neapolitan sixth and Augmented-sixth chords, and post-tonal examples. Corequisite: MUS 212.
Typically offered: Fall, Spring

MUS 265 - Class Piano III (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Continues development of skills learned in MUS 166. Third of four courses using digital keyboards. Content includes greater emphasis on harmonization, improvisation, sight reading, score reading, musical forms, transposition, modulation and intermediate level repertoire. Prerequisite: MUS 166 with a grade of C or better or proficiency examination.
Typically offered: Fall, Spring

MUS 266 - Class Piano IV (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Continues development of skills learned in MUS 265. Fourth of four courses using digital keyboards. Content includes more advanced work on technical development, sight reading, harmonization, improvisation, modulation, transposition, score reading, accompanying, aural skills and playing intermediate to advanced level repertoire. Prerequisite: MUS 265 with a grade of C or better or proficiency examination.
Typically offered: Fall, Spring

MUS 275 - Audio/Visual Arts Technology Internship (1-3 Credits)
0 lecture, 5 - 15 lab, 5 - 15 total contact hours
Provides work experience in the audio or video arts technology fields. Credit is given for participation in a supervised work experience wherein an organized training plan will be followed.
Typically offered: Fall, Spring, Summer

MUS 276 - Percussion (2 Credits)
1 lecture, 12 lab, 13 total contact hours
Provides individual study at a more advanced level, especially for students pursuing a degree or career in music. One hour lesson per week. May be repeated up to a maximum of eight credit hours. Requires a successful audition or permission of instructor. Prerequisite: Successful audition

MUS 278 - Electric Guitar (2 Credits)
1 lecture, 12 lab, 13 total contact hours
Provides individual instruction for students wishing to improve their skills in electric guitar performance. During one-hour weekly lessons, various skills and techniques in electric guitar performance in various genres of music will be covered. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition

MUS 279 - Private Lessons in Composition (2 Credits)
1 lecture, 12 lab, 13 total contact hours
Provides individual instruction for students wishing to improve their composition and songwriting skills. During one-hour weekly lessons, both acoustic and electronic composition may be covered in topics ranging from orchestration, arranging, music application, software, production, film scoring and other formats of composition. Students will create and present a completed work during a final listening critique amongst their peers. This course is repeatable twice for a total of 6 credit hours.
Typically offered: Fall, Spring

MUS 280 - Flute and Piccolo (2 Credits)
1 lecture, 12 lab, 13 total contact hours
Provides individual study at a more advanced level, especially for students pursuing a degree or career in music. One hour lesson per week. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition or permission of instructor.
Typically offered: Fall, Spring, Summer

MUS 281 - Oboe and English Horn (2 Credits)
1 lecture, 12 lab, 13 total contact hours
Provides individual study at a more advanced level, especially for students pursuing a degree or career in music. One hour lesson per week. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition or permission of instructor.
Typically offered: Fall, Spring, Summer

MUS 282 - Clarinet (2 Credits)
1 lecture, 12 lab, 13 total contact hours
Provides individual study at a more advanced level, especially for students pursuing a degree or career in music. One hour lesson per week. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition or permission of instructor.
Typically offered: Fall, Spring, Summer

MUS 283 - Bassoon and Contra Bassoon (2 Credits)
1 lecture, 12 lab, 13 total contact hours
Provides individual study at a more advanced level, especially for students pursuing a degree or career in music. One hour lesson per week. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition or permission of instructor.
Typically offered: Fall, Spring, Summer

MUS 284 - Saxophone (2 Credits)
1 lecture, 12 lab, 13 total contact hours
Provides individual study at a more advanced level, especially for students pursuing a degree or career in music. One hour lesson per week. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition or permission of instructor.
Typically offered: Fall, Spring, Summer

MUS 285 - French Horn (2 Credits)
1 lecture, 12 lab, 13 total contact hours
Provides individual study at a more advanced level, especially for students pursuing a degree or career in music. One hour lesson per week. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition or permission of instructor.
Typically offered: Fall, Spring, Summer

MUS 286 - Trumpet (2 Credits)
1 lecture, 12 lab, 13 total contact hours
Provides individual study at a more advanced level, especially for students pursuing a degree or career in music. One hour lesson per week. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition or permission of instructor.
Typically offered: Fall, Spring, Summer

MUS 287 - Trombone (2 Credits)
1 lecture, 12 lab, 13 total contact hours
Provides individual study at a more advanced level, especially for students pursuing a degree or career in music. One hour lesson per week. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition or permission of instructor.
Typically offered: Fall, Spring, Summer

MUS 288 - Baritone (2 Credits)
1 lecture, 12 lab, 13 total contact hours
Provides individual study at a more advanced level, especially for students pursuing a degree or career in music. One hour lesson per week. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition or permission of instructor.
Typically offered: Fall, Spring, Summer

MUS 289 - Tuba (2 Credits)
1 lecture, 12 lab, 13 total contact hours
Provides individual study at a more advanced level, especially for students pursuing a degree or career in music. One hour lesson per week. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition or permission of instructor.
Typically offered: Fall, Spring, Summer

MUS 290 - Drum Set (2 Credits)
1 lecture, 12 lab, 13 total contact hours
Provides individual study at a more advanced level, especially for students pursuing a degree or career in music. One hour lesson per week. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition or permission of instructor.
Typically offered: Fall, Spring, Summer

MUS 291 - Violin (2 Credits)
1 lecture, 12 lab, 13 total contact hours
Provides individual study at a more advanced level, especially for students pursuing a degree or career in music. One hour lesson per week. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition or permission of instructor.
Typically offered: Fall, Spring, Summer

MUS 292 - Viola (2 Credits)
1 lecture, 12 lab, 13 total contact hours
Provides individual study at a more advanced level, especially for students pursuing a degree or career in music. One hour lesson per week. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition or permission of instructor.
Typically offered: Fall, Spring, Summer

MUS 293 - Cello (2 Credits)
1 lecture, 12 lab, 13 total contact hours
Provides individual study at a more advanced level, especially for students pursuing a degree or career in music. One hour lesson per week. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition or permission of instructor.
Typically offered: Fall, Spring, Summer

MUS 294 - String Bass (2 Credits)
1 lecture, 12 lab, 13 total contact hours
Provides individual study at a more advanced level, especially for students pursuing a degree or career in music. One hour lesson per week. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition or permission of instructor.
Typically offered: Fall, Spring, Summer

MUS 295 - Harp (2 Credits)
1 lecture, 12 lab, 13 total contact hours
Provides individual study at a more advanced level, especially for students pursuing a degree or career in music. One hour lesson per week. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition or permission of instructor.
Typically offered: Fall, Spring, Summer

MUS 296 - Piano (2 Credits)
1 lecture, 12 lab, 13 total contact hours
Provides individual study at a more advanced level, especially for students pursuing a degree or career in music. One hour lesson per week. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition or permission of instructor.
Typically offered: Fall, Spring, Summer

MUS 298 - Voice (2 Credits)
1 lecture, 12 lab, 13 total contact hours
Provides individual study at a more advanced level, especially for students pursuing a degree or career in music. One hour lesson per week. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition or permission of instructor.
Typically offered: Fall, Spring, Summer

MUS 299 - Guitar (2 Credits)
1 lecture, 12 lab, 13 total contact hours
Provides individual study at a more advanced level, especially for students pursuing a degree or career in music. One hour lesson per week. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition or permission of instructor.
Typically offered: Fall, Spring, Summer

Networking (NET)

NET 101 - Orientation to Cybersecurity Careers (1 Credit)
1 lecture, 1 lab, 1 total contact hours
Provides an overview of the cybersecurity industry and the different careers and work roles in the field. Learn the major skills and knowledge required for cybersecurity professions and associate employment skills and knowledge sets to specific classes in the Harper College Cybersecurity AAS Degree and certificate programs. Covers issues facing the cybersecurity industry, cybersecurity professional organizations, and industry credentials. Includes cybersecurity workforce competencies, review of academic degrees, certificates, and credentials. Covers navigating the college environment, learning and academic strategies, and career development.
Start Smart
Typically offered: Fall, Spring, Summer

NET 105 - Information Technology Fundamentals (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides students with the skills required to identify and explain the basics of computing, IT, infrastructure, application and software, software development, database fundamentals and security. Contains basic computer maintenance and support principles. Includes computer science related topics including programming concepts and principles of software development and database design. Aligns to the CompTIA IT (ITF+) Fundamentals certification.
Typically offered: Fall, Spring, Summer

NET 111 - A+ Hardware (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides students with experience installing, configuring, maintaining, upgrading diagnosing, troubleshooting, and networking recent and current personal computer hardware. Prerequisite: NET 105 with a grade of C or better or concurrent enrollment.
Typically offered: Fall, Spring, Summer

NET 112 - A+ Operating Systems Technologies (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides students with experience installing, configuring, upgrading, diagnosing, troubleshooting, and networking recent and current personal computer operating systems. Prerequisite: NET 105 with a grade of C or better or concurrent enrollment.
Typically offered: Fall, Spring, Summer

NET 121 - Computer Networking (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides students with hands-on experience implementing and maintaining computer networks. Includes networking standards, architecture, models, protocols, operations, security and troubleshooting using current network operating systems. Introduces IP addressing and Ethernet fundamentals. Course prepares students to build simple local area networks (LANs) that integrate IP addressing schemes and foundational network security. Aligns to the CompTIA Network+ certification. Prerequisite: CIS 101 or NET 105 or WEB 110 with a grade of C or better. NET 105 can be taken concurrently with NET 121.
Typically offered: Fall, Spring, Summer

NET 122 - Internet Protocols (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides students with a detailed examination of Internet addressing and protocols. Includes IP addressing, routing, IP, ICMP, ARP, TCP, UDP, DHCP, DNS, HTTP, FTP, and SMTP. Uses protocol analyzers to monitor and examine network traffic. Prerequisite: CIS 101 or NET 105 or WEB 110 with a grade of C or better.
Typically offered: Fall, Spring

NET 201 - Service Desk and Service Management (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides a comprehensive introduction to service desk and IT service management concepts. Includes service desk operations, roles and responsibilities, processes and procedures, service strategy, service design, service transition, service operation and continual service improvement. Emphasizes communication and teamwork skills through collaborative hands-on assignments and acitivities. Prerequisite: NET 105 with a grade of C or better.
Typically offered: Fall, Spring

NET 240 - Linux Server Administration (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides students with a comprehensive introduction to Linux Server Administration. Includes installation, configuration, and administration of a Linux Server environment. Covers user management, hardware and software configuration, and security as well as network services configuration. Includes creating simple shell scripts, booting into different run levels, controlling services, identifying processes, and virtual machines. Aligns to the CompTIA Linux+ Certification. Prerequisite: NET 121 with a grade of C or better.
Typically offered: Fall, Spring

NET 260 - Windows Server Administration (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides students with a comprehensive introduction to Windows Server Administration. Includes installation, configuration, administration, and security of a Windows Server environment. Learn to configure network services including DNS, DHCP, ADS, printing, and network routing. Implement and manage Active Directory Domain Services (AD DS) in on-premises and hybrid networking infrastructure and manage storage and file services. Aligns to the Microsoft Administering Windows Server Hybrid Core Infrastructure Certification. Prerequisite: NET 121 with a grade of C or better.
Typically offered: Fall, Spring

NET 262 - Windows 365 Administration (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides students with the skills necessary to deploy and manage a Microsoft 365 tenant. Implement and manage identity and access systems. Administer, manage and monitor security, threats and compliance in Microsoft 365 and hybrid environments. Includes identity synchronization, and security and compliance. Aligns to the Microsoft 365 Administrator Certification. Prerequisite: NET 121 with a grade of C or better.
Typically offered: Fall, Spring

NET 270 - Cisco Networking (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides students with a comprehensive introduction to Cisco networking, switches and routers. Includes network access, IP connectivity, IP services, security, and management automation. Prerequisite: NET 121 with a grade of C or better.
Typically offered: Fall, Spring

NET 280 - Cybersecurity Fundamentals (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides students with a hands-on foundation of essential cybersecurity concepts, principles, trends, practices, technologies, and compliance. Includes topics related to threats, attacks, vulnerabilities, risk, emerging technologies, security architecture and design, identity, and access management, risk management, cryptography, and secure communications. Aligns to the CompTIA Security+ Certification. Prerequisite: NET 121 or NET 122 with a grade of C or better.
Typically offered: Fall, Spring

NET 281 - Enterprise And Network Security (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides students with basic network security protocols and advanced enterprise security strategies with an emphasis on practical, real-world applications. Includes security concepts, principles, and practices. Covers host, end devices, servers, networks, wireless and mobile devices, virtual systems, and cloud-based systems. Prepares students with the skills to identify, prevent, and mitigate security threats in network environments and enterprise settings. Aligns to the ISC2 Systems Security Certified Practitioner Certification. Prerequisite: Prior or concurrent enrollment in NET280 with a grade of C or better.
Typically offered: Fall, Spring

NET 282 - Cybersecurity Governance, Risk Management, and Compliance (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides students with an overview of the critical aspects of cybersecurity governance, risk management, and compliance. Equips students with knowledge of current cybersecurity laws, regulations, and best practices. Explores various frameworks and standards used in information security management. Covers regulatory acts. Includes active monitoring techniques and security auditing, compliance, and network monitoring tools. Aligns to the ISACA Certified Information Security Manager Certification. Prerequisite: NET280 with a grade of C or better.
Typically offered: Fall, Spring

NET 283 - Ethical Hacking and Penetration Testing (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides students with hands-on skills required of an ethical hacker using a variety of penetration testing tools. Focuses on hacking techniques and technology from an offensive perspective. Covers advanced security concepts, hacking techniques, exploits, automated programs, and defensive recommendations. Includes both passive and active reconnaissance techniques, identifying vulnerabilities across networks, systems, and applications. Explore ethical and legal considerations as well as implications. Aligns to the CompTIA PenTest+ Certifications. Prerequisite: NET 240 and NET 280 with grades of C or better.
Typically offered: Fall, Spring

NET 284 - Digital Forensics (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides students with hands-on experience preserving, identifying, extracting, documenting and interpreting computer data. Examine computer data for evidence of a crime or violations of corporate policy. Includes performing forensic investigation on Windows, Unix and Linux file systems. Covers evidence handling, chain of custody, collection, and recovery of computer data using forensic software and methods. Align to the EC-Council Computer Hacking Forensic Investigator (CHFI) Certification. Prerequisite: NET 240 with a grade of C or better.
Typically offered: Fall, Spring

NET 290 - Cloud Computing (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides students with hands-on experience in cloud computing. Examines cloud applications, security protocols as well as associated services and deployment models. Reviews system virtualization and its relation to cloud-based computing. Covers managing cloud resources, from planning, provisioning, implementing and deploying cloud based applications. Introduces cloud system disaster recovery. Includes best practices for cloud migration, governance, and networking. Aligns to the CompTIA Cloud+ Certification. Prerequisite: Prior or Concurrent enrollment in NET 240 or NET 260 or NET 280 with grades of C or better.
Typically offered: Fall, Spring

NET 298 - Cybersecurity Capstone (2 Credits)
0 lecture, 4 lab, 0 - 12 total contact hours
Provides students with the opportunity to demonstrate their knowledge of cybersecurity theory, principles, best industry practices, methodologies, tools, and technologies. Expects students to use scholarly research methods and leverage their investigative, problem solving, and research skills to study and design a cybersecurity project that addresses a real-world issue or challenge. Guidance and support are provided along with graded evaluation and feedback from their faculty throughout the semester. Prerequisite: CIS 226, NET 280, NET 282, NET 283, NET 284 with grades of C or better.
Typically offered: Fall, Spring

Nursing (NUR)

NUR 101 - PN Fundamentals (4 Credits)
4 lecture, 4 total contact hours
Introduces concepts as related to the practical nurse's role as a member of the discipline of nursing and a provider of care. Emphasizes the nursing process, essential components of therapeutic communication, basic skills, and legal and ethical professional issues for the delivery of safe and competent care for diverse patients throughout their lifespan. Provides theory and practice in assisting patients to meet basic needs. Prerequisite: Admission into the Practical Nursing certificate program and BIO 260, ENG 101 and PSY 101 with grades of C or better, and prior or concurrent enrollment in BIO 261 and NUR 213 with grades of C or better. Corequisite: NUR 131.
Typically offered: Fall, Spring

NUR 102 - PN Medical Surgical Nursing (2 Credits)
2 lecture, 2 total contact hours
Focuses on the use of the nursing process to meet the needs of adults. Emphasis is on the normal physiologic and psychosocial aspects of basic care needs as well as the common diseases specific to each patient population. Prerequisite: BIO 261, NUR 101, NUR 131, and NUR 213 with grades of C or better. Corequisite: NUR 132.
Typically offered: Spring, Summer

NUR 104 - PN Field Experience (3 Credits)
1 lecture, 5 lab, 6 total contact hours
Utilizes the nursing process to provide care for patients with commonly occurring problems causing health interferences. Provides opportunity for supervised experience as a member of the nursing care team in health care settings, assuming the role and responsibilities of the practical nurse. Prerequisite: NUR 102, NUR 108, NUR 109, NUR 132 and NUR 139 with grades of C or better.
Typically offered: Fall, Summer

NUR 108 - PN Mental Health Nursing (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Utilizes the nursing process to provide patient-centered nursing care for patients experiencing psychosocial issues/mental health disorders. Emphasizes health promotion concepts in the care of patients across the life cycle and the continuum of mental health care. Addresses various treatment modalities and interventions including those applicable to community based care and long term care. Prerequisite: NUR 101 and NUR 105 with grades of C or better.
Typically offered: Fall, Spring

NUR 109 - PN Maternity and Pediatrics (2 Credits)
2 lecture, 2 total contact hours
Focuses on the use of the nursing process to meet the needs of childbearing and childrearing families including infants and children. Emphasis is on the normal physiologic and psychosocial aspects of basic care needs as well as the common diseases specific to each patient population. Prerequisite: NUR 101, NUR 131, and NUR 213 (formerly HSC 201) with grades of C or better. Corequisite: NUR 139.
Typically offered: Fall, Spring

NUR 110 - Nursing Concepts, Roles and Practice (3 Credits)
3 lecture, 3 total contact hours
Establishes a firm basis on which to build subsequent nursing courses. Examines the essential concepts and core values of the nursing profession including health and wellness, safety, caring, critical thinking, ethics, the nursing process, and standards of practice. Prerequisite: Admission into the Nursing degree program and BIO 261, ENG 101 and PSY 101 with grades of C or better, and prior or concurrent enrollment in NUR 180 with a grade of C or better.
Typically offered: Fall, Spring

NUR 112 - Fundamentals of Nursing Practice (3 Credits)
9 lab, 9 total contact hours
Provides the student with the opportunity to practice and apply basic knowledge and skills to the provision of patient care in the laboratory and clinical setting. Students will begin development and application of the nursing process, clinical reasoning, and professional communication when caring for patients. Prerequisite: Prior or concurrent enrollment in NUR 180 with a grade of C or better and admission into the NUR AAS degree program. Corequisite: NUR 110.
Typically offered: Fall, Spring

NUR 115 - Concepts of Psychiatric Care (2 Credits)
2 lecture, 2 total contact hours
Establishes a firm basis on which to build subsequent psych tech/nursing courses. Examines the essential concepts of mental health care including basic mental health nursing concepts, therapeutic and safe environments, nonpharmacological treatments, psychobiological disorders, psychopharmacological therapies, psychiatric emergencies and specific populations. Prerequisite: Admission into the Psych Tech program and CNA 111, CNA 112, PSY 101, BIO 135 - may accept BIO 260 and 261 as course substitution - with grades of C or better. Corequisite: PSY 228, PSY 230, and SPE 215.
Typically offered: Fall

NUR 131 - PN Fundamentals Clinical (3 Credits)
0 lecture, 9 lab, 9 total contact hours
Provides the student with the opportunity to practice and apply basic knowledge and skills to the provision of patient care in the laboratory and clinical setting. The course emphasizes the role of the practical nurse as this role relates to the nursing process, essential components of therapeutic communication, basic skills, and legal and ethical professional issues for the delivery of safe and competent care for diverse patients throughout their lifespan. Provides practice in assisting patients to meet basic needs. Prerequisite: BIO 260, ENG 101 and PSY 101 with grades of C or better and prior or concurrent enrollment in BIO 261 and NUR 213 with grades of C or better, and admission into the Practical Nursing certificate program.
Typically offered: Fall, Spring

NUR 132 - PN Medical Surgical Clinical (2 Credits)
0 lecture, 6 lab, 6 total contact hours
Provides the student with the opportunity to apply common disease concepts related to the care of the adult in the clinical setting. Emphasis is on the normal physiologic and psychosocial aspects of basic care needs as well as the common diseases specific to each patient adult population. Prerequisite: BIO 261, NUR 101, NUR 131, and NUR 213 (formerly HSC 201) with grades of C or better. Corequisite: NUR 102 and NUR 108.
Typically offered: Spring, Summer

NUR 139 - PN Maternity and Pediatrics Clinical (2 Credits)
0 lecture, 4 lab, 4 total contact hours
Focuses on the application of the nursing process to meet the needs of childbearing and childrearing families including infants and children. Emphasis is on the normal physiologic and psychosocial aspects of basic care needs as well as the common diseases specific to each patient population. Selected clinical experiences in the areas, where practical nurses can be employed. Prerequisite: NUR 101, NUR 131, and NUR 213 (formerly HSC 201) with grades of C or better. Corequisite: NUR 109.
Typically offered: Fall, Spring

NUR 140 - Adult Health Concepts I (2 Credits)
2 lecture, 2 total contact hours
Develops essential medical and surgical knowledge and skills needed to provide nursing care to patients with respiratory, cardiac, gastrointestinal and endocrine dysfunctions throughout the adult life cycle. Utilization of critical thinking and therapeutic communication is used through implementation of the nursing process. Health promotion and disease prevention will be addressed. Prerequisite: NUR 110 and NUR 112 with grades of C or better.
Typically offered: Fall, Spring

NUR 141 - Adult Health Clinical I (2 Credits)
6 lab, 6 total contact hours
Provides the student with the opportunity to apply essential respiratory, cardiac, gastrointestinal and endocrine systems' dysfunctions knowledge and skills to the provision of patient care in the clinical setting. Students will utilize critical thinking and therapeutic communication when providing care to patients. Nursing care will be provided in a variety of setting including acute and ambulatory care. Prerequisite: NUR 112 with a grade of C or better. Corequisite: NUR 140.
Typically offered: Fall, Spring

NUR 150 - Psychosocial Concepts (2 Credits)
2 lecture, 2 total contact hours
Utilizes the nursing process to provide patient-centered nursing care for patients experiencing psychosocial issues/mental health disorders. Emphasizes health promotion concepts in the care of patients across the life cycle and the continuum of mental health care. Addresses various treatment modalities and interventions including those applicable to community-based care. Prerequisite: NUR 110 and NUR 112 with grades of C or better.
Typically offered: Fall, Spring

NUR 151 - Psychosocial Concepts Clinical (2 Credits)
4 lab, 4 total contact hours
Provides experience in caring for patients with psychological issues/mental health disorders in a variety of acute care and community-based health care settings. Students will utilize critical thinking and therapeutic communication in providing care to patients across the life cycle in the continuum of mental health care. Prerequisite: NUR 112 with a grade of C or better. Corequisite: NUR 150.
Typically offered: Fall, Spring

NUR 180 - Pathophysiology (3 Credits)
3 lecture, 3 total contact hours
Presents the pathophysiological basis of illness for the beginning professional nurse. Focuses on major diseases and illnesses that affect the health of the individual throughout the life cycle. Theories relating etiology, pathogenesis and clinical manifestations are used to study common disease processes that compromise the client's health. Prerequisite: BIO 261 with a grade of C or better. NOTE: This prerequisite will be waived for Summer 2020.
Typically offered: Fall, Spring

NUR 185 - Transition to Registered Professional Nursing I (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Builds on the knowledge and skills obtained in the Practical Nursing Program. Focuses on the critical thinking skills necessary to transition from the role of Licensed Practical Nurse (LPN) into Harper's Nursing A.A.S. Degree Program. Examines the philosophy of the associate degree nursing program and major concepts of the role of the Registered Professional Nurse. Includes the essential concepts and core values of the nursing profession including health and wellness, safety, caring, ethics, clinical reasoning, health promotion teaching, the nursing process and standards of practice for the Registered Professional Nurse. Prerequisite: Licensure as a Licensed Practical Nurse (LPN), meet Nursing Program admission criteria as stated in the Associate Degree Nursing Handbook, and completion of NUR 104 with a grade of C or better. Corequisite: BIO 230, NUR 180 and NUR 210.
Typically offered: Fall, Spring

NUR 195 - Transition to Registered Professional Nursing II (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Builds on the knowledge and skills learned in the practical nursing program. Develops the knowledge and the critical thinking skills necessary to transition from the role of Licensed Practical Nurse (LPN) into the Nursing A.A.S. Degree Program with a focus on medical surgical nursing topics at Harper College. Examines the philosophy of the Nursing A.A.S. Degree Program and major concepts of the role of the Registered Professional Nurse. Includes an emphasis on application of the nursing process related to selected health problems. Prerequisite: Licensure as a Licensed Practical Nurse (LPN), meet Nursing Program admission criteria as stated in the Associate Degree Nursing Handbook, BIO 230, NUR 180, NUR 185, and NUR 210 with grades of C or better. Corequisite: NUR 196.
Typically offered: Fall, Spring

NUR 196 - Transition to Registered Professional Nursing Lab/Clinical (2 Credits)
0 lecture, 6 lab, 6 total contact hours
Focuses on the application of the nursing process to adult patients with respiratory, cardiovascular, gastrointestinal and endocrine health problems in the lab, simulation hospital, and acute care hospital clinical settings. Prerequisite: Licensure as a Licensed Practical Nurse (LPN), meet Nursing Program admission criteria as stated in the Associate Degree Nursing Handbook. Completion of BIO 230, NUR 104, NUR 180, NUR 210, and NUR 185 with grades of C or better. Corequisite: NUR 195.
Typically offered: Fall, Spring

NUR 201 - Child Bearing Concepts (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Utilizes the nursing process to provide patient-centered nursing care for childbearing women, infants and patients with problems related to the reproductive system. Addresses health promotion and common alterations in body systems. Prerequisite: NUR 140, NUR 141, NUR 150, NUR 151, NUR 210, NUR 213, and PSY 228 with grades of C or better.
Typically offered: Fall, Spring

NUR 202 - Adult Health Concepts II (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Develops essential nursing medical and surgical knowledge and skills needed to provide nursing to patients with respiratory, musculoskeletal, sensory, neurological, and renal dysfunction throughout the adult life cycle with emphasis on the older adult. Utilization of critical thinking and therapeutic communication is used through implementation of the nursing process. Health promotion and disease prevention will be addressed. Prerequisite: NUR 140, NUR 141, NUR 150, NUR 151, NUR 210, NUR 213, and PSY 228 with grades of C or better.
Typically offered: Fall, Spring

NUR 205 - Pediatric Health Concepts (2 Credits)
2 lecture, 2 total contact hours
Expands on utilization of the nursing process in exploring the nurse's role as provider of care, educator and advocate for infants, children, and adolescents. Addresses topics of health promotion and maintenance for children and families. Considers acute, chronic and terminal conditions experienced by children. Prerequisite: NUR 140, NUR 141, NUR 150, NUR 151, NUR 210, NUR 213, and PSY 228 with grades of C or better.
Typically offered: Fall, Spring

NUR 208 - Care of Individuals with Developmental and Behavioral Disabilities (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Establishes the theory and principles directly related to the delivery of care and services to persons with intellectual/developmental disabilities in residential and ambulatory settings. The course addresses the cause and treatment of behavioral disorders in people diagnosed with developmental disabilities. Theory and application of behavior assessment and intervention techniques are stressed. Behavioral assessment, teaching strategies, pharmacological interventions and special dietary needs are also covered. Students learn how to teach self-help and independent living skills to persons with intellectual/developmental disabilities. Prerequisite: PSY 228, NUR 110, or NUR 115 with grades of C or better.
Typically offered: Spring

NUR 210 - Physical Assessment (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Provides theory and demonstration of skills required for basic, systematic physical assessment. Includes content and practical experience in interviewing and obtaining a health history and the skills of inspection, palpation, percussion and auscultation as they are utilized in the routine patient assessments performed by the registered nurse. Focuses on the assessment of normal findings and the description of deviations from normal. Discusses cultural considerations and expected findings of individuals across the life cycle, i.e., infant/child, adolescent, young/middle adult, and older adult. Requires the synthesis of previously learned knowledge of anatomy, physiology, nursing concepts and nursing process. Prerequisite: BIO 260 and EMS 212, or NUR 104 or NUR 112 with grades of C or better.
Typically offered: Fall, Spring, Summer

NUR 213 - Advanced Pharmacology (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Builds on pharmacology content begun in previous coursework (either NUR 111 or HSC 165). Discusses pharmacokinetics and pharmacodynamics of the major classifications of medications at an advanced level in order to understand the pharmacological activity within each classification. Incorporates the principles of safe drug administration. NOTE: This course is designed for nursing students. (formerly HSC 201) Prerequisite: BIO 135 and HSC 165, or BIO 260 and NUR 110 or HSC 112 and HSC 165 with grades of C or better, or prior or concurrent enrollment in NUR 101. Admission into the Nursing AAS program, Practical Nursing program or Medical Corpsman−PNC program.
Typically offered: Fall, Spring, Summer

NUR 216 - Adult Health Concepts III (2 Credits)
2 lecture, 2 total contact hours
Focuses on application of advanced nursing medical and surgical knowledge and skills needed to provide nursing care to patients with hematologic, immunologic, and oncology disorders. Concepts regarding critical care will also be presented and discussed. Utilization of critical thinking and therapeutic communication is used through implementation of the nursing process. Health promotion and disease prevention will be addressed. Prerequisite: NUR 201, NUR 202, NUR 205, NUR 220, NUR 240 and NUR 250 with grades of C or better.
Typically offered: Fall, Spring

NUR 218 - Role Transition Seminar (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Facilitates the transition from nursing student to entry-level registered nurse. Addresses the challenges and responsibilities associated with management and leadership within an organization, assuming a professional role, career management, nursing research and continuing education. Prerequisite: Prior or concurrent enrollment in NUR 216 and NUR 260 with grades of C or better.
Typically offered: Fall, Spring

NUR 220 - Child Bearing Clinical (2 Credits)
0 lecture, 4 lab, 4 total contact hours
Provides experiences in caring for childbearing families and patients with reproductive problems in acute and community-based settings. Students will utilize the nursing process to address common alterations in body systems. Prerequisite: NUR 140, NUR 141, NUR 150, NUR 151, NUR 210, NUR 213, and PSY 228 with grades of C or better. Corequisite: NUR 201.
Typically offered: Fall, Spring

NUR 225 - Principles of Mental Health Counseling and Group Therapy (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Introduces philosophies, theories for intervention, and the problem-solving process. Emphasizes the development of a skill base used in counseling techniques and client intervention. Enhances interpersonal relationship skills through knowledge of communication techniques. Covers group techniques in clinical or agency settings based on various theoretical models with emphasis on the leadership role, phases of group development, and interaction within the group. Prerequisite: HSC 165, HSC 213, HSC 225, SPE 200, SPE 215, PSY 228, PSY 230, NUR 115 with grades of C or better. Corequisite: NUR 208 and NUR 230.
Typically offered: Spring

NUR 230 - Mental Health Communities and Practicum (3 Credits)
2 lecture, 4 lab, 6 total contact hours
Prepares students for employment as psychiatric technicians. Includes a review of nursing assistant skills, psychopathology, DSM diagnostics, strengths perspective, bio-psycho-social assessments, and psychotropic medications. Explores the responsibilities of mental health technicians who work under the supervision of a psychiatrist, registered nurse, or social worker; as well as participate in the development and implementation of therapeutic treatment plans for persons with mental disorders; particularly those receiving treatment in an inpatient setting. Provides experiences in mental health facilities including residential, acute and out-patient locations. Emphasis will be on the collaborative care and management of groups of patients with selected disorders. The clinical experiences will enable students to gain practical experience utilizing critical thinking, teaching−learning principles and therapeutic communication when providing care to multiple patients or residents in the clinical setting. Prerequisite: HSC 165, HSC 213, HSC 225, SPE 200, SPE 215, PSY 228, PSY 230, NUR 115 with grades of C or better. Corequisite: NUR 208 and NUR 225.
Typically offered: Spring

NUR 240 - Adult Health Clinical II (2 Credits)
0 lecture, 6 lab, 6 total contact hours
Provides the student with the opportunity to apply knowledge learned about respiratory, musculoskeletal, sensory, neurological and renal dysfunction to the provision of patient care in the clinical setting. Students will utilize critical thinking and therapeutic communication when providing care to patients in this area. Nursing care will be provided in a variety of setting including acute care, ambulatory care and the community. Prerequisite: NUR 140, NUR 141, NUR 150, NUR 151, NUR 210, NUR 213, and PSY 228 with grades of C or better. Corequisite: NUR 202.
Typically offered: Fall, Spring

NUR 250 - Pediatric Health Clinical (2 Credits)
0 lecture, 4 lab, 4 total contact hours
Applies principles of the nursing process to provide nursing care to infants, children and adolescents in hospital and community-based settings. Experience is provided in caring for children and families with a variety of specific system disorders. Emphasis will be on utilizing critical thinking and the nursing process to provide safe care in various health care settings. Prerequisite: NUR 140, NUR 141, NUR 150, NUR 151, NUR 210, NUR 213, and PSY 228 with grades of C or better. Corequisite: NUR 205.
Typically offered: Fall, Spring

NUR 260 - Adult Health Clinical III (2 Credits)
0 lecture, 6 lab, 6 total contact hours
Provides the student with the opportunity to apply advanced concepts to patients with complex multisystems disorders. Areas of concentration include but are not limited to hematological dysfunction, oncology, multisystem organ failure, shock, and burns. Students will utilize critical thinking and therapeutic communication when providing care to patients in this clinical rotation. Nursing care will be provided in a variety of settings including acute care and the community. Prerequisite: NUR 220, NUR 240 and NUR 250 with grades of C or better. Corequisite: NUR 216. (The corequisite is being waived Fall 2020 only.)
Typically offered: Fall, Spring

NUR 280 - Role Transition Practicum (3 Credits)
0 lecture, 15 lab, 30 total contact hours
Provides experiences to begin the transition from nursing student to registered nurse. Emphasis will be on the collaborative care and management of groups of patients with selected system disorders. The clinical experiences will enable students to assume the role of the registered nurse in the management and delegation of nursing care of clients with system disorders and will be under the direction of a registered nurse preceptor. Students will utilize critical thinking, teaching-learning principles, and therapeutic communication when providing care to multiple patients in the clinical setting. Prerequisite: NUR 216 and NUR 260 with grades of C or better. Corequisite: NUR 218.
Typically offered: Fall, Spring

Nutrition (NTR)

NTR 100 - Introduction to the Nutrition Profession (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Introduces the field of nutrition and dietetics including history of the profession, educational pathways, career options, code of ethics, professional development and scope of practice. This course includes guest speakers, hands-on activities and assignments.
Typically offered: Fall

NTR 101 - Fundamentals of Nutrition (3 Credits)
3 lecture, 3 total contact hours
Introduces the science of nutrition and its relationship to health and disease. Nutrients found in foods, their digestion, absorption and metabolism by the body; cultural, socioeconomic and psychological influences on food selection; and application of these concepts to promote good nutritional health and prevent disease will be covered. (formerly DIT 101)
Typically offered: Fall, Spring, Summer

NTR 110 - Principles of Food Preparation (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Introduces the scientific principles of food preparation. Emphasis is place on food selection and basic food preparation practices. Laboratory experience includes application of these principles, sensory evaluation and recipe modification.

NTR 200 - Nutrition through the Lifecycle (3 Credits)
3 lecture, 3 total contact hours
Focuses on nutrition principles and nutrient needs required for individuals throughout the human lifespan. Uses case studies to reinforce topics. Prerequisite: NTR 101 with a grade of C or better.
Typically offered: Fall

NTR 205 - World Cultures and Food (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Examines the uniqueness of food patterns from around the world as shaped by geographic, historical, socioeconomic and religious factors. Explores how food can be a bridge to understanding multiculturalism through the preparation of traditional recipes in the laboratory setting. World Culture and Diversity
Typically offered: Spring

NTR 210 - Food Science (4 Credits)
3 lecture, 2 lab, 5 total contact hours
Introduces the scientific principles of food preparation including chemical, physical and functional properties of food as well and applications to the field of nutrition and dietetics. Lab experiences include applications of these principles. Prerequisite: CHM 110 with a grade of C or better, or equivalent chemistry course with coordinator. approval.

NTR 225 - Sports Nutrition (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides in-depth study of the physiological principles behind sports nutrition as it relates to the influence of nutrition on exercise performance, exercise training and recovery. (Also listed as KIN 225. Credit will be given for either NTR 225 or KIN 225, but not both.) (formerly DIT 225)
Typically offered: Spring

NTR 295 - Community Nutrition (3 Credits)
3 lecture, 3 total contact hours
Introduces principles of community nutrition including public health, legislation and policy, health care systems, program development and marketing, delivering nutrition programs, planning nutrition interventions, nutrition education and gaining cultural competence. Prerequisite: NTR 101 with a grade of C or better.
Typically offered: Spring

NTR 296 - Dietetic Internship Preparation I (6 Credits)
6 lecture, 0 lab, 6 total contact hours
Focuses on medical nutrition therapy for health conditions and disease states. Prepares students through case studies, simulations and hands-on learning activities. Prerequisite: Admission to Dietetic Internship program and consent of program coordinator required. Concurrent Enrollment: Must be enrolled in NTR 298 or NTR 299.
Typically offered: Fall

NTR 297 - Dietetic Internship Preparation II (6 Credits)
6 lecture, 0 lab, 6 total contact hours
Focuses on principles of management, food service, community nutrition and wellness as it relates to nutrition. Prepares students through projects, field trips, simulations and other alternate practice experiences. Prerequisite: NTR 296 with a grade of B or better and consent of program coordinator required. Concurrent Enrollment: Must be enrolled in either NTR 298 or NTR 299.
Typically offered: Spring

NTR 298 - Dietetic Internship Rotation I (6 Credits)
0 lecture, 32 lab, 32 total contact hours
Offers students assigned clinical experience in approved health care and community agencies. Emphasis is placed on the Nutrition Care Process. Prerequisite: Consent of program coordinator required. Concurrent Enrollment: Must be enrolled in NTR 296 or NTR 297.
Typically offered: Fall, Spring

NTR 299 - Dietetic Internship Rotation II (6 Credits)
0 lecture, 32 lab, 32 total contact hours
Offers students assigned internship experiences in food service operations, wellness, health care and community agencies. Prerequisite: Consent of program coordinator required. Concurrent Enrollment: Must be enrolled in NTR 296 or 297.
Typically offered: Fall, Spring

Philosophy (PHI)

PHI 101 - Critical Thinking (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Introduces the student to reasoning in a language-centered context. Students will learn how to identify arguments and distinguish them from other types of discourse. Some topics covered will be: evaluating claims, recognizing informal fallacies, problem solving, evaluating media. Students will also learn how to cast issues in a neutral manner to recognize and appreciate a variety of perspectives, and to argue for and against more than one perspective on an issue. The focus of this course is on everyday practical reasoning. IAI H4 906
Typically offered: Fall, Spring, Summer

PHI 102 - Symbolic Logic (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Introduces the student to formal symbolic logic. After an introduction to the concept of argument, students will learn both Aristotelian and modern symbolic logic. Applications to the real world include contracts, legal arguments, and computer languages.
Typically offered: Fall, Spring, Summer

PHI 105 - Introduction to Philosophy (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Principles and problems of philosophy as seen in different schools of thought. Topics: validity of human knowledge; nature of reality; mind and body; free will and determinism; moral and aesthetic values; and religious belief. IAI H4 900
Typically offered: Fall, Spring, Summer

PHI 115 - Ethics (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Consideration of problems of value and conduct, including the question of the "good life" or happiness; and contemporary moral issues such as war, violence, drugs, racism, crime and punishment. IAI H4 904
Typically offered: Fall, Spring, Summer

PHI 120 - Social and Political Philosophy (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Focuses on the ideas of justice, liberty, equality, law and order, rights and privileges. This includes discussion of such issues as democracy, communism, nuclear war, capital punishment, sexual equality, hunger and drugs. IAI H4907
Typically offered: Fall, Spring, Summer

PHI 130 - Applied Ethics for Artificial Intelligence (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Examines central ethical questions posed by the design and implementation of artificial intelligence (AI). Students draw on leading ethical frameworks and perspectives to navigate challenges posed by the introduction of AI to a variety of morally significant contexts, such as public safety, medicine, and criminal justice.

PHI 150 - Business Ethics (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Introduces philosophical ethical theory and its application to business decisions. Considers theories of economic justice, social responsibility, hiring practices and rights of employees and employers.
Typically offered: Fall, Spring, Summer

PHI 160 - Non-Western Philosophy (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Introduces selected philosophical concepts and value systems of several non-Western cultures. Gives attention to the Bhagavad Gita, Vedanta and other Hindu texts, Confucius, the Tao Te Ching and other Chinese classics and key texts from at least two other traditions. IAI H4 903N
World Culture and Diversity
Typically offered: Fall, Spring

PHI 170 - Environmental Ethics (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Introduces philosophical ethical theory and its application to environmental issues. Explores the roots of Western ideas about nature (Biblical, Greek, early Modern), the American environmental discussion and current positions including development, conservation, preservation and restoration. Considers issues including human-centered vs. life-centered views, whether species or habitats have value, appreciation vs. cost/benefit approaches, and bioregionalism.
Typically offered: Fall, Spring

PHI 180 - Biomedical Ethics (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Considers the ethics of the professional-patient relationship (confidentiality, informed consent, paternalism, truth-telling), the ethics of life and death (abortion, euthanasia, suicide), and the ethics of medicine on a social scale (the right to health care, the distribution of medical resources).
Typically offered: Fall, Spring

PHI 190 - Philosophy and Gender (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Introduces philosophical thinking and its application to issues concerning women. Explores a variety of theories by and about women. Considers a number of issues including images of women, biological vs. social conditioning, the relation of gender to class and race, women's spirituality, education, family, work, violence and pornography. Men are welcome to take the course.
World Culture and Diversity
Typically offered: Spring

PHI 205 - Religions of the World (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Introduces the teachings, practices, social structures and histories of the religions of India (mainly Buddhism and Hinduism), and China and Japan (mainly Confucianism, Shinto and Taoism), and of the Middle East (mainly Christianity, Islam and Judaism). IAI H5 904N
World Culture and Diversity
Typically offered: Fall, Spring, Summer

PHI 215 - Religion in America (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Surveys the contribution of religion to American culture including the differences between rural and urban society, the development of religious freedom and the rise of a "secular religion." Examines the emergence of new forms of belief and practice and the variety of religious issues confronting American society today. IAI H5 905
World Culture and Diversity
Typically offered: Fall, Spring, Summer

PHI 220 - Philosophy of Religion (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Examines the nature and presuppositions of Western religions, especially the reasons which can be given for and against the existence of God. Selected further topics: the problem of evil, life after death, the nature of religious experience, language, knowledge, and authority, religion and science, major philosophical theories on the nature of religion. IAI H4 905
Typically offered: Fall, Spring

PHI 231 - History of Philosophy--Ancient and Medieval (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Surveys the major figures and schools in Western philosophical tradition from the pre-Socratic Greeks through the 14th century. Emphasis on interpreting philosophical reflection in light of the social, political, religious and cultural context from which it arises. IAI H4 901
Typically offered: Fall

PHI 232 - History of Philosophy-Modern (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Surveys the major figures and schools in Western philosophical tradition from the 15th to the 20th century. Emphasizes interpreting philosophical reflection in light of the social, political, religious and cultural context from which it arises. IAI H4 902
Typically offered: Spring

Phlebotomy (PHB)

PHB 101 - Phlebotomy Principles and Practice (4 Credits)
3 lecture, 3 lab, 6 total contact hours
Includes the role of the phlebotomist, infection control and safety in the workplace; anatomy and physiology appropriate to the practice of phlebotomy, blood collection equipment and blood collection procedures; including venipuncture, skin puncture, collection of certain body fluids, specimen transport and storage requirements, communication skills, quality assurance and professionalism. The laboratory component focuses on the development of skills in performing phlebotomy procedures. Students who wish to become certified as phlebotomy technicians must complete this course and also complete PHB 102 with a grade of C or better. Prerequisite: Prior or concurrent enrollment in HSC 112 with a grade of C or better.
Typically offered: Fall, Spring, Summer

PHB 102 - Phlebotomy Internship (2 Credits)
1 lecture, 8 lab, 9 total contact hours
Consists of 120 clinical hours of supervised phlebotomy practice at a local health care facility. The internship rotation schedule is arranged on an individual basis. Special registration permit for registering for the internship is required. NOTE: Possession of a current Cardiopulmonary Resuscitation (CPR) for the Health Care Provider certification card and completion of the State of Illinois criminal background check, drug screen and the program's health requirements are required prior to placement in the internship. All students wishing to sit for the national certification exam must have earned a high school diploma or equivalency. Proof of high school graduation or GED is required before registering for PHB 102. Prerequisite: HSC 112 and PHB 101 with grades of C or better.
Typically offered: Fall, Spring, Summer

PHB 103 - Phlebotomy for Health Care Providers (2 Credits)
1 lecture, 4 lab, 5 total contact hours
Presents students with an overview of basic concepts of infection control and safety in the workplace, anatomy, and physiology appropriate to the practice of phlebotomy, blood collection equipment and blood collection procedures, including venipuncture, skin puncture and specimen processing. Focuses on laboratory development of hands-on skills designed for health care provider students that are not seeking phlebotomy certification or clinical placement. This course is not used in the phlebotomy program accreditation. Prerequisites: Coordinator approval needed to register for this course. Student must be 18 years of age and have a minimum of 1 year of health care field experience and/or be registered in a health career program.
Typically offered: Summer

Physical Therapist Assistant (PTA)

PTA 101 - Introduction to Physical Therapist Assistant (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Introduces students to Physical Therapist Assistant (PTA) as a career. Defines the role of a PTA in the health care system. Provides students with opportunities to observe physical therapy evaluations and treatments for patients with various diagnoses. Introduces techniques for documentation and review of medical records. Discusses billing procedures and third-party payers. Reviews HIPAA, Patient Bill of Rights, APTA Code of Conduct, Code of Ethics. Prerequisite: PTA 111 with a grade of C or better.
Typically offered: Fall

PTA 105 - Orthopedics for the Physical Therapist Assistant (4 Credits)
2 lecture, 6 lab, 8 total contact hours
Prepares students to address the needs of patients with orthopedic conditions and injuries in a clinical laboratory course. Introduces students to manual muscle testing, strengthening interventions, gait training and wheelchair mobility. Addresses interventions for compression wrapping and therapeutic taping. Examines the use of prosthetics and orthotics for rehabilitation intervention. Applies clinical problem-solving skills and develops ability to modify treatment techniques for optimal outcomes. Prerequisite: PTA 111 with a grade of C or better.
Typically offered: Fall

PTA 111 - Kinesiology for the Physical Therapist Assistant (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Applies biomechanical principles and analysis to human movement. Focuses on appendicular skeleton, upper extremity and lower extremity osteokinematics and arthrokinematics. Instructs in assessment of gait and gait deviations. Prerequisite: Admission into the Physical Therapist Assistant program.
Typically offered: Summer

PTA 115 - Manual Techniques for the Physical Therapist Assistant (2 Credits)
0 lecture, 4 lab, 4 total contact hours
Instructs in application and documentation of manual techniques for palpation, joint mobilization and stretching. Demonstrates techniques for correctly documenting manual techniques. Prerequisite: PTA 101, PTA 105, PTA 120 and PTA 140 with grades of C or better.
Typically offered: Spring

PTA 120 - Therapeutic Exercise for Physical Therapist Assistant I (1 Credit)
0 lecture, 3 lab, 3 total contact hours
Examines the use of common therapeutic exercise and fitness techniques in the context of physical therapy practice and services. Instructs in therapeutic exercise to improve range of motion, flexibility, strength, and endurance. Focuses on exercise progression and regression for musculoskeletal conditions. Examines the effect of surgical intervention on exercise tolerance and progression. Prerequisite: PTA 111 with a grade of C or better.
Typically offered: Fall

PTA 130 - Physical Therapist Assistant Clinical Experience I (2 Credits)
0 lecture, 6 lab, 6 total contact hours
Provides students with a clinical experience, supervised directly by a licensed PT or PTA with focus on gaining hands-on treatment experience in a clinical environment in a pass/fail course. Addresses communication skills such as documentation and patient interview. Provides students with opportunity to develop clinical problem solving skills. This course is graded using a pass/fail grade mode. Prerequisite: PTA 115, PTA 160, PTA 201, PTA 205, and PTA 210 with grades of C or better.
Typically offered: Summer

PTA 140 - Intervention Fundamentals (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Introduces the student to the foundations and principles of interventions as they apply to physical therapy. Also addresses entry-level healthcare skills. Focuses on patient positioning and draping, transfers, standard precautions, levels of assistance, safety and body mechanics. Prerequisite: PTA 111 with a grade of C or better.
Typically offered: Fall

PTA 160 - Pathophysiology for the Physical Therapist Assistant (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Utilizes Clinical manifestations to study common disease processes and identify their implications when performing physical therapy intervention. Prerequisite: BIO 261, PTA 101, PTA 105, PTA 120 and PTA 140 with grades of C or better.
Typically offered: Spring

PTA 201 - Cardiopulmonary and Integumentary for the Physical Therapist Assistant (4 Credits)
2 lecture, 6 lab, 8 total contact hours
Describes common cardiopulmonary diagnoses in a clinical laboratory class. Introduces students to principles of skilled intervention and progression of intervention. Focuses on advanced treatment techniques for aerobic capacity training, and airway clearance techniques. Provides instruction on safe functional training for activities of daily living and plyometric activities. Explains recognition of wounds of various etiologies. Present strategies for repositioning, pressure relief and edema management. Prerequisite: BIO 261, PTA 101, PTA 105, PTA 120 and PTA 140 with grades of C or better.
Typically offered: Spring

PTA 205 - Therapeutic Modalities (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Introduces therapeutic modalities as they are applied to patients in a clinical setting to alter physiologic processes and decrease pain. Focuses on indications, precautions, and contraindications for use of each modality. instructs students on safe techniques for application. Prerequisite: BIO 261, PTA 101, PTA 105, PTA 120 and PTA 140 with grades of C or better.
Typically offered: Spring

PTA 208 - Special Populations for the Physical Therapist Assistant (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Presents considerations for treating pediatric, bariatric and geriatric patients and those with multiple co-morbidities. Focuses on treatment strategies for each classification of patient. Introduces interventions for common congenital diseases, diabetes, amputations, and the aging process. Prerequisite: PTA 115, PTA 160, PTA 201, PTA 205, and PTA 210 with grades of C or better.
Typically offered: Summer

PTA 210 - Neurology for the Physical Therapist Assistant (4 Credits)
2 lecture, 6 lab, 8 total contact hours
Introduces students to neurologic dysfunction and to provision of interventions including therapeutic exercises, neuromuscular re-education, developmental training, and postural awareness in a clinical laboratory course. Focuses on maintaining static and dynamic balance, correct body mechanics for therapist and patient during exercises and transitional movements. Applies clinical problem solving skills and develops ability to modify treatment techniques for optimal outcomes. Prerequisite: BIO 261, PTA 101, PTA 105, PTA 120, and PTA 140 with grades of C or better.
Typically offered: Spring

PTA 215 - Advanced Interventions (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Develops students' critical thinking skills to determine appropriate interventions for patients of all ages and complexities. Prerequisite: PTA 130 with a grade of P and PTA 208 and 220 with grades of C or better.
Typically offered: Fall

PTA 220 - Therapeutic Exercise for Physical Therapist Assistant II (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Examines the use of common advanced therapeutic exercise, neuromuscular re-education interventions, and aerobic conditioning techniques in the context of physical therapy care and services. Instructs in therapeutic exercise for the cardiopulmonary and neurological patient as well as various special populations. Prerequisites: PTA 115, PTA 160, PTA 201, PTA 205 and PTA 210 with grades of C or better.
Typically offered: Summer

PTA 225 - Professional Seminar for Physical Therapist Assistants (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Continues to develop a student's understanding of Physical Therapist Assistant scope of practice and professional code of ethics. Prepares students to sit for the professional licensing exam upon graduation. Instructs students in preparation for job search. Prerequisite: PTA 130 with a grade of P and PTA 208 and PTA 220 with grades of C or better.
Typically offered: Fall

PTA 230 - Physical Therapist Assistant Clinical Experience II (4 Credits)
0 lecture, 12 lab, 12 total contact hours
Provides students with a clinical experience, supervised directly by a licensed PT or PTA with focus on implementing treatments and modifying interventions in a clinical environment in a pass/fail course. Addresses communication skills such as documentation and interacting with other disciplines in the health care team. Presents students with opportunity to develop clinical problem solving skills. Provides students with experiences to begin to transition from the PTA student to entry-level clinician. This course is graded using a pass/fail grade mode. Prerequisite: PTA 130 with a grade of P, and PTA 208 and PTA 220 with grades of C or better.
Typically offered: Fall

PTA 235 - Physical Therapist Assistant Clinical Experience III (7 Credits)
0 lecture, 21 lab, 21 total contact hours
Provides students with experiences to transition from PTA student to entry-level clinician at the culmination of the course, while being supervised directly by a licensed PT or PTA with focus on independently implementing treatments and modifying interventions in a clinical environment in a pass/fail course. Continues to address communication skills such as documentation and interacting with other disciplines in the health care team. Provides opportunity for students to demonstrate entry-level clinical problem solving skills. This course is graded using a pass/fail grade mode. Prerequisite: PTA 215 and PTA 225 with grades of C or better and PTA 230 with a grade of P.
Typically offered: Fall

Physics (PHY)

PHY 100 - Basic Concepts in Physics (3 Credits)
3 lecture, 3 total contact hours
Examines basic topics in physics including motion, force, energy, electricity and magnetism, waves and particles, and atomic structure. Course is intended for non-science majors fulfilling non-laboratory science requirements. IAI P9 900L Prerequisite: Placement into college-level mathematics without support. https://www.harpercollege.edu/testing/mathplacement.php
Typically offered: Fall, Spring, Summer

PHY 110 - Introduction to Physics (4 Credits)
3 lecture, 2 lab, 5 total contact hours
Examines topics from physics including motion, structure of matter, electricity and magnetism, waves and particles, and atomic structure. This course is intended for non-science majors fulfilling laboratory science requirements. IAI P1 900L Prerequisite: Placement into college-level mathematics without support. https://www.harpercollege.edu/testing/mathplacement.php
Typically offered: Fall, Spring

PHY 112 - Energy and Society (4 Credits)
3 lecture, 2 lab, 5 total contact hours
Introduces non-science majors to topics from various sciences as they relate to energy resources and energy consumption. Connects the theory of energy to its practical applications. Examines the connection between science and economics, politics and other social issues, using energy as a focus. (Meets laboratory science requirements for non-science majors). (formerly PHS 105) IAI P1 901L Prerequisite: Placement into college-level mathematics without support. https://www.harpercollege.edu/testing/mathplacement.php
Typically offered: Fall, Spring

PHY 121 - Introductory Physics I (5 Credits)
4 lecture, 3 lab, 7 total contact hours
Covers mechanics, heat, fluids, and sound. Intended for students in life science, architecture, and technology. Students pursuing degrees in engineering, physics or chemistry should enroll in PHY 201. Knowledge of high school trigonometry assumed. IAI P1 900L Prerequisite: MTH 140 with a grade of C or better, or placement options into MTH 200 (Calculus 1, IAI M1 900-1, IAI MTH 901). Click here for Math placement information: https://www.harpercollege.edu/testing/mathplacement.php
Typically offered: Fall, Spring, Summer

PHY 122 - Introductory Physics II (5 Credits)
4 lecture, 3 lab, 7 total contact hours
Continues PHY 121. Topics in electricity, magnetism, light and modern physics. Prerequisite: PHY 121 with a grade of C or better.
Typically offered: Spring, Summer

PHY 201 - General Physics I-Mechanics (5 Credits)
4 lecture, 2 lab, 6 total contact hours
Introduces mechanics using calculus. Topics include force and motion, work and energy, rotation, oscillations, and fluids. For students in chemistry, engineering, mathematics and physics. IAI P2 900L, IA PHY 911 Prerequisite: MTH 200 (Calculus I, IAI M1 900-1, IAI MTH 901) with a grade of C or better. Recommend concurrent enrollment in MTH 201 (Calculus II, IAI M1 900-2, IAI MTH 902).
Typically offered: Fall, Spring, Summer

PHY 202 - General Physics II-Electricity and Magnetism (5 Credits)
4 lecture, 2 lab, 6 total contact hours
Introduces electricity and magnetism using calculus. Topics include charge; electric field and potential; resistance, capacitance, and inductance; DC and AC circuits; magnetic fields; laws of Gauss, Ampere and Faraday; Maxwell's equations and electromagnetic waves; geometric optics, lenses and mirrors, interference and diffraction, and polarization. For students in chemistry, engineering, mathematics and physics. IAI PHY 912 Prerequisite: MTH 201 and PHY 201 with grades of C or better.
Typically offered: Fall, Spring, Summer

PHY 203 - General Physics III-Thermal and Quantum Physics (5 Credits)
4 lecture, 2 lab, 6 total contact hours
Introduces thermodynamics and quantum physics. Topics include temperature and heat, ideal gas law, first and second law of thermodynamics, kinetic theory of gasses, entropy, relativity, quantization, the atom, solid state physics and conduction, nuclear and elementary particle physics. For students in chemistry, engineering, mathematics and physics. IAI PHY 915A Prerequisite: MTH 201 and PHY 201 with grades of C or better.
Typically offered: Spring

Political Science (PSC)

PSC 101 - American Politics and Government (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Focuses on political involvement, elections, campaigns, interest groups, Congress, courts, the presidency and the constitution. Discusses how our government runs, as well as current political controversies. Utilizes political figures as guest speakers and offers opportunities for political participation, especially in election year. IAI S5 900
Typically offered: Fall, Spring, Summer

PSC 210 - Topics in Political Science (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Studies selected problems or topics in political science. The exact content and instructional methodology will vary from semester to semester depending on the material to be studied. A syllabus or course outline containing additional information will be available with pre-registration materials each time that the course is offered. This course may be taken from one to six credit hours.
Typically offered: Fall, Spring

PSC 220 - State and Local Government in the U.S. (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Examines state and local governments including their powers, organization, functions, development, politics and contemporary issues/problems. IAI S5 902
Typically offered: Spring

PSC 250 - Comparative Politics (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Explores the politics of selected countries in Africa, Asia, Europe, Latin America and/or the Middle East. Examines economic, social and political patterns and problems in different nations. IAI S5 905
World Culture and Diversity
Typically offered: Spring

PSC 260 - Middle Eastern Politics (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Examines political, social, economic, military, religious and terrorist forces in the Middle East. Investigates the politics of specific countries in the area.
World Culture and Diversity
Typically offered: Fall

PSC 270 - Global Politics (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Uses role playing to study how foreign policy is made. Explores human problems such as populations, food and energy on a global dimension. Examines international bodies, including the United Nations, and explores how nations interact. IAI S5 904
World Culture and Diversity
Typically offered: Fall, Spring

PSC 280 - Non-Western Comparative Politics (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Examines the political systems of selected non-Western countries, including common governmental problems, causes of political instability and revolution and techniques of political analysis. IAI S5 906N
World Culture and Diversity
Typically offered: Fall

Psychology (PSY)

PSY 101 - Introduction to Psychology (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Investigates human and animal behavior with an emphasis on the scientific nature of contemporary and classic psychological investigation. Emphasizes psychological theories, principles, and research applications. Introduces the divisions of the American Psychological Association. References biological processes, sensation, perception, learning, memory, thinking, emotional life, mental disorders, intelligence, aptitude, personality, development daily life and everyday problems. IAI S6 900
World Culture and Diversity
Typically offered: Fall, Spring, Summer

PSY 106 - Practical Psychology (1-3 Credits)
1 - 3 lecture, 1 - 3 total contact hours
Presents a practical application of the psychological principles that lead to efficiency of learning, adjustment, motivation, communication and attitudes in everyday life and classroom situations. This course does not meet Social Science requirements; it is a Group 6 elective.
Typically offered: Fall, Spring, Summer

PSY 107 - Humanistic Psychology:Personal Growth (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Focuses on each individual's potential and emphasizes the importance of personal growth and self-actualization. Major theories of humanistic psychology, change and psychosocial adjustment are presented. Aspects of behavior, life experience and personality that affect your overall sense of well-being and happiness will be examined. Students will explore how meaning and purpose contribute to a personally fulfilling life.

PSY 108 - Topics in Psychology (2-3 Credits)
2 - 3 lecture, 0 lab, 2 - 3 total contact hours
Provides specific topic seminars which allow each student the opportunity to examine current issues, such as career development, developing self-esteem, happiness, or personal development. The focus is on the analysis and organization of experiences for personal and positive growth. The exact content and instructional methodology will vary semester to semester depending on the material to be studied. A syllabus or course outline containing additional information will be available with pre-registration materials each time that the course is offered. This course may be repeated twice to a maximum of six credit hours.

PSY 210 - Introduction to Research in Psychology (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Investigates the basics of scientific inquiry, corresponding methods and the various statistical and mathematical analyses used by psychologists. Explores ethical issues, data collection procedures, empirically-based literature as well as observational, correlational, experimental, quasi-experimental methods and introduces Structural Equation Modeling. Introduces SPSS and delineates the differences between basic and applied research. Prerequisite: PSY 101 or consent of instructor.
Typically offered: Spring

PSY 216 - Child Psychology I (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Investigates the psychological development of the child from conception through pubescence. Emphasizes the theories, principles and empirically derived findings of Child Psychology. Explores cultural and/or international contexts as well as normative and non-normative patterns of development. Discusses mortality during childhood. Integrates the various child psychopathologies. IAI S6 903
Typically offered: Fall, Spring, Summer

PSY 217 - Adolescent Psychology (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Investigates the psychological development of humans from late childhood through adolescence and young adulthood. Emphasizes the theories, principles and empirically derived findings of Adolescence Psychology. Explores cultural and/or international contexts as well as normative and non-normative patterns of development. Discusses mortality during adolescence. Integrates the study of adolescent psychopathologies. IAI S6 904
Typically offered: Fall, Spring, Summer

PSY 218 - Adult Psychology (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Investigates the biological, physical, social and psychological development of humans from young adulthood to death and through grief and bereavement. Emphasizes theories, principles and empirically derived findings of Adult Psychology. Addresses cultural and/or international contexts as well as normative and non-normative patterns of development. Discusses mortality throughout adulthood and adult psychopathologies. IAI S6 905
Typically offered: Fall, Spring

PSY 220 - Biological Basis of Behavior (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Investigates the biological, psychological and clinical approaches to understanding the nervous system as the basis of behavior. Explores perception, memory, motivation, learning and emotion from a biological perspective. Emphasizes the theories, principles and empirically derived findings of Biological Psychology. Prerequisite: PSY 101 or consent of instructor.
Typically offered: Fall, Spring

PSY 225 - Theories of Personality (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Investigates the determining factors and dynamics of human personality including major historical and contemporary perspectives of personality. Emphasizes the theories, principles and empirically derived findings of personality. Evaluates assessment measures, their construction and appropriate use. Explores cultural and/or international contexts of personality. Prerequisite: PSY 101 or consent of instructor.
Typically offered: Fall, Spring

PSY 228 - Psychology of Human Development (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Investigates the psychological development of humans from conception to death, through grief and bereavement. Investigates the theories, empirically derived science and principles of developmental researchers and developmental psychologists. Emphasizes cultural and/or international contexts as well as normative and non-normative patterns of development. Discusses mortality throughout the life-span. Integrates developmental psychopathologies. IAI S6 902
Typically offered: Fall, Spring, Summer

PSY 230 - Abnormal Psychology (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Investigates the classification, diagnosis, assessment, etiology and treatment of the mental disorders. Evaluates the theories, principles and empirically derived findings concerning the biological, psychological, social and cultural influences of abnormal behaviors. Introduces the Diagnostic and Statistical Manual of Mental Disorders (DSM) and its coding criteria, as well as the World Health Organization's statistical classifications (ICD). Explores the principles and practices of clinical psychologists and clinical researchers. IAI PSY 905 Prerequisite: PSY 101 or consent of instructor.
Typically offered: Fall, Spring, Summer

PSY 245 - Industrial/Organizational Psychology (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Investigates organizational behavior. Explores theories, principles, applications and empirically derived findings of Industrial/Organizational Psychology. Emphasizes classic and contemporary leadership and motivation theories. Discusses structure and management practices; individual and work group behavior; employee culture and employer culture; and organizational conflict and resolution. Addresses international perspectives. Prerequisite: PSY 101 or consent of instructor.
Typically offered: Fall, Spring, Summer

PSY 251 - African American Psychology (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Explores African American psychology and introduces the integration of both African and American influences on the origins of African American psychology. Investigates the theories and principles from African American researchers and African American psychologists. Discusses lifespan development, life-events, health, mortality, education, work, career, religion, neighborhoods, communities, psychopathologies, and social interactions. Recognizes the contributions of African American Psychology to general psychology. Recommended prerequisite: PSY 101 is preferred but not required.
World Culture and Diversity
Typically offered: Fall

Radiologic Technology (RAD)

RAD 101 - Introduction to Radiologic Technology (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides an introduction to the field of radiologic technology, health care delivery systems, issues related to the health care environment, importance of effective communication, team-building, professionalism, and diversity in the health care center. The student will develop basic skills in radiography and patient care essential for providing quality health care. Professional development and lifelong learning will also be emphasized by introducing the students to various organization and agencies within radiography and other health care systems. NOTE: Students must be admitted in the RAD program to register for this course.
Typically offered: Summer

RAD 102 - Radiologic Procedures I (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Examines radiologic anatomy and examination procedures for the upper appendicular skeleton, the chest and the abdomen. The basic concepts of radiologic positioning are presented. Students are taught techniques and procedures related to reading various types of technique charts and are able to program X-ray units for correct exposure for designated examination. NOTE: Students must be admitted into the RAD program to register for this course. Prerequisite: RAD 101 with a grade of C or better. Corequisite: RAD 103 and RAD 107.
Typically offered: Fall

RAD 103 - Radiologic Principles I (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Introduces students to the principles of radiography and factors controlling radiologic production and radiation protection. Radiation production, prime factors, producing qualitative radiographic images; and types of image receptors are presented. Prerequisite: RAD 101 with a C or better. Corequisite: RAD 102 and RAD 107.
Typically offered: Fall

RAD 105 - Radiologic Procedures II (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Examines the radiologic anatomy and examination procedures for the lower extremity and bony thorax. Students are taught to read various types of technique charts and program X-ray units for correct exposure for these examinations. Prerequisite: RAD 102 and RAD 103 with grades of C or better. Corequisite: RAD 106 and RAD 108.
Typically offered: Spring

RAD 106 - Radiologic Principles II (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides supervised environment to develop the necessary skills needed to evaluate the radiologic image and provide appropriate recommendations for improving the diagnostic quality of the radiograph. Introduces digital imaging. Prerequisite: RAD 102, RAD 103 and RAD 107 with grades of C or better. Corequisite: RAD 105 and RAD 108.
Typically offered: Spring

RAD 107 - Radiologic Clinical Practicum I (2 Credits)
0 lecture, 20 lab, 20 total contact hours
Applies principles of radiologic positioning under the supervision of qualified registered American Registry of Radiologic Technologists (ARRT) technologist. Emphasizes appendicular and axial skeleton. Includes principles of exposure, image quality and other associated professional skills. Placement of clinical assignment by program coordinator. NOTE: All health requirements, as mandated by clinical sites, must be completed prior to placement in a clinical rotation. Prerequisite: RAD 101 with a grade of C or better. Corequisite: RAD 102 and RAD 103.
Typically offered: Fall

RAD 108 - Radiologic Clinical Practicum II (2 Credits)
0 lecture, 20 lab, 20 total contact hours
Applies principles of radiologic positioning under the supervision of registered American Registry of Radiologic Technologists (ARRT) technologist. Continued emphasis on contrasted procedures, appendicular and axial skeleton, the chest and bony thorax, and other radiologic skills. Prerequisite: RAD 102, RAD 103, and RAD 107 with grades of C or better. Corequisite: RAD 105 and RAD 106.
Typically offered: Spring

RAD 215 - Principles and Procedures in Mammography (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides a detailed overview of the history, equipment and radiographic principles and their application to mammography. Course focuses on breast anatomy and physiology, mammographic techniques, positioning skills, critical equipment features, image receptor characteristics, and image quality management. Successful completion of this course along with RAD 216 will meet the required contact hours of documented learning required by the American Registry of Radiologic Technologist (ARRT). This course is offered every spring and fall. Prerequisite: Admission into the Mammography certificate program.
Typically offered: Fall, Spring

RAD 216 - Mammography Externship (1 Credit)
0 lecture, 8 lab, 0 clinical/other, 8 total contact hours
Provides students with clinical experience to gain required skills to perform quality breast imaging mammograms in a health care setting under the direct supervision of a qualified practitioner. Emphasis on principles and procedures of mammography. Presented as a preceptor clinical experience according to ARRT guidelines. Prerequisite: Prior or concurrent enrollment in RAD 215.
Typically offered: Fall, Spring

RAD 221 - Radiologic Procedures III (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Covers the radiologic anatomy and examination procedures for the vertebral column, the cranium, paranasal sinuses and facial bones. Includes instruction of how to read various types of technique charts and program X-ray units for correct exposure for these examinations. Prerequisite: RAD 225 with a grade of C or better. Corequisite: RAD 223, RAD 224, and RAD 228.
Typically offered: Fall

RAD 223 - Advanced Radiologic Principles (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Provides a continuation of topics covered in RAD 106 such as the principles involved in diagnostic X-ray production and radiographic and fluoroscopic equipment. Topics include X-ray production, electromagnetic interactions with matter, X-ray devices, equipment circuitry, targets and filtration. Covers the application of physical concepts as related to X-ray image production. Prerequisite: RAD 106 and RAD 225 with grades of C or better. Corequisite: RAD 221, RAD 224, and RAD 228.
Typically offered: Fall

RAD 224 - Radiobiology (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Provides an in-depth study of radiation biology, radiation regulations and radiation measurements. Somatic and genetic effects of ionizing radiation are presented. Radiation safety practices for staff and patients/clients are covered. Prerequisite: RAD 106 and RAD 225 with grades of C or better. Corequisite: RAD 221, RAD 223 and RAD 228.
Typically offered: Fall

RAD 225 - Radiologic Clinical Practicum III (3 Credits)
0 lecture, 12 lab, 12 total contact hours
Provides a continuation of radiologic experiences with emphasis on radiographic positioning of the cranial and facial bones; trauma; surgery and mobile procedures; and observation of radiologic interpretation. Placement of clinical assignment by program coordinator. Prerequisite: RAD 108 with a grade of C or better.
Typically offered: Summer

RAD 228 - Digital Imaging (2 Credits)
1.5 lecture, 1 lab, 2.5 total contact hours
Provides an in-depth investigation of digital medical imaging including digital radiography systems, image acquisition, exposure principles, image processing and post-processing, image display and quality control, and picture archiving communication systems. The student will gain a comprehensive understanding of computer system components and function, digital imaging systems (including comparison with film/screen systems), radiation safety principles, cassette-based compared with cassetteless systems, exposure factor and processing selections, quality assurance and acceptance standards. Prerequisite: RAD 106 with a grade of C or better. Corequisite: RAD 223 and RAD 224.
Typically offered: Fall

RAD 236 - Radiologic Pathology (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Examines the etiology and processes of trauma and disease. Emphasis placed on radiologic pathology of body systems. Prerequisite: RAD 224 and RAD 240 with grades of C or better. Corequisite: RAD 238, RAD 239, and RAD 251.
Typically offered: Spring

RAD 238 - Sectional Anatomy For Imaging (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Studies human anatomical structures in multiple imaging planes. Reviews images created by MRI and Computed Tomography, as well as gross anatomical images. Focuses primarily on identification of normal anatomy, but includes some pathological conditions. Discusses the role of MRI in physiological imaging. Prerequisitie: BIO 261 with a grade of C or better.
Typically offered: Fall, Spring

RAD 239 - Radiologic Special Procedures (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Emphasizes routine special procedures including cardiovascular imaging, neuroradiography, reproductive system radiography and special studies of the viscera. The course details portable and surgical radiography, pediatric and geriatric radiography and related imaging modalities such as mammography, computed tomography, magnetic resonance imaging, ultrasonography and neuroradiography. Includes interventional radiology procedures such as stent-coil placement and venous access placement. The student will be able to participate and function in each of these different special procedures. Prerequisite: RAD 221 with a grade of C or better. Corequisite: RAD 236, RAD 238, and RAD 251.
Typically offered: Spring

RAD 240 - Radiologic Clinical Practicum IV (3 Credits)
0 lecture, 30 lab, 30 total contact hours
Covers advanced clinical experiences with guided practice of special procedures. Experience with mobile units at bedside and in the operating room and emergency room. Placement of clinical assignment by the program coordinator. (Formerly RAD 210). Prerequisite: RAD 225 with a grade of C or better. Corequisite: RAD 221, RAD 223, and RAD 224.
Typically offered: Fall

RAD 251 - Radiologic Clinical Practicum V (3 Credits)
0 lecture, 30 lab, 30 total contact hours
Provides a continuation of advanced clinical experiences with guided practice of special procedures. Experience with mobile units at bedside, in the operating room and in the emergency room. Placement of clinical assignment by the program coordinator. Prerequisite: RAD 223, RAD 224, RAD 228, and RAD 240 with grades of C or better. Corequisite: RAD 236, RAD 238, and RAD 239.
Typically offered: Spring

RAD 258 - Radiologic Seminar (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Provides a review and discussion of radiologic principles, techniques and methods, and film critique. Emphasis is placed on the interdependence of theory and principles in preparation for the American Registry for Radiologic Technology (ARRT) examination and resume writing and job search skills. Prerequisite: RAD 223, RAD 224, and RAD 228 and RAD 240 with grades of C or better. Corequisite: RAD 236, RAD 238, RAD 239, and RAD 251.
Typically offered: Spring

RAD 260 - CT Procedures/Patient Care (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides detailed coverage of procedures for CT imaging. Procedures include, but are not limited to. indications fo the procedures, patient education, preparation, orientation and positioning, patient history and assessment, contrast media usage, scout image, selectable scan parameters, filming and archiving of the images. CT procedures will be taught for differentiation of specific structures, patient symptomology and pathology. CT imaging studies will be reviewed for quality, anatomy and pathology. CT procedures vary from facility to facility and normally are dependent on the preferences of the radiologists. Prerequisite: Admission into the Computerized Tomography (CT) program and prior or concurrent enrollment in RAD 238 with a grade of C or better. Corequisite: RAD 261.

RAD 261 - CT Principles I (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Imparts the fundamentals of the physical principles and instrumentation utilized in computer tomography (CT). Reviews the hitstorical development and evolution of CT. Physics topics covered include CT beam attenuation, linear attenuation coefficeints, tissue characteristics and Hounsfield number application. Explains data acquisiiton and manipulation techniques, image reconstructon algorithms such as filtered back-projection. Explores CT systems and operations with full coverage of radiographic tube configuration, collimator design and functions, detector type, characteristics and functions of the CT computer and array processor. Examines CT image processing and display from data acquisition through post-processing and archiving. Explains patient factors related to other elements affecting image quality, artifact production and reduction, and image communication. Prerequisite: Admission into the Computerized Tomography (CT) program is required or consent of instructor, and prior or concurrent enrollment in RAD 238 with a grade of C or better. Corequisite: RAD 260.

RAD 262 - CT Principles II (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Covers part two of the physical principles and instrumentation involved in computerized tomography (CT). Physics topics covered include the characteristics of x-radiation, CT beam attenuation, linear attenuation coefficients, tissue characteristics and quality control procedures. Also includes an overview of the pinciples of radiation protection including the responsiblilites of the radiographer for patients, personnel and the public. Incorporates radiation health and safety requirements of federal and state regulatory agencies, accreditation agencies and health care organizations. Prerequisite: RAD 238, RAD 260 and RAD 261 with grades of C or better.

RAD 263 - CT Clinical Education I (3 Credits)
0 lecture, 12 lab, 12 total contact hours
Applies principles of computed tomography (CT) procedures under the supervision of a qualified registered American Registry of Radiologic Technologists (ARRT) technologist. Emphasizes principles of exposure, image quality, patient care, radiation safety and other associated professional skills. Placement of clinical assignment will be done by the program coordinator. NOTE: American Heart Association Cardiopulmonary Resuscitation (CPR) certification and required Healthstream modules must be completed prior to placement in an clinical roatation. Prerequisite: RAD 238, RAD 260 and RAD 261 with grades of C or better. Corequisite: RAD 262.

RAD 264 - CT Clinical Education II (3 Credits)
0 lecture, 12 lab, 12 total contact hours
Continues to apply the principles of computed tomography (CT) procedures under the supervision of a qualifiied registered American Registry of Radiologic Technologists (ARRT) technologist. Emphasizes principles of exposure, image quality, patient care, radiation safety and other associated professional skills. Placement of clinical assignment will be done by the program coordinator. NOTE: American Heart Assocaitoin Cardiopulmonary (CPR) certification and required Healthstream modules must be completed prior to placement in a clinical rotation. Prerequisite: RAD 262 and RAD 263 with grades of C or better.

RAD 270 - MRI Patient Care and Procedures (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides detailed coverage of procedures for MR imaging. Procedures include, but are not lmiited to, indications for the procedure, patient education, preparation, orientation and positioning, patient history and assessment, contrast media usage, scout image, selectable scan parameters, filming and archiving of the images. MR procedures will be taught for differentiation of specific structures, patient symptomology and pathology. MR images studied wil be reviewed for quality, anatomy and pathology. MR procedures vary from facility to facility and normally are dependent on the preferences of the radiologists. Corequisite: RAD 271 Prerequisite: Admission into the Magnetic Resonance Imaging program, and prior or concurrent enrollment in RAD 238 with a grade of C or better.
Typically offered: Fall

RAD 271 - MRI Principles I (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Reviews the historical development and foundation of magnetic resonance imaging (MRI). Explains basic principles and fundamentals classically and through quantum physics. Explores MRI systems and interactions of the magnetic fields within the systems. Discusses advantages of MRI imaging through contrast characteristics exploring the important mechanisms that affect image contrast in MRI. Explains resonance, interaction of radiofrequency, gradients including data collection and image formation. Explores hardware required for production of MRI to include magnet, radiofrequency source, image processor, computer system including MRI ancillary equipment. Discusses the artifacts causes and explores solutions to avoid artifact appearance. Corequisite: RAD 270 Prerequisite: Admission to the Magnetic Resonance Imaging (MRI) program is required or consent of instructor, and prior or concurrent enrollment in RAD 238 with a grade of C or better.
Typically offered: Fall

RAD 272 - MRI Principles II (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Continues the physical principles and instrumentation involved in Magnetic Resonance Imaging (MRI). Explains data acquisition and processing, sequence parameters and imaging options. Explains quality control and quality assurance principles in magnetic resonance imaging. Incorporates magnetic resonance health and safety regulations of federal and state regulatory agencies, accreditation agencies and health care organizations. Prerequisite: RAD 271 with a grade of C or better.
Typically offered: Spring

RAD 273 - MRI Clinical Education I (3 Credits)
0 lecture, 12 lab, 12 total contact hours
Applies principles of magnetic resonance imaging procedures under the supervision of a qualified registered American Registry of Radiologic Technologist (ARRT) technologist. Emphasizes principles of exposure, image quality, patient care, radiation safety and other associated professional skills. Placement of clinical assignment by program coordinator. Corequisite: RAD 272 Prerequisite: RAD 270 and RAD 271 with grades of C or better.
Typically offered: Spring

RAD 274 - MRI Clinical Education II (3 Credits)
0 lecture, 12 lab, 12 total contact hours
Continues to apply the principles of magnetic resonance imaging procedures under the supervision of a qualified registered American Registry of Radiologic Technologists (ARRT) technologist. Emphasizes the principles of exposure, image quality, patient care, radiation safety and other associated professional skills. Placement of clinical assignment by program coordinator. NOTE: American Heart Association Cardiopulmonary Resuscitation (CPR) certification must be completed prior to placement in a clinical rotation. Prerequisite: RAD 272 and RAD 273 with grades of C or better.
Typically offered: Summer

Respiratory Care Science (RCS)

RCS 101 - Fundamentals of Respiratory Care (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides students with a study of theories and modalities utilized in delivering, monitoring, and evaluating basic respiratory therapeutics to patients with compromised respiratory function in various healthcare settings. Covers aspects of artificial ventilation, arterial blood gas analysis, lung volume diagnostics, and hyperinflation intervention in patient scenarios. Prerequisite: Admission into the RCS Degree program.

RCS 102 - Respiratory Care Instrumentation I (3 Credits)
2 lecture, 3 lab, 5 total contact hours
Imparts the fundamental knowledge regarding the design, function, and operation of respiratory care equipment. Covers patient communication, medical gas principles, medical gas supply equipment, medical gas therapy equipment, humidity and aerosol therapy equipment, hyperinflation therapy equipment, airway secretion clearance equipment, hyperinflation therapy equipment, emergency resuscitation equipment, physiological measurement and monitoring equipment, and principles of equipment sterilization and processing. Prerequisite: Admission into the RCS program.

RCS 103 - Pharmacology for Respiratory Care (2 Credits)
2 lecture, 2 total contact hours
Provides a comprehensive study of pharmacology principles. Covers receptor theory, clinical applications of medications, and historical analysis of first-generation medications. Examines current medication trends and recommendations. Prerequisite: Admission into the RCS degree program.

RCS 104 - Cardioplumonary Anatomy and Physiology (2 Credits)
2 lecture, 2 total contact hours
Delivers an in-depth study of human anatomy and physiology regarding the cardiac, respiratory, and renal systems. Presents clinical application of the cardiac, respiratory, and renal system anatomy and physiology. Prerequisite: Admission into the RCS degree program.

RCS 105 - Respiratory Care Clinical Practice I (3 Credits)
0 lecture, 6 lab, 6 total contact hours
Prepares the student for direct patient care to be performed in the hospital setting and in addition to more advanced courses. Introduces clinical skills including vital signs, chest assessment, infection control, aerosolized medication delivery, oxygen therapy, hyperinflation therapy, airway clearance, arterial blood gas sampling, care of artificial airways, and tracheal suctioning. All procedures are performed under direct/close supervision. Prerequisite: Admission into the RCS degree program.

RCS 106 - Cardiopulmonary Disease (3 Credits)
3 lecture, 3 total contact hours
Offers lecture and case presentations related to pathophysiology, etiology, symptoms, diagnosis and treatment of selected pulmonary disease entities, cardiac diseases, sleep disorders, neurologic disease processes and occupationally acquired disease entities as they relate to respiratory function. Clinical Simulation software utilized for clinical patient assessment, diagnostic data gathering, and treatment. Prerequisite: RCS 101, 102, 103, 104 and 105 with grades of C or better.

RCS 107 - Critical Care Concepts (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides the student with an in-depth study of selected respiratory care techniques with an emphasis on the care of critically ill patients. Explores critical skills and knowledge of mechanical ventilation, bedside diagnostic techniques, patient monitoring, and rehabilitation in the critical care setting. Prerequisite: RCS 101,102,103,104 and 105 with grades of C or better.

RCS 108 - Respiratory Care Instrumentation II (3 Credits)
2 lecture, 3 lab, 5 total contact hours
Offers a comprehensive study of advanced equipment and technology utilized in the critical care and blood gas lab settings. Details hardware for hemodynamic monitoring, supplemental oxygen administration, noninvasive monitoring, blood gas measurement, quality control and assurance and mechanical ventilator concepts. Prerequisite: RCS 101, 102, 103, 104 and 105 with grades of C or better.

RCS 109 - Respiratory Care Clinical Practice II (3 Credits)
0 lecture, 16 lab, 16 total contact hours
Provides patient care opportunity to perform clinical procedures and interact with patients and professional personnel in a healthcare institution under the supervision of a respiratory therapist. Students gain direct patient care experience as presented in medical/surgical and pediatric clinical situations. Preparatory instruction is provided for mechanical ventilation and other critical care procedures. Prerequisite: RCS 101, 102, 103, 104 and 105 with grades of C or better.

RCS 210 - Respiratory Care Clinical Practice III (3 Credits)
0 lecture, 16 lab, 16 total contact hours
Affords a supervised clinical education experience in which the student organizes and administers advanced respiratory therapeutics on assigned patients in adult critical care. Procedures include arterial blood gas procurement and measurement, bedside physiologic monitoring, airway care, as well as setup, monitoring and maintenance of mechanical ventilators. Prerequisite: RCS 106, 107, 108 and 109 with grades of C or better.

RCS 211 - Neonatal/Pediatric Respiratory Care (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Provides the respiratory care student with introductory knowledge concerning fetal, newborn, and pediatric development, assessment, and management. Lecture discussions include the anatomy and physiology of the respiratory and cardiac systems, basic respiratory therapy procedures and equipment, and mechanical ventilation strategies. In-class and online lectures as well as laboratory activities will be used to convey material. Prerequisite: RCS 106, 107, 108 and 109 with grades of C or better.

RCS 212 - Mechanical Ventilation (3 Credits)
2 lecture, 4 lab, 6 total contact hours
Offers an in-depth study of specific ventilators used in adult ventilation to include traditional and proposed ventilator classification, method of operation, parameter interrelationships and ventilator-patient monitoring. Focuses on analysis of several contemporary volume, time, pressure, and flow-cycled ventilators. Prerequisite: RCS 210 and 211 with grades of C or better.

RCS 213 - Respiratory Care Clinical Practice IV (3 Credits)
0 lecture, 16 lab, 16 total contact hours
Presents advanced clinical education in the intensive care setting in which the student monitors and administers critical care therapeutics on assigned patients in the adult, pediatric, and neonatal intensive care units. Prerequisite: RCS 210 and 211 with grades of C or better.

RCS 214 - Respiratory Care Rehabilitation/Diagnostics (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Offers an introduction to the medical and ethical issues of outpatient pulmonary rehabilitation services and diagnostics procedures. Explores the impact of legislation, regulations, and Medicare law. Discusses the respiratory therapist's role in patient assessment, treatment plan, home care, and development of outcome measures for the chronic respiratory disease patient. Addresses reimbursement of outpatient pulmonary rehabilitation services. Prerequisite: RCS 210 and 211 with grades of C or better.

RCS 215 - Respiratory Care Research (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Provides an introduction to applied experimental design, research ethics, and data analysis focusing on the respiratory care profession. Each step of the research process will be explored from development of a personal research hypothesis and research design to the steps taken in order to submit a research study for approval. Prerequisite: RCS 212, 213 and 214 with grades of C or better.

RCS 216 - Respiratory Care ICU Internship (3 Credits)
0 lecture, 16 lab, 16 total contact hours
Offers the student internships in the intensive care setting by providing direct patient care and administering critical care therapeutics. Emphasizes analysis and clinical application of advanced ventilator care of patients along with patient care diagnostics and management in the adult ICU. Prerequisite: RCS 212, 213 and 214 with grades of C or better.

Sign Language (SGN)

SGN 101 - American Sign Language I (4 Credits)
4 lecture, 4 total contact hours
Introduces the student to American Sign Language with emphasis on comprehension and production of basic language functions, grammatical structures and level-appropriate vocabulary. Presents information about the Deaf community and culturally appropriate behaviors. Designed for students with no previous experience in American Sign Language.
Typically offered: Fall, Spring, Summer

SGN 102 - American Sign Language II (4 Credits)
4 lecture, 4 total contact hours
Reviews American Sign Language vocabulary, language functions and grammatical structures presented in SGN 101. Integrates material previously presented in SGN 101 and further develops language comprehension and production skills at increasing levels of complexity. Applies increasingly complex grammatical structures to language functions. Presents and integrates additional information about Deaf culture into language usage. Prerequisite: SGN 101 with a grade of C or better, or consent of department chairperson
Typically offered: Fall, Spring, Summer

SGN 103 - Fingerspelling and Numbering Systems in ASL (3 Credits)
3 lecture, 3 total contact hours
Provides instruction in the rules of fingerspelling and numbering systems in American Sign Language. Students will have opportunities for practice in the development of expressive and receptive skills at increasing levels of complexity. Receptive skill development focuses on whole words and numbers in isolation, as well as reading fingerspelling and numbers embedded in signed sentences. Expressive skill development focuses on accuracy, fluency, clarity and speed. Prerequisite: SGN 101 with a grade of C or better, or consent of department chair
Typically offered: Fall, Spring, Summer

SGN 201 - American Sign Language III (4 Credits)
4 lecture, 4 total contact hours
Reviews American Sign Language vocabulary, language functions and grammatical structures presented in SGN 102 and focuses on grammatical and lexical expansion with emphasis on idiomatic usage and sociocultural communicative functions. Prerequisite: SGN 102 with a grade of C or better, or consent of department chair
Typically offered: Fall, Spring, Summer

SGN 202 - American Sign Language IV (3 Credits)
3 lecture, 3 total contact hours
Reviews American Sign Language grammatical structures and lexical items presented in SGN 201. Focuses on conversational practice to develop expressive and receptive facility with the language. Includes culturally significant topics and interaction with members of the deaf community. IAI H1 900 Prerequisite: SGN 201 with a grade of C or better, or consent of department chair.
Typically offered: Fall, Spring, Summer

SGN 205 - American Sign Language V (3 Credits)
3 lecture, 3 total contact hours
Provides an examination of the grammatical features of American Sign Language. Includes a contrastive analysis of English and ASL syntax and semantics. Further develops ASL discourse skills. Emphasizes ASL storytelling, analyzing, retelling, and translating ASL discourse. Designed for students interested or currently enrolled in the Sign Language Interpreting program. Prerequisite: SGN 202 with a grade of C or better, or consent of department chair.
Typically offered: Fall, Spring, Summer

SGN 210 - American Sign Language: Cultural Perspective (4 Credits)
4 lecture, 4 total contact hours
Examines the history of American Sign Language, the emergence of the deaf community as a linguistic and cultural group, the cultural norms, values, traditions and rules of social behavior of the deaf community, minority dynamics and cross cultural interactions. No knowledge of American SIgn Language is required for this course; it is taught in ASL with an interpreter.
World Culture and Diversity
Typically offered: Fall, Spring, Summer

SGN 212 - Introduction to American Sign Language Literature (3 Credits)
3 lecture, 3 total contact hours
Explores American Sign Language literature as an expression of the lives of deaf people in America. Introduces the tradition of the deaf community within historical, social and cultural contexts in works of folklore, nonfiction, fiction, poetry and drama. Designed to increase students' knowledge, skills and appreciation of American Sign Language, deaf culture, and deaf literature. Provides students with an appreciation of the diversity of American culture. Prerequisite: SGN 205 with a grade of B or better, or consent of department chair
Typically offered: Fall, Spring, Summer

Sociology (SOC)

SOC 101 - Introduction to Sociology (3 Credits)
3 lecture, 3 total contact hours
Analysis and description of the structure and dynamics of human society. Application of scientific methods to the observation and analysis of social norms, groups, intergroup relations, social change, social stratification and institutions. IAI S7 900
World Culture and Diversity
Typically offered: Fall, Spring, Summer

SOC 120 - Family in Contemporary Society (3 Credits)
3 lecture, 3 total contact hours
Examines the family as a social institution and as a dynamic interactive system. Topics include courtship, marriage, family systems, parenting, non-traditional forms of the family. IAI S7 902
World Culture and Diversity
Typically offered: Fall, Spring, Summer

SOC 205 - Social Problems (3 Credits)
3 lecture, 3 total contact hours
Analysis of contemporary social problems. Investigation of theories dealing with conformity and deviance, racial and minority group prejudice, crime and delinquency, personality problems, urbanization and fundamental institutional problems due to social change. IAI S7 901
World Culture and Diversity
Typically offered: Fall, Spring, Summer

SOC 215 - Introduction to Social Psychology (3 Credits)
3 lecture, 3 total contact hours
Introduces the methods used to understand, explain and predict how the thoughts, feelings and actions of individuals are influenced by the thoughts and actions of social groups. Investigates how attitudes, beliefs and behaviors are influenced by others within society and how society is influenced by the individual. IAI S8 900
World Culture and Diversity
Typically offered: Spring

SOC 220 - Topics in Social Science (1-6 Credits)
1 - 6 lecture, 1 - 6 total contact hours
Studies selected problems or topics in social science. The exact content and instructional methodology will vary from semester to semester depending on the material to be studied. A syllabus or course outline containing additional information will be available with pre-registration materials each time that the course is offered. This course may be taken from one to six credit hours.

SOC 230 - Sociology of Sex and Gender (3 Credits)
3 lecture, 3 total contact hours
Examines the social processes in society which translate biological differences (sex) between men and women into social and psychological categories or gender roles. Various theories will be considered in an attempt to understand the existence of gender inequality and how the process of socialization influences the proper "place" for men and women in society. Gender roles and power are considered when analyzing the marketplace, politics, marriage and family, or in considering issues such as the feminization of poverty, violence in the home, and male sensitivity. IAI S7 904D
World Culture and Diversity
Typically offered: Fall

SOC 235 - Race and Ethnicity (3 Credits)
3 lecture, 3 total contact hours
Examines differential power relations between racial and ethnic groups. Analyzes the economic, political and cultural structures that produce and reproduce these power differences. Focuses on cultural diversity and various dimensions of prejudice and discrimination including an analysis of racial and ethnic inequality and its origins, conditions under which these forms of inequalities are (re)produced. IAI S7 903D
World Culture and Diversity
Typically offered: Spring

Spanish (SPA)

SPA 101 - Elementary Spanish I (4 Credits)
4 lecture, 4 total contact hours
Develops listening, speaking, reading and writing skills in Spanish. Introduces students to the cultures and people of the Spanish-speaking world. Designed for students with no previous experience in Spanish. All new students who have prior experience with or have taken classes in Spanish should consult with the department for placement before registering for a course. Instructions can be found on the World Languages website. http://goforward.harpercollege.edu/academics/areas/liberal-arts/world-languages/placement-test.php
Typically offered: Fall, Spring, Summer

SPA 102 - Elementary Spanish II (4 Credits)
4 lecture, 4 total contact hours
Continues to develop listening, speaking, reading and writing skills in Spanish. Furthers the introduction to the cultures and people of the Spanish-speaking world. Prerequisite: SPA 101 with a grade of C or better or required placement exam scores. All new students who have prior experience with or have taken classes in Spanish should consult with the department for placement before registering for a course. Instructions can be found on the World Languages website.
Typically offered: Fall, Spring, Summer

SPA 112 - Heritage Spanish I (4 Credits)
4 lecture, 4 total contact hours
Examines the dialectal and sociolinguistic variation present in Spanish-speaking communities in the United States as well as in Spanish-speaking countries. Students will become cognizant of the linguistic strengths they possess, develop a sense of pride in their heritage by studying their language and culture and expand their ability to use Spanish in new applications and contexts. Examines the concept of standard Spanish and explores the situations in which standard and non-standard Spanish should be employed and how to adjust language usage accordingly. This course emphasizes the orthography, pronunciation and lexical expansion in formal Spanish. This course is intended for Hispanic heritage students that comprehend spoken Spanish and may have varying degrees of speaking and writing ability. IAI H1 900
Typically offered: Fall, Spring

SPA 113 - Heritage Spanish II (4 Credits)
4 lecture, 4 total contact hours
Examines the dialectal and sociolinguistic variation present in Spanish-speaking communities in the United States as well as in Spanish-speaking countries. This course is a continuation of SPA 112. Students will become cognizant of the linguistic strengths they possess, develop a sense of pride in their heritage by studying their language and culture and expand their ability to use Spanish in new applications and contexts. Examines the concept of standard Spanish and explores the social situations in which standard and non-standard Spanish should be employed and how to adjust language usage accordingly. This course emphasizes the study of formal grammatical aspects of Spanish. This course is intended for Hispanic heritage students that comprehend spoken Spanish and may have varying degrees of speaking and writing ability. IAI H1 900
Typically offered: Spring

SPA 121 - Spanish for Law Enforcement Officers (3 Credits)
3 lecture, 3 total contact hours
Teaches basic Spanish phrases and questions necessary to carry out specific law enforcement protocols. Students will be able to aid victims and control offenders in potentially dangerous situations involving Hispanics. Discussions cover cross-cultural issues pertinent to relationships between non-Hispanic officers and the Hispanic community members. It is strictly non-grammar based and the focus is on immediate interaction.
Typically offered: Fall, Spring, Summer

SPA 122 - Spanish for Healthcare Professionals (3 Credits)
3 lecture, 3 total contact hours
Teaches basic Spanish phrases and questions necessary to provide medical care and attention to Spanish-speaking patients in medical office settings and in hospitals. In addition to workplace Spanish language, discussions cover cross-cultural issues pertinent to relationships between health care workers and Hispanic community members. Emphasis is placed on enhancing the quality of patient care. It is strictly non-grammar based and the focus is on immediate interaction.
Typically offered: Fall, Spring, Summer

SPA 201 - Intermediate Spanish I (4 Credits)
4 lecture, 4 total contact hours
Further develops reading, writing, speaking and listening skills in Spanish. Students learn more complex structures of Spanish grammar, fine-tune pronunciation, gain more advanced skills in composition, and continue to expand their vocabulary. Attention is given to complexity, accuracy and fluidity. Fosters expanded knowledge of, and appreciation for, the cultural heritage and history of Spanish-speaking areas. Prerequisite: SPA 102 with a grade of C or better or required placement exam scores. All new students who have prior experiecne with or have taken classes in Spanish should consult with the department for placement before registering for a course. Instructions can be found on the World Languages website.
Typically offered: Fall, Spring, Summer

SPA 202 - Intermediate Spanish II (4 Credits)
4 lecture, 4 total contact hours
Provides a crucial bridge between intermediate and advanced language courses. Focuses on a more in-depth study of history, geography, literature and culture of Spanish-speaking people. Includes analysis of daily life and current events. Students practice more complex structures of Spanish grammar, fine-tune pronunciation, gain more advanced skills in composition, and continue to expand their vocabulary. Attention is given to complexity, accuracy and fluency. IAI H1 900 Prerequisite: SPA 201 with a grade of C or better or required placement exam scores. All new students who have prior experiecne with or have taken classes in Spanish should consult with the department for placement before registering for a course. Instructions can be found on the World Languages website.
Typically offered: Fall, Spring, Summer

SPA 205 - Spanish Conversation (3 Credits)
3 lecture, 3 total contact hours
Provides conversational practice beyond the intermediate level and refines spoken Spanish skills to achieve fluency of expression. Includes the study of the culture of Spanish-speaking people and critical analysis of daily life and current events. Atten is given to complexity, accuracy and fluency. Not available for credit to native speakers of Spanish. Prerequisite: SPA 202 with a grade of C or better or required placement exam scores. All new students who have prior experiecne with or have taken classes in Spanish should consult with the department for placement before registering for a course. Instructions can be found on the World Languages website.
World Culture and Diversity
Typically offered: Fall

SPA 210 - Introduction to Spanish Literature (3 Credits)
3 lecture, 3 total contact hours
Provides an introduction to literature from the Spanish-speaking world and exposes students to a variety of literary genres and eras. Focuses on the development of more complex use of the language and addresses speaking, listening, writing and reading. Attention is given to complexity, accuracy and fluency. IAI H3 917 Prerequisite: SPA 202 with a grade of C or better or required placement exam scores. All new students who have prior experience with, or have taken classes in Spanish should consult with the department for placement before registering for a course. Instructions can be found on the World Languages website.
World Culture and Diversity
Typically offered: Spring

Speech/Communication Arts (SPE)

SPE 101 - Fundamentals of Speech Communication (3 Credits)
3 lecture, 3 total contact hours
Theory and practice of oral communications. Development of poise, confidence and skill in speech organization and delivery. Emphasis on frequent speaking, development of standards of criticism and selection and organization of material. IAI C2 900
Typically offered: Fall, Spring, Summer

SPE 102 - Professional Communication (3 Credits)
3 lecture, 3 total contact hours
Provides students with advanced practice of oral communication in public speaking and communication theory. Topics included are: an examination of informative, persuasive and special occasion speech preparation and delivery; effective use of visual aids; analysis of communication events and the effects of communication messages. Prerequisite: SPE 101 with a grade of C or better, or consent of instructo
Typically offered: Fall, Spring

SPE 107 - Oral Interpretation (3 Credits)
3 lecture, 3 total contact hours
Provides the student an opportunity to select, prepare and perform various types of literature. Emphasizes the use of body and voice in oral reading. IAI TA 916
Typically offered: Fall, Spring, Summer

SPE 180 - Applied Forensics I (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Provides practical experience in the preparation of public speeches, oral interpretation programs, acting scenes, group performances and/or limited preparation speaking situations for public presentation in forensics/speech competition.
Typically offered: Fall, Spring, Summer

SPE 181 - Applied Forensics II (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Continues SPE 180. Provides practical experience in the preparation of public speeches, oral interpretation programs, acting scenes, group performances and/or limited preparation speaking situations for public presentation in forensics/speech competition. Prerequisite: SPE 180 with a grade of C or better
Typically offered: Fall, Spring, Summer

SPE 182 - Applied Forensics III (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Continues SPE 181. Provides practical experience in the preparation of public speeches, oral interpretation programs, acting scenes, group performances and/or limited preparation speaking situations for public presentation in forensics/speech competition. Prerequisite: SPE 181 with a grade of C or better
Typically offered: Fall, Spring, Summer

SPE 183 - Applied Forensics IV (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Continues SPE 182. Provides practical experience in the preparation of public speeches, oral interpretation programs, acting scenes, group performances and/or limited preparation speaking situations for public presentation in forensics/speech competition. Prerequisite: SPE 182 with a grade of C or better
Typically offered: Fall, Spring, Summer

SPE 200 - Interpersonal Communication (3 Credits)
3 lecture, 3 total contact hours
Explores one-to-one, face-to-face communication through experience, theory and skill application. Examines communication in family, work and social contexts. Stresses satisfying individual needs, functioning in appropriate roles, resolving conflicts and communicating effectively. IAI MC 901
Typically offered: Fall, Spring

SPE 205 - Small Group Communication/Team Work (3 Credits)
3 lecture, 3 total contact hours
Studies the theory and practice of effective small group communication processes. This is a skills-oriented course that engages students in a variety of group discussions and exercises. Provides practical experience in group communication, as well as providing a theoretical base in small group communication. Emphasizes the power of groups as well as the connection between being an effective speaker/listener in small group situations. Includes consideration of leadership, motivation, decision-making, problem-solving and conflict management. IAI MC 902
Typically offered: Spring

SPE 210 - Persuasive Communication and Argumentation (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Examines principles of reasoning, critical thinking, argumentation, and advocacy and their expression in a variety of media (social, political, print, web, public, visual, debate…). Students will develop an understanding of how arguments function to influence attitudes, values, and behaviors in our public culture with an emphasis on the nature of argument, proofs, evidence, constructing persuasive messages, fallacies of argument, and the use of logical reasoning. IAI MC 905
Typically offered: Fall, Spring, Summer

SPE 215 - Intercultural Communication (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Examines how culture influences the communication process including values, beliefs, norms, linguistic and nonverbal differences between cultures, cultural bias, ethnocentrism, globalization and cultural adjustment. Reviews major theories of intercultural communication and the practical approaches to communicating more effectively with persons from other cultures. Allows students to consider the role that communication has in creating, maintaining or challenging cultural assumptions, norms, rules and power structures. Explores how diverse underlying cultural orientations and patterns influence communication behaviors within and between cultures. Students will learn to evaluate their own and others' communicative behaviors from a culturally sensitive perspective. IAI MC 904
World Culture and Diversity
Typically offered: Fall, Spring, Summer

Supply Chain Management (SCM)

SCM 101 - Supply Chain Management (3 Credits)
3 lecture, 3 total contact hours
Introduces Supply Chain Management (SCM) and the end-to-end (E2E) business processes necessary to achieve market and financial value, as well as competitive advantage. SCM is achieved by an organization proactively adopting initiatives to move suppliers and customers into collaborative relationships for mutual gain. Attention is focused on the fundamentals including customer service, fulfillment, demand planning and forecasting, inventory control, procurement, storeroom/warehousing, production control/operations, and physical distributuion/logistics. All topics focus on techonology, financial trends and career paths within the field.
Start Smart
Typically offered: Fall, Spring

SCM 120 - Production Control (3 Credits)
3 lecture, 3 total contact hours
Describes the development, scope and objectives of production control. Prerequisite: SCM 101 or consent of program coordinator.
Typically offered: Spring

SCM 122 - Inventory Management (3 Credits)
3 lecture, 3 total contact hours
Provides an overview of the dynamics of managing inventory within the constantly evolving supply chain environment. Topics include forecasting inventory requirements based upon coustomer and consumer demand, understanding inventory management as related to production plannning, modeling various scenarios based upon demand information, and recognizing the various processes and technology used in inventory management today. Prerequisite: SCM 101, or consent of program coordinator.
Typically offered: Spring, Summer

SCM 123 - Transportation (3 Credits)
3 lecture, 3 total contact hours
Reviews the framework fo the transportation/distribution component of Logistics as part of the broader supply chain, and how it is a key component of the strategy and customer service for an organization. Provides an overview of various transportation systems and the impact on costs and services that each system provides. Examines the different types of modes and routings, and the impacts of regulatory and environmental decisions. Reviews the operational aspects of the transportation function, responsibilities for the key job functions associated with transportation, and overall trends within the industry. Prerequisite: SCM 101 or consent of coordinator.
Typically offered: Fall, Spring, Summer

SCM 124 - Warehouse Operations (3 Credits)
3 lecture, 3 total contact hours
Provides an overview of the movement of goods within a warehouse environment, including the overall concepts of material handling, warehouse management and packaging. Covers topics such as warehouse automation, containerization, palletization, conveyor systems, racking, kitting, picking and sorting. Reviews concepts such as the strategic nature of distribution centers versus traditional warehousing, and the overall impact of packaging beyond just product protection. Discusses the overall organizational structure and impact of warehouse operations as part of the broader supply chain. Prerequisite: SCM 101, or consent of program coordinator.
Typically offered: Fall, Spring

SCM 125 - Procurement (3 Credits)
3 lecture, 3 total contact hours
Covers the overall function of procurement and its importance within the Supply Chain. Focuses on the strategic role of procurement within the organization and how it directly contributes to the financial results of the business. Discusses overall roles and responsibilities within the function including preparation for and analysis of supplier bids and quotations, processes for purchase orders and contracting, inventory management and materials planning, supplier relationship management and performance management, total cost of ownership review, business continuity planning and social and ethical responsibility. Prerequisite: SCM 101 or consent of program coordinator.
Typically offered: Spring, Summer

SCM 126 - Demand Planning (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides an introduction and overview of the demand planning function as part of the broader supply chain. Topics covered include objectives of the function, the benefits of effective demand planning in an organization, the process of forecasting demand, the various types of demand, rules for ordering and optimizing of orders, the concept of economic order quantity and mitigating stock out risks, differences in demand distribution, sales and operations planning (S&OP), MRP and JIT. Prerequisite: SCM 101, or consent of program coorciantor.
Typically offered: Fall, Spring

SCM 127 - Customer Service and Fulfillment (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Provides an introduction and overview of customer service and order fulfillment as part of the overall end-to-end (E2E) supply chain of an organization. Topics covered include 1) the overarching supply chain and logistics infrastructure, strategy and terminology; 2) the design of the service value streeam to meet customer and consumer needs; 3) the order management and the fulfillment cycle and how it drives success and revenue growth; 4) the role of the customer service professional and the importance of planning, strategy, and performance measures; and 5) the increasing role of technology to enable a customer-centric approach. Prerequisite: SCM 101, or consent of the program coordinator.
Typically offered: Fall, Spring

SCM 226 - Advanced Planning and Integration (3 Credits)
3 lecture, 3 total contact hours
Focuses on the advanced concepts of planning, processes and technology to ensure a successful supply chain. Covers systems-based Material Requirements Planning (MRP) as part of the broader Enterprise Requirements Planning (ERP) framework and explores problem solving and complex solutions to supply chian integration needs. Focuses on leveraging systems to reduce inventories, set priorities, initiate orders, initiate purchase requirements, develop master production schedules, and optimize the total cost structure within the supply chain. Also explores the concepts of Total Quality Management (TQM) and various elements of LEAN production and processes. Prerequisite: SCM 101 and SCM 120, or consent of program coordinator.

SCM 228 - Logistics Design and Strategy (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides a comprehensive view of existing logistics practices and strategies within a global economy. Explores ways to create a competitive advantage through logistics principles and network design models, and outlines an approach for integrating logistics as a core competency within an organization's supply chain strategy. Prerequisite: SCM 101 and SCM 123, or consent of program coordinator.

SCM 259 - Sourcing and Supply Management (3 Credits)
3 lecture, 3 total contact hours
Takes the study of the procurement function to the next level following the completion of SCM 125. Focuses on a deeper look at the total cost of ownership (TCO), the overall processes and details behind strategic sourcing, the function of category management, more complex negotation skills, the components of supplier relationship management (SRM), and the leadership function and role of the procurement/supply management professional. Prerequisite: SCM 101 and SCM 125, or consent of program coordinator.
Typically offered: Spring

SCM 281 - Topics in Supply Chain Management (1-3 Credits)
1 - 3 lecture, 1 - 3 total contact hours
Studies selected problems or topics in supply chain management. The exact content and instructional methodology will vary semester to semester depending on the material to be studied. A syllabus or course outline containing additional information will be available with pre-registration materials each time that the course is offered. This course may be repeated to a maximum of six credit hours. Prerequisite: Six (6) hours of SCM coursework or consent of program coodinator.

Surgical Technology (SUR)

SUR 100 - Orientation to the Profession (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Introduces the student to the role of the surgical technologist and the professional practice of surgical technology. Emphasizes professionalism, organizations, credentialing and employability skills such as effective communication and teamwork. Students will investigate ethical, moral and legal issues, and hazard preparations, risk management and organizational relationships within the healthcare facility.
Typically offered: Fall, Spring

SUR 101 - Surgical Pharmacology (2 Credits)
2 lecture, 2 total contact hours
This course provides an in-depth exploration of pharmacological principles relevant to surgical technology, with a focus on intraoperative solutions, medications, and anesthesia. Students will examine drug classifications, mechanisms of action, and safe handling practices specific to the surgical environment. Emphasis is placed on the preparation, administration, and monitoring of medications used during surgical procedures, as well as the roles and responsibilities of the surgical technologist in supporting medication and anesthesia delivery. Terminology, abbreviations, dosage calculation, and weights and measures associated with medication administration are presented. This course equips students with the knowledge and skills necessary to ensure patient safety and effective surgical outcomes. Prerequisite: Admission into the Surgical Technology program.
Typically offered: Fall

SUR 102 - Fundamentals of Surgical Technology (4 Credits)
4 lecture, 4 total contact hours
Presents fundamental principles and skills necessary for the use of aseptic technique in surgical procedures. Emphasizes the role of the surgical technologist within all phases of surgical case management including scrubbing, assistant circulating duties, safety considerations and preparation for emergency situations. Examines the use instrumentation, supplies, equipment utilized for surgical procedures and equipment sterilization and maintenance. Reviews wound care and hemostasis within relation to surgical care and the surgical patient. Prerequisite: Entrance into the Surgical Technology Program.
Typically offered: Fall

SUR 103 - Fundamentals/Surgical Technology Laboratory (2 Credits)
4 lab, 4 total contact hours
Applies knowledge gained in didactic coursework within SUR 102 (Fundamentals of Surgical Technology.) Students will apply theoretical knowledge in the performance of tasks performed by surgical technologists in perioperative care. Emphasizes the surgical technologist's role and skills in all phases of surgical case management. Prerequisite: SUR 102 with grade of C or better.
Typically offered: Spring

SUR 104 - Surgical Procedures I (3 Credits)
3 lecture, 3 total contact hours
Examines specialized surgical procedures in relation to relevant anatomy, physiology, pathology, microbiology, supplies, equipment, and instrumentation needed for various surgical procedures. Reviews factors unique to surgical procedures including surgical hazards encountered, Content covers diagnostic testing, general, obstetric, and gynecological surgical procedures. Focuses on all phases of peri-operative care. Prerequisite: SUR 102 with a grade of C or better.
Typically offered: Spring

SUR 105 - Clinical Applications I (2 Credits)
0 lecture, 6 lab, 6 total contact hours
Applies the principles and practice of basic surgical procedures during clinical rotations in affiliated hospitals. Introduces the students to the scrub role in the operating room as Observation role, Second Scrub and First Scrub. Beginner level study includes the application of basic skills learned in the laboratory setting with an emphasis on General, Obstetric, Gynecological and Genitourinary surgical procedures. Focuses on knowledge, skills and professionalism necessary for perioperative case management. Prerequisite: SUR 103, SUR 104, and SUR 106 with grades of C or better.
Typically offered: Summer

SUR 106 - Intermediate Surgical Procedures (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Examines specialized surgical procedures in relation to relevant anatomy, physiology, pathology, microbiology, diagnostic testing, supplies, equipment, and instrumentation needed for various surgical procedures. Reviews factors unique to surgical procedures including surgical hazards encountered. Content covers minimally invasive, genitourinary, and orthopedic surgical procedures. Focuses on all phases of peri-operative care. Prerequisite: SUR 102 with a grade of C or better.
Typically offered: Spring

SUR 108 - Core Concepts in Sterile Processing and Distribution (4 Credits)
4 lecture, 0 lab, 4 total contact hours
This course provides a comprehensive introduction to the fundamental concepts and practices in sterile processing and distribution within healthcare facilities. Students will explore critical topics such as infection control, sterilization methods, decontamination processes, surgical instrumentation, equipment maintenance, and supply chain management. Emphasis is placed on industry standards, regulatory compliance, and best practices to ensure the safe and effective handling of medical equipment. Develops the foundational skills and knowledge required to excel in sterile processing and distribution roles. Aids students in preparation for industry certification, job search and post-graduate employment. Corequisite: SUR 109

SUR 109 - Core Concepts/Sterile Processing/Distribution Lab (2 Credits)
0 lecture, 4 lab, 4 total contact hours
Provides supervised lab training applying the primary responsibilities of a sterile processing technician. With an emphasis on surgical instrumentation identification, preparation, distribution and storage, surgical and hospital supplies and equipment; quality assurance; and inventory management. Teaches students how to minimize contagions and maintain healthy hospitals, while enforcing decontamination standards in a variety of clinical settings. Corequisite: SUR 108

SUR 110 - Fundamentals of Sterile Processing (3 Credits)
3 lecture, 3 total contact hours
Introduces the primary responsibilities of a sterile processing technician. Emphasizes decontamination, disinfection, preparation, sterilization, storage and distribution of instruments, supplies and equipment, quality assurance and inventory management. Prerequisite: Entry into the Surgical Technology Program (Limited Enrollment)
Typically offered: Fall

SUR 111 - Fundamentals/Sterile Processing Laboratory (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Provides supervised lab training applying the primary responsibilities of a sterile processing technician. Emphasizes identification, preparation, distribution and storage of instruments, supplies and equipment; quality assurance, and inventory management. Teaches students how to minimize contagions and maintain healthy hospitals while enforcing decontamination standards in a variety of clinical settings. Prerequisite: Entry into the Surgical Technology Program (Limited Enrollment)
Typically offered: Fall

SUR 112 - Introduction to Microbiology for Sterile Processing Technicians (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Introduces basic microbiology for Sterile Processing Technicians, emphasizing aspects related to preparation of instruments and devices used in the surgical field. Studies the structure and properties of bacteria, fungi, viruses, and other microbes including historical microbiology, infectious process, infection control, and the role of the immune system in health and disease. Teaches students how to identify contagions and maintain healthy hospitals. A grade of "C" or above must be earned in courses to meet requirements for enrollment in subsequent courses.

SUR 113 - Clinical Application for Sterile Processing (3 Credits)
0 lecture, 9 lab, 9 total contact hours
Applies the primary responsibilities of a sterile processing technician with supervised training in a clinical setting. Emphasizing preparation, distribution and storage of instruments, supplies and equipment; quality assurance; and inventory management. Students minimize contagions and maintain healthy hospitals, while enforcing decontamination standards in a variety of clinical settings. Prerequisite: SUR 108 and SUR 109 with grades of C or better OR SUR 110, SUR 111, and SUR 114 with grades of C or better.
Typically offered: Fall, Spring, Summer

SUR 114 - Surgical Tech Pathway to Sterile Processing Certificate (2 Credits)
2 lecture, 0 lab, 2 total contact hours
This course bridges the curriculum between the Surgical Technology and Sterile Processing and Distribution programs. It provides Surgical Technology students with the knowledge and skills necessary to complete the Sterile Processing Certificate Program. Students will explore advanced sterile processing techniques and workflow integration within healthcare settings. Through hands-on practice and theoretical instruction, students will learn to manage sterile processing responsibilities, align with industry standards, and support patient safety across surgical and central sterile environments. Develops the foundational skills and knowledge required to excel in sterile processing and distribution roles. Aids students in preparation for industry certification, job search and post-graduate employment. Successful completion prepares students for clinical rotation, professional certification and equips them to excel in sterile processing roles. Prerequisite: SUR 110 and SUR 111 with a C or better.

SUR 202 - Clinical Applications II (5 Credits)
0 lecture, 15 lab, 15 total contact hours
Applies the principles and practice of basic to complex surgical procedures during clinical rotations in affiliated hospitals. Continues familiarizing the students to the scrub role in the operating room as Observation role, Second Scrub and First Scrub. Intermediate level study includes the application of skills learned in the laboratory setting and SUR 105 (Clinical Applications I) with an emphasis on Ophthalmic, Otorhinolaryngology; Oral and Maxillofacial; Plastic and Reconstructive; Orthopedic and Neuro surgical procedures. Focuses on knowledge, skills and professional ism necessary for perioperative case management. Prerequisite: SUR 104, SUR 105, and SUR 106 with grades of C or better.
Typically offered: Fall

SUR 211 - Complex Surgical Procedures (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Examines specialized surgical procedures in relation to relevant anatomy, physiology, pathology, microbiology, diagnostic testing, supplies, equipment, and instrumentation needed for various surgical procedures. Reviews factors unique to surgical procedures including surgical hazards encountered, Content covers otorhinolaryngological, and plastic and reconstructive surgical procedures. Focuses on all phases of peri-operative care. Prerequisite: SUR 104, SUR 105 and SUR 106 with grades of C or better.
Typically offered: Fall

SUR 213 - Surgical Procedures IV (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Examines specialized surgical procedures in relation to relevant anatomy, physiology, pathology, microbiology, diagnostic testing, supplies, equipment, and instrumentation needed for various surgical procedures. Reviews factors unique to surgical procedures including surgical hazards encountered. Content covers ophthalmic, oral and maxillofacial, and neuro surgical procedures. Focuses on all phases of peri-operative care. Prerequisite: SUR 104, SUR 105, SUR 106 with a grade of C or better.
Typically offered: Fall

SUR 214 - Advanced Clinical Application (4 Credits)
0 lecture, 12 lab, 12 total contact hours
Applies the principles and practice of basic to major complex surgical procedures during clinical rotations in affiliated hospitals. Applies all knowledge learned while assisting the surgical team with the daily pre, peri and post-operative duties of a surgical technologist. Students will progress through increasingly complex first and second scrub roles in surgical procedures as they move toward entry-level surgical technologist abilities. Intermediate level study includes the application of skills learned in the laboratory setting, SUR 105 Clinical Applications I and SUR 202 Clinical Applications II with an emphasis on Peripheral Vascular, Cardiothoracic, Trauma and Gender Reassignment surgical procedures. Focuses on knowledge, skills and professionalism necessary for perioperative case management. Prerequisite: SUR 202, SUR 211, SUR 213 with grades of C or better.
Typically offered: Spring

SUR 215 - Surgical Procedures V (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Examines specialized surgical procedures in relation to relevant anatomy, physiology, pathology, microbiology, diagnostic testing, supplies, equipment, and instrumentation needed for various surgical procedures. Reviews factors unique to surgical procedures including surgical hazards encountered. Content covers peripheral vascular, cardiovascular, thoracic, gender reassignment and trauma surgical procedures. Focuses on all phases of peri-operative care. Prerequisite: SUR 211 and SUR 213 with grades of C or better.
Typically offered: Spring

SUR 220 - Surgical Technology Professional Seminar (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Continues to develop student's understanding of Surgical Technology scope of practice and professional code of ethics. Prepares students to sit for the National Board of Surgical Technology and Surgical Assisting (NBSTSA) certification exam. Aids students in preparation for job search and post-graduate employment. Prerequisite: SUR 211 and SUR 213 with a grade of C or better.
Typically offered: Spring

Theatre/Communication Arts (THE)

THE 111 - Introduction to Theatre (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Introduces theatre as a fine and performing art. Includes study and analysis of historical, social, aesthetic and technical aspects of traditional and contemporary theatrical/dramatic expression. IAI F1 907 World Culture and Diversity
Typically offered: Fall, Spring, Summer

THE 121 - Ethnic Traditions in American Theatre (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Examines how cultural perspective and minority expression shape theatre in the United States by exploring the roots of change in traditional theatre and the role of community in the formation of theatre companies. Specific focus will be give to African American theatre, Asian American theatre, Latino theatre, Native American theatre, feminist theatre, gay and lesbian theatre, political theatre, performance art and post-modernism as well as international trends. IAI F1 909D (formerly SPE 121)

THE 190 - Applied Theatre Practicum I (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Provides practical experience in directing, acting, costuming, scene design, lighting and repertory. (formerly SPE 190) Prerequisite: Consent of instructor
Typically offered: Fall, Spring, Summer

THE 191 - Applied Theatre Practicum II (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Continues THE 190. Provides practical experience in directing, costuming, scene design, lighting and repertory. (formerly SPE 191) Prerequisite: THE 190 with a grade of C or better and consent of instructor.
Typically offered: Fall, Spring, Summer

THE 192 - Applied Theatre Practicum III (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Continues THE 191. Provides practical experience in directing, acting, costuming, scene design, lighting and repertory. (formerly SPE 192) Prerequisite: THE 191 with a grade of C or better and consent of instructor.
Typically offered: Fall, Spring, Summer

THE 193 - Applied Theatre Practicum IV (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Continues THE 192. Provides practical experience in directing, acting, costuming, scene design, lighting and repertory. (formerly SPE 193)
Typically offered: Fall, Spring, Summer

THE 212 - Acting I (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Methods used in the art of acting; stress on practical acting situations. IAI TA 914 (formerly SPE 212)
Typically offered: Fall, Spring

THE 213 - Acting II (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Continues the development of acting skills introduced in THE 212. Helps the student develop a believable character through play analysis and scene study. Introduces the student to acting styles. (formerly SPE 213) Prerquisite: THE 212 with a grade of C or better and consent of instructor.
Typically offered: Fall, Spring

Web Development (WEB)

WEB 110 - Internet Fundamentals (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Introduces the fundamental skills and knowledge needed to use the Internet and build basic web pages. Teaches introductory functions of the web, Internet communications and project management concepts. Explores social networking tools and the use of multimedia on the web.Discusses industry career opportunities.
Typically offered: Fall, Spring, Summer

WEB 140 - Mobile Apps (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Introduces students who are new to coding, to build mobile apps for Apple mobile devices using the language and tools, Swift and Xcode. With MobileMakerEdu, students will build an app, analyze errors in code, and problem solve. Students complete the class with a portfolio of apps and collection of skills that align with a professional workplace.
Typically offered: Fall, Spring

WEB 150 - Web Foundations (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Introduces the foundational skills needed to create web pages utilizing Hyper Text Markup Language (HTML), Cascading Style Sheets (CSS), and an overview of the JavaScript language. Includes web design best practices, web site hosting, Internet protocols, graphics, media and security. Students utilize the skills learned to create a business-oriented web site project. IAI MC 923 Recommended preparation: WEB 110 or CIS 106 or GRA 101 are strongly recommended courses in preparation prior to WEB 150.
Typically offered: Fall, Spring

WEB 170 - Web UX Fundamentals and Prototyping (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides the understanding of UX (user experience) and UI (user interface) fundamentals, and the needs for user research, journey maps, personas, usability testing, and workflow mapping. Emphasizes techniques of sketching to develop digital wireframe to create an interactive prototype of a business-oriented website. Uses current prototyping tools to match industry standards. Prerequisite: WEB 110 or WEB 150 with a grade of C or better, or concurrent enrollment in WEB150.
Typically offered: Fall, Spring

WEB 180 - Web Multimedia (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Introduces the nature and attributes of motion graphics in this project-based course. Through hands-on activities, students will learn to generate, manipulate and embed still and motion graphics for their website design and other media delivery systems. Prerequisite: WEB 150 with a grade of C or better.

WEB 190 - Web Authoring Tools (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Utilizes current industry frontend frameworks and advanced Cascading Style Sheets (CSS) techniques to create responsive websites. This course is project-based and students demonstrate skills by creating a business-oriented website. Prerequisite: WEB 150 with a grade of C or better.
Typically offered: Fall

WEB 200 - Web Scripting Foundations (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Introduces the JavaScript programming language and its capabilities for developing user-centric websites in this project-based course. Through hands-on exercises, students will create web pages with interactive components and dynamically update data. Students demonstrate skills by creating a business-oriented web site. Prerequisite: WEB 150 with a grade of C or better AND math placement in MTH 101 or higher. Click here for Math placement information: https://www.harpercollege.edu/testing/mathplacement.php
Typically offered: Fall, Spring

WEB 210 - Web Accessibility (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides the student with the foundation in developing usable and accessible web sites. Topics include Section 508 Accessibility compliance, the Web Accessibility Initiative guidelines, usability testing, and applications that test for adherence to coding syntax and accessibility recommendations. Prerequisite: WEB 150 with a grade of C or better.
Typically offered: Spring

WEB 235 - Interactive Scripting (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Builds on web development skills learned in WEB 200. Uses advanced JavaScript techniques which include current libraries and frameworks to create highly functional web pages. Students utilize the advanced skills learned to create a business-oriented web site of their choice and design. Prerequisite: WEB 200 with a grade of C or better.
Typically offered: Spring

WEB 240 - E-Commerce Strategies and Technologies (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides the student with a foundation in the fundamentals of electronic commerce development. Software security, payment systems, promotion, and support strategies are considered. Website design and navigation considerations for shopability, sales, shipping/costs, etc., and marketing touch points are introduced to understand search engine optimization (SEO). Ad words, social media/email marketing and tools such as Google analytics, customer conversion, are understood. Identifying top ecommerce platforms and understanding the pros and cons are explored. Understanding basic web skills and WordPress/WooCommerce is necessary. Prerequisite: GRA 145 and WEB 150 with grades of C or better. This course is only offered in the fall term.
Typically offered: Fall

WEB 250 - Server-Side Scripting (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Provides an introduction to server-side scripting and web data access using a currently popular server application platform and database. Includes variables, control structures, functions, arrays, files, and databases. Students utilize the advanced skills taught to create a business-oriented data-driven web application that uses data query language to access and update information. This course is only offered in spring. Prerequisite: CIS 143 and either CIS 106 or WEB 200 with grades of C or better.
Typically offered: Spring

WEB 285 - Topics in Web Development (1-6 Credits)
1 - 3 lecture, 0 - 6 lab, 1 - 9 total contact hours
Studies selected topics in the web design and development field. The specific course content will vary depending on industry alignment and the material to be studied. A syllabus or course outline containing additional information will be available each time the course is offered. This course may be repeated up to a maximum of 6 credit hours.

WEB 299 - Web Design Capstone (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Develops an understanding of industry expectations of a portfolio and interview skills. Provides hands-on experience to showcase their web design and development work along with creating self-branding assets. Communication strategies will be taught through mock presentations and interviews that demonstrate skills of many programs requirements. Previous work will be reviewed and critiqued for portfolio use. Prerequisite: WEB 200 with a grade of C or better.
Typically offered: Spring

Welding Technology (WLD)

WLD 110 - Welding I (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Covers fundamentals of oxyacetylene welding theory and practices, and beginning electric welding. Includes arc welding and gas welding, brazing and cutting in the horizontal position.
Typically offered: Fall, Spring, Summer

WLD 210 - Welding II (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Covers advanced welding theory and practice in arc welding. Provides experience in MIG and TIG (Heliarc) techniques. Includes an introduction to strength of weld testing. NOTE: The prerequisite will be waived for Fall 2020. Prerequisite: WLD 110 with a grade of C or better, or consent of instructor.
Typically offered: Fall, Spring, Summer

WLD 211 - Welding III (4 Credits)
2 lecture, 4 lab, 6 total contact hours
Covers advanced welding theory and extensive practice in major arc welding process. Provides experience in advanced GMAW (gas metal arc welding), FCAW (flux cored arc welding), GTAW (gas tungsten arc welding), and other arc welding techniques. Includes plasma arc and air carbon arc cutting. NOTE: The prerequisite will be waived for Fall 2020. Prerequisite: WLD 210 with a grade of C or better, or consent of coordinator.
Typically offered: Fall, Spring, Summer

WLD 212 - Welding IV (4 Credits)
2 lecture, 4 lab, 6 total contact hours
Covers advanced out-of-position and multi-pass arc welding including GMAW (gas metal arc welding), SMAW (shielded metal arc welding), and GTAW (gas tungsten arc welding). Emphasizes working from blueprints and development of welding skills necessary to pass welder qualification tests. Students must pass guided bend tests to become "certified welders" in accordance with AWS (American Welding Society) D1.1 Structural Welding Code. NOTE: The prerequisite will be waived for Fall 2020. Prerequisite: WLD 211 with a grade of C or better, or consent of coordinator.
Typically offered: Fall, Spring, Summer

WLD 225 - Advanced Blueprint Reading (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Teaches the student to become proficient in reading more complex welding blueprints. The student will learn the symbols specific to welding blueprints. Emphasizes developing the ability to transfer the two-dimensional print to the actual three-dimensional object. NOTE: The prerequisite will be waived for Fall 2020. Prerequisite: MFT 134 and WLD 210 with grades of C or better.
Typically offered: Spring

WLD 240 - Cutting Processes (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Allows the student an opportunity to gain proficiency in all major industrial arc, oxy-fuel, and mechanical cutting processes-manual, semi-automatic and automatic. Processes include Plasma Arc, Air Carbon Arc, Shielded Metal Arc, Exothermic, and Oxy-Fuel cutting; optical tracers; and CNC controls. NOTE: The prerequisite will be waived for Fall 2020. Prerequisite: WLD 210 with a grade of C or better.
Typically offered: Fall, Spring, Summer

WLD 245 - Welding Fabrication I (4 Credits)
2 lecture, 4 lab, 6 total contact hours
Provides hands-on experience constructing welding projects employing arc, oxy-acetylene, gas metal arc (mig), gas tungsten arc (tig), or a combination of these welding processes using a welding blueprint as a guide. NOTE: The prerequisite will be waived for Fall 2020. Prerequisite: WLD 211 and WLD 240 with grades of C or better.
Typically offered: Fall, Spring

WLD 246 - Pre-Pipe Welding (4 Credits)
2 lecture, 4 lab, 6 total contact hours
Covers advanced skills in shielded metal arc welding using the E6010 and E 7018 electrodes on mild steel plate up to 3/8″ thickness in all positions. NOTE: The prerequisite will be waived for Fall 2020. Prerequisite: WLD 210 with a grade of C or better.
Typically offered: Fall, Spring, Summer

WLD 248 - Basic Pipe Welding (4 Credits)
2 lecture, 4 lab, 6 total contact hours
Covers techniques of basic pipe fitting, use of 90's, T's, flanges, valves, take offs, use of pipe blueprints, sketches, templates, and uphill welding techniques on pipe. Perform SMAW pipe welding with E6010 and E7018 electrodes in all positions. NOTE: The prerequisite will be waived for Fall 2020. Prerequisite: WLD 210 and WLD 246 with grades of C or better.
Typically offered: Fall, Spring, Summer

WLD 249 - Applied Welding Theory (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Provides both lab and classroom experience to cover the basic theory of all major welding processes. Covers shielded metal arc welding, gas tungsten arc welding, flux core arc welding, submerged arc welding, plasma arc welding and oxyacetylene welding. NOTE: The prerequisite will be waived for Fall 2020. Prerequisite: WLD 210 with a grade of C or better.
Typically offered: Fall

WLD 250 - Welding Fabrication II (4 Credits)
2 lecture, 4 lab, 6 total contact hours
Prepares the students to construct welding projects employing arc, oxyacetylene, gas metal arc (MIG), gas tungsten arc (TIG), or any combination of these welding processes using a welding blueprint as a guide. Covers advanced fabrication techniques including rolling, forming and bending. NOTE: The prerequisite will be waived for Fall 2020. Prerequisite: WLD 211 and WLD 245 with grades of C or better.
Typically offered: Fall, Spring

WLD 253 - Welding Power Sources (3 Credits)
1 lecture, 4 lab, 5 total contact hours
Familiarizes the student with the difference between types of welding power sources. The student will learn through lab experiences the proper set-up and fine-tuning techniques which will result in a quality weld. Covers selection, use, troubleshooting and maintenance of major welding equipment. Prerequisite: WLD 210 with a grade of C or better.
Typically offered: Spring

WLD 260 - Arc Welder Qualification (4 Credits)
1 lecture, 6 lab, 7 total contact hours
Helps the student attain arc (SMAW) welder qualification (certification) as required by many employers. This certification will meet the requirements of AWS (American Welding Society) D1.1 Structural Welding Code. Upon successful completion of the certification exam, the student will be given a copy of their test results (Welding Procedure Qualification.) NOTE: The prerequisite will be waived for Fall 2020. Prerequisite: WLD 210 with a grade of C or better.
Typically offered: Fall, Spring, Summer

WLD 261 - Mig Welder Qualification (4 Credits)
1 lecture, 6 lab, 7 total contact hours
Helps the student attain Mig (GMAW) welder qualification (certification) as required by many employers. This certification will meet the requirements of AWS (American Welding Society) D1.1 Structural Welding Code. Upon successful completion of the certification exam, the student will be given a copy of their test results (Welding Procedure Qualification.) Prerequisite: WLD 210 with a grade of C or better.
Typically offered: Fall, Spring, Summer

WLD 285 - Topics in Welding Technology (1-6 Credits)
1 - 6 lecture, 0 - 3 lab, 1 - 9 total contact hours
Examines selected problems or topics in welding technology. The specific course content and instructional methodology will vary each semester offered depending on the material presented. A syllabus containing specific topic information will be available in the division office with pre-registration materials each time the course is offered. This course may be repeated to a maximum of 6 credit hours. Prerequisite: Consent of instructor

CPE Allied Health (LAH)

LAH 0008 - Pharmacy Technician (3.5 Credits)
3.5 lecture, 3.5 total contact hours

LAH 0009 - Online Pharmacy Technician (4.5 Credits)
4.5 lecture, 4.5 total contact hours
This online course prepares you to work under a registered pharmacist in hospitals, home infusion pharmacies, community pharmacies, or other healthcare settings. Learn Federal law, medications, aseptic techniques, calculations, and everyday pharmacy operations. Prepares you for the Pharmacy Technician Certification Board (PTCB) exam. Textbook, exam preparation materials and fees for one sitting of the PTCB exam included. Approved for funding by the Workforce Innovation and Opportunity Act for qualified WIOA candidates, under O*Net code 29.2052. Must be 18 years of age at time of enrollment.

LAH 0010 - Phlebotomy Refresher (1.5 Credits)
1.5 lecture, 1.5 total contact hours
Refresh or learn new blood draw skills using a variety of blood collection methods. Topics: venous samples, vacuum collection devices, capillary skin punctures, order of draw, locating difficult veins, butterfly needles, and special considerations. Receive training in infection prevention, proper patient identification, and labeling of specimens. Practice venipuncture procedures on practice models, fellow students and volunteers. This 20-hour course is designed for healthcare professionals looking to improve technique or learn new phlebotomy skills, or those currently employed in healthcare seeking phlebotomy skills. This course does not qualify students to take the NHA phlebotomy certification exam.

LAH 0011 - Dental Assisting (3.5 Credits)
3.5 lecture, 3.5 total contact hours
Prepare to become a dental assistant in this online 12-week program. Topics include anatomy and physiology, infection control, imaging, and patient care. You will learn your role in supporting dentists and dental hygienists in a rapidly growing industry. All materials are mailed to your home once you register. See harpercollegece.com/dental for more information and to register.

LAH 0245 - Spanish for the Health Care Provider (0.1-900 Credits)
0 - 900 lecture, 0 - 900 lab, 0 - 900 clinical/other, 0 - 900 total contact hours
Learn the basics of Spanish in health care setting by attending this 30-hour program. Taught by a health care professional with more than 10 years of experience in the language, you will start with an introduction into the Hispanic culture. From there, you will be in introduced to the formulation of sentences that will apply to general health care settings, progressing into individualized areas. Included in this program will be dialogs for different settings, such as dental, health care reception, nursing, radiology pharmacy, therapies and more! Learn how to obtain a health history, as well as appropriate interaction with various family members. At the end of this program, you are provided with a laminated translation sheet that will help in your everyday practice!

LAH 8011 - Online Pharmacy Technician (4.5 Credits)
4.5 lecture, 4.5 total contact hours
Prepares you to work under a registered pharmacist in hospitals, home infusion pharmacies, community pharmacies, or other healthcare settings. Learn Federal law, medications, aseptic techniques, calculations, and everyday pharmacy operations. Prepares you for the Pharmacy Technician Certification Board (PTCB) exam. Textbook, exam preparation materials and fees for one sitting of the PTCB exam included. Approved for funding by the Workforce Innovation and Opportunity Act for qualified WIOA candidates, under O*Net code 29.2052. Must be 18 years of age at time of enrollment.
Typically offered: Fall, Spring, Summer

LAH 8012 - Pharmacy Technician Training Program (3 Credits)
2.5 lecture, 1 lab, 3.5 total contact hours
Prepares students to work under the supervision of a pharmacist. The course will focus on the foundational principles and concepts for successful participation in the pharmaceutical field. Topics include medications, federal requirements, patient safety, quality assurance, order entry, and order processing.
Typically offered: Fall, Spring, Summer

LAH 8100 - Activity Director (2 Credits)
1.5 lecture, 1 lab, 2.5 total contact hours
Provides instruction to students to meet the 36-hour IDPH requirement for activity directors, activity aides/assistants, and others involved with long-term care residents. Instructs participants on how to develop unique programming to meet the recreational needs of residents with Alzheimer's disease and related dementias, intellectual disabilities, and serious mental illness.
Typically offered: Fall, Spring, Summer

LAH 8300 - Covid-19 Contact Tracing (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Provides students with the tools and resources needed to become a COVID-19 Contact Tracer. Delivers instructions through the online learning platform. Completes a new module each week. Prepares students to engage in contact tracing upon successful completion of all course modules. Requires students to achieve a passing grade on the post-test evaluation. Complies with all Center for Disease Control COVID-19 contact tracing guidelines.

CPE Animal Groups (LAG)

LAG 8001 - Introduction to Veterinary Assistant (0.5 Credits)
.5 lecture, 0 lab, .5 total contact hours
Learn to communicate effectively with clients and co-workers in the clinical setting and study the significance of ethics in veterinary medicine. Professional competency, basic animal handling and critical thinking when dealing with animals will also be covered. This course is a prerequisite for the Veterinary Assistant course.
Typically offered: Fall, Spring, Summer

LAG 8010 - Veterinary Assistant Training (9 Credits)
8 lecture, 1 lab, 9 total contact hours
Prepares students to work with veterinarians, veterinary technicians, and veterinary assistants to provide medical care as well as facilitate positive customer relationships. Covers how to complete basic office procedures and provide care to companion animals. Examines veterinary practices in a variety of settings through class field trips, in-class labs, and an internship. Provides students with the experiences necessary to become employed in a veterinary clinic, boarding/grooming facility, animal shelter, animal control facility, or pet store.
Typically offered: Fall, Summer

CPE Autodesk (LVV)

LVV 0001 - Autocad: Create/ Present 3D Models (1.5 Credits)
1 lecture, 1 lab, 2 total contact hours
Covers the creation of 3D models to help visualize and present designs. Includes visual styles, model walk-throughs, materials, lighting, and electronic distribution. Students will need some experience using AutoCAD software prior to enrollment.

LVV 8090 - Autocad: Create/Present 3D Models (1.5 Credits)
1 lecture, 1 lab, 2 total contact hours
Covers the creation of 3D models to help visualize and present designs. Includes visual styles, model walk-throughs, materials, lighting, and electronic distribution. Students will need some experience using AutoCAD software prior to enrollment.
Typically offered: Fall, Spring, Summer

LVV 8091 - Introduction to 3D Modeling (1 Credit)
.5 lecture, 1 lab, 0 clinical/other, 1.5 total contact hours
Learn how to operate powerful 3D modeling applications to develop and print a design. Students will be introduced to industry leading software applications, gain knowledge on the interface and modeling toolsets, and build a foundation for working within a 3D modeling application.

LVV 8411 - Autocad Essentials (2 Credits)
1.5 lecture, 1 lab, 2.5 total contact hours
Covers the creation of basic 2D drawings using drawing and editing tools, organization of drawing objects on layers, addition of text and basic dimensions, preparation for plotting and more sophisticated techniques for drawing setup and productivity. Designed for new users of AutoCAD software.
Typically offered: Summer

LVV 8412 - Autocad Intermediate (2 Credits)
1.5 lecture, 1 lab, 2.5 total contact hours
Builds on the basic concepts of the AutoCAD Essentials course. Helps improve productivity when creating, annotating and printing drawings with AutoCAD. Subjects include boundaries, regions, templates, dimensioning, annotation, blocks, layouts, views, sheet sets, tables and an introduction to 3D models. PREREQUISITES: AutoCAD Essentials course recommended.
Typically offered: Fall, Spring, Summer

CPE Business Solutions (LBS)

LBS 0024 - Customer Service/ Order Fulfillment (2 Credits)
2 lecture, 0 lab, 0 clinical/other, 2 total contact hours
Gain an introduction to customer service and order fulfillment as part of the end-to-end (E2E) supply chain management process. Topics include: 1) The overarching supply chain and logistics infrastructure, strategy, and terminology; 2) the design of the service value stream to meet customer and consumer needs; 3) the order management and fulfillment cycle and how it drives success and revenue growth; 4) the role of the customer service professional and the importance of planning, strategy, and performance measures; and 5) the increasing role of technology to enable a customer-centric approach. Materials available at Harper bookstore.

LBS 0026 - Safety Director Credential I (3 Credits)
3 lecture, 0 lab, 0 clinical/other, 3 total contact hours
Safety is everyone's business. This program is intended for transportation employees at all levels including managers, directors, and new hires in areas such as trucking, intermodal, rail, manufacturing, insurance, warehousing, and risk management. Advance your knowledge of the federal motor carrier safety regulations. Understand the responsibilities of all involved including shippers, corporate entities, supervisors, material handlers, and drivers. Learn to correct deficiencies, implement drug and alcohol programs, and address the Comprehensive Safety Analysis initiative. Includes all materials. To earn the Safety Director Credential, you must complete Safety Director Credential I (LBS0026) and Safety Director Credential II (LBS0029). This course is a prerequisite to LBS0029.

LBS 0027 - Emergency Dispatcher I (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Introduces students to the field of emergency services dispatching and provides an overview of its components and responsibilities. Provides the foundation for statewide competency as a public safety telecommunicator as outlined by the Illinois Law Enforcement Training and Standards Board (ILETSB).

LBS 0028 - Emergency Dispatcher 1 (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Introduces students to the field of emergency services dispatching and provides an overview of its components and responsibilities. Provides the foundation for statewide competency as a public safety telecommunicator as outlined by the Illinois Law Enforcement Training and Standards Board (ILETSB).

LBS 0029 - Safety Director Credential II (3 Credits)
3 lecture, 3 total contact hours
Build skills and knowledge in the transportation industry as it relates to insurance, cargo security and securement, vehicle inspection, maintenance, and warehouse material handling and storage. Gain an awareness of liability issues and mitigation strategies, legal weights and dimensions, oversized, overweight routing and permits, theft reduction, proper vehicle inspections and identification of unsafe vehicles components and material handling equipment, proper storage including hazardous materials, food grade products, overhead storage, proper goods movement documentation and more. Includes all materials. To earn the Safety Director Credential, you must complete Safety Director Credential I and Safety Director Credential II. Prerequisite: LBS8130

LBS 0033 - Emergency Dispatcher II (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Builds upon the foundation laid through EMG131 or LBS 0027 and provides students with specific knowledge required to professionally handle emergency as well as non-emergency calls for service in the public safety environment. Provides students with a basic understanding of the role, responsibility and equipment utilized by telecommunicators to accomplish their mission.

LBS 8002 - Six Sigma Green Belt (3 Credits)
3 lecture, 3 total contact hours
This course describes how professionals can excel in process improvement and quality management by utilizing Six Sigma methodologies and tools. Participants will learn to identifiy core principles of Six Sigma, including DMAIC (define, measure, analyze, improve, and control) methodology, comprehensive statistical analysis, and practical examples of Six Sigma applications in various industries. This course provides essential knowledge and skills and prepares participants for the official Lean Six Sigma Green Belt certification.
Typically offered: Fall, Spring, Summer

LBS 8010 - Small Business Accounting Procedures (3 Credits)
3 lecture, 3 total contact hours
Grasp the fundamentals of accounting using the accounting cycle for both service and merchandising businesses, including adjustments, preparation of financial statements and closing procedures. You will focus on the reconciliation of bank statements, petty cash and examination of fraud and internal controls. This non-transfer course is intended for those students planning to take only one semester of accounting or for those who need preparation before enrolling in a more advanced accounting course. Upon request this course can be converted to college credit for course ACC100 and partially fulfills the requirement to earn the Accounting Bookkeeping Clerk Certificate for college credit.

LBS 8011 - Principles of Financial Accounting (4 Credits)
4 lecture, 4 total contact hours
Learn about accounting as an information system that produces summary financial statements primarily for users external to a business. You will focus on what effects transactions and other economic events have on the financial condition and operations of a corporate business. You will cover basic accounting concepts, financial statements, accrual and cash basis, the accounting cycle, monetary assets, inventories, fixed assets, current and long-term liabilities, and owner equity. Upon request this course can be converted to college credit for course ACC101 and partially fulfills the requirement to earn the Accounting Bookkeeping Clerk Certificate for college credit.

LBS 8050 - Professional Skills Intensive (1 Credit)
1 lecture, 1 total contact hours
Gives students a well-rounded view of some of the professional skills needed in today's workforce. Covers topics to help students learn how to communicate well and manage time. Reviews the principles of equity and inclusion and how to collaborate with others with different points of view. Teaches students about leveraging technology, solving problems and covers the principles and practices of strategic innovation.
Typically offered: Fall, Spring, Summer

LBS 8109 - Business Boot Camp (3 Credits)
3 lecture, 3 total contact hours
Provides a comprehensive exploration of business concepts and entrepreneurship, guiding students from ideation to the development of a product or service. Prepares students to build an entrepreneurial mindset, conduct market research, and explore viable business models. Includes topics such as leadership, team development, operations management, and strategies for scaling and managing risk. Includes final pitch presentations, preparing students to effectively communicate and execute their entrepreneurial visions.

LBS 8113 - Quickbooks Applications (2 Credits)
1 lecture, 2 lab, 0 clinical/other, 3 total contact hours
Whether you're a business owner or someone who needs to know how to use QuickBooks in your employer's company or organization, this course will deliver the skills you need to perform. Learn how set up, backup and store company files; create custom reports and graphs; prepare budgets and payroll; and track changes in your financial accounts. Students should have knowledge of accounting and have taken LBS 8010, Intro to Accounting, or have approval from the College. Upon request, this course can be converted to College credit. This blended course combines online and campus instruction.
Typically offered: Fall, Spring, Summer

LBS 8114 - CPA Review: Business Environmental Concepts (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Provides the student with the tools necessary to understand, review, and practice for the Business Environmental Concepts (BEC) section of the CPA Exam. Topics listed in the outline constitutes a general understanding for minimum requirements.

LBS 8115 - CPA Review: Audit and Attestation (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Provides students with the tools necessary to understand, review, and practice for the Audit and Attestation (AUD) section of the CPA Exam. Topics listed in the outline provides a general understanding that constitutes a minimum requirement.

LBS 8116 - CPA Review - Financial Accounting and Reporting (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Provides the student with the tools necessary to understand, review, and practice for the Financial Accounting and Reporting (FAR) section of the CPA Exam. A general understanding of the topics listed in outline would constitute a minimum requirement.

LBS 8117 - CPA Review - Regulation (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Provides the student with the tools necessary to understand, review, and practice for the Regulation (REG) section of the CPA Exam. A general understanding of the topics listed in outline would constitute a minimum requirement.

LBS 8136 - Entrepreneurship Fundamentals (3 Credits)
0 lecture, 0 lab, 0 clinical/other, 0 total contact hours
This course examines the benefits and burdens of entrepreneurship and helps you understand the process of converting your concept into a new venture. Shows you how to avoid common mistakes and focus on strategic management through developing your understanding of the various forms of business ownership and franchising, pricing strategies, financing, location selection, and human capital management. Discover the personal leadership traits helpful for successful entrepreneurship and assess your own entrepreneurial mindset.

LBS 8155 - Introduction to Payroll Accounting (2 Credits)
2 lecture, 0 lab, 0 clinical/other, 2 total contact hours
Learn the fundamentals of payroll accounting including the preparation of payroll records and tax returns for old age benefits and employment insurance. Learn to construct a Quarterly Federal Tax Return, Employer's Annual Unemployment Tax Return, and Illinois Employer's Contribution Report. Upon request this course can be converted to college credit for course ACC155 and partially fulfills the requirement to earn the Accounting Bookkeeping Clerk Certificate for college credit. Prerequisite ACC100, ACC101, LBS8010, or LBS8011.
Typically offered: Fall, Spring, Summer

LBS 8200 - Startup Strategies (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Investigates positives and negatives of entrepreneurship and the process of concept to new venture. Analyzes typical venture errors and focuses on strategic management. Evaluates business ownership and franchising, pricing strategies, financing, location selection and human capital management. Discovers personal leadership traits and assesses the personal entrepreneurial mindset.

LBS 8201 - Nnovative Product Development (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Investigates the importance of promoting and managing innovation and creativity in start-ups and existing firms. Explores successful frameworks, strategies, risks, profit-making and barriers when introducing break-through products and services. Masters the techniques for improving creativity, intellectual flexibility and leadership approaches used by managers and organizations to create and sustain innovation. Evaluates innovations and ideas for profit-making possibilities.

LBS 8202 - Funding Your Business (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Investigates a variety of available resources for new venture and growth funding. Examines opportunities for capital including options of debt, equity, crowdsourcing, angel investors, friends, family plans, and grants. Designs the start-up pitch for funding. Creates the financial statements for a business canvas or plan.

LBS 8203 - Makerspace Experience:Ideashop (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Provides practical experience in product production using up to three varieties of equipment and software at the MakerSpace and Entrepreneurship Center. This is a project-based course where students build skill sets over time from beginner, intermediate, advanced, and expert. This course may be repeated up to a maximum of four credit hours.

LBS 8204 - Ideation and Prototyping (3 Credits)
2 lecture, 2 lab, 4 total contact hours
Uses current technologies in 2D and 3D design. Students will create and execute entrepreneurial product ideas. Products will be developed and fabricated from ideation to consumer prototypes.

LBS 8205 - Digital Marketing & CX (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Presents techniques on how to design, maintain, and market effective digital storefronts. Focuses on communicating, selling, and providing content to Web-based stores and other Internet businesses.

LBS 8206 - Makerspace Build: 3D Printer (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Teaches students how to design and build high-performance 3D printers. Students will build their own Voron V0 3D printer, an open-source printer that has a high value-to-price ratio, good mechanical design, and high-speed printing. Students will discover how the inner workings of the frame, motion system, motors, electronics, and firmware work together to produce parts. Students will learn how to build, fix, maintain and upgrade their own printers. This course has a supply fee of $500 for the printer.

LBS 8207 - Future Founder Internship (1 Credit)
0 lecture, 2 lab, 2 total contact hours
Prerequisite: ENT 154 and 3 credit hours in ENT, MGT or MKT coursework with grades of D or better, or consent of program coordinator. Provides cooperative work experience working in an entrepreneurial venture or business. Credit is given for participation in a supervised work experience. The work must take place in a college-approved workstation. This course is repeatable twice for a total of three credit hours.

LBS 8250 - Human Resources Certification Preparation/Foundation (1.5 Credits)
1.5 lecture, 0 lab, 1.5 total contact hours
Strengthens your knowledge, advances your skills, and increases your recognition of the Human Resources global community. Integrates a well-rounded knowledge of the HRCI BoK and SHRM BoCK with an emphasis on operational and tactical application. Includes discussions and class participation throughout this course. Gains knowledge from a certified and experienced Human Resources professional, using discussions and practice exams to solidify learning. Students will have a solid foundation of the HRCI and SHRM core concepts required for industry certification exams.

LBS 8251 - Human Resources Certification Preparation/Strategy and Scenarios (2.5 Credits)
2.5 lecture, 0 lab, 2.5 total contact hours
Incorporates HRCI SPHR and/or SHRM-SCP certification knowledge and strategic concepts. Strengthens your leadership and strategic decision-making skills through real world case scenarios allowing you to expand your Human Resources knowledge. Emphasis on the "bigger picture" in understanding how Human Resources supports overarching strategy for implementation in such positions as chief human resources officer or chief people officer.
Typically offered: Fall, Spring, Summer

LBS 8255 - Solar Photovoltaic Certification Prep (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Prepares students for the NABCEP Associate Exam, an industry-recognized credential for solar professionals. Provides instruction on photovoltaic applications, safety, electricity basics, solar energy, system components, as well as photovoltaic systems electrical and mechanical design. Covers key topics for certification preparation and gives an in-depth introduction to the field of solar energy.
Typically offered: Fall, Spring

LBS 8256 - Solar Business and Technical Sales (4.5 Credits)
4.5 lecture, 0 lab, 4.5 total contact hours
Addresses topics from the NABCEP PV Technical Sales job task analysis and is offered in partnership with Solar Energy International. Focuses on important technical considerations for PV sales professionals, including financial analysis and system financing. Covers technical details needed to assess potential residential PV sites and to create and present accurate sales proposals. Includes site safety, customer qualification, solar site analysis, creating conceptual design proposals, performance modeling, system costing, incentives and rebates, financial-benefit analyses, financing options, and the non-financial benefits of photovoltaic systems. This course is for students who are interested in, or who are working in, the business or sales side of the residential PV industry and are looking to improve their knowledge.
Typically offered: Spring, Summer

LBS 8257 - Solar Business and Technical Sales I (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Addresses topics from the NABCEP PV Technical Sales job task analysis. Includes site safety, customer qualification, solar site analysis, creating conceptual design proposals, performance modeling, system costing, incentives and rebates, financial-benefit analyses, financing options, and the non-financial benefits of photovoltaic systems. This course is for students who are interested in, or who are working in, the business or sales side of the residential PV industry and are looking to improve their knowledge.
Typically offered: Spring, Summer

LBS 8260 - Solar Installation I (1.5 Credits)
1.5 lecture, 1.5 total contact hours
Covers the fundamentals of solar photovoltaic technology and solar installation to equip students with the essential knowledge for success in the field. Provides guidance on proper techniques for mounting solar panels on various surfaces, including attachment and sealing methods. Demonstrates design methodologies from inspection to project completion. Describes potential operational and maintenance challenges, along with effective troubleshooting methods.#Includes hands-on experience using industry-standard tools for installation.

LBS 8400 - Drone Pilot Ground School (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Provides knowledge about the regulations and procedures governing the legal operation of Small Unmanned Aerial Systems (sUAS) in the United States of America. Course content aligns with knowledge areas in the Federal Aviation Administration's (FAA's) Part 107 airman knowledge test for a Remote Pilot Certificate with a sUAS rating.
Typically offered: Fall, Spring, Summer

LBS 8401 - Small Unmanned Aerial Systems (sUAS) (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Introduces Small Unmanned Aerial Systems (sUAS) safety procedures, mission planning best practices, maintenance protocols, flight proficiency, and the fundamentals of sUAS image processing.
Typically offered: Fall, Spring, Summer

LBS 8600 - Strategic Planning (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Provides students with the skills needed to develop a thorough understanding of the current and desired future state of an organization, its operational policies and practices and how it is viewed within the market. Includes assessing internal and external risk factors. Provides students with tools necessary to learn to develop mission and vision statements.

CPE Cannabis (LCB)

LCB 8001 - Fundamentals of Cannabis (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Studies the history of cannabis, cannabis plant anatomy, and cannabis strains. Addresses methods of cannabis consumption, common cannabis myths, and the stigmatization of cannabis in the United States.
Typically offered: Spring

LCB 8002 - Pharmacology of Cannabis (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Presents the effects of various components of the cannabis plant and how the body responds to cannabis-based medications and therapeutic treatments. Teaches about the history of medical cannabis and studies the role of the Endocannabinoid system, in addition to the therapeutic effects of various methods of cannabis administration. The course will also address the fundamental pharmacological properties of pharmacokinetics and pharmacodynamics as they influence routes of administration, drug distribution, drug levels in the body, and adverse reactions to cannabis use.
Typically offered: Spring

LCB 8003 - Cannabis Dispensary Operations (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Introduces cannabis dispensary operations in state of Illinois. Addresses dispensary regulatory compliance, business operations, facility structure, security, and employee relations.

LCB 8004 - Clinical Aspects of Medical Cannabis (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Introduces common medicinal uses for cannabis in the treatment of nausea, vomiting, pain, and anxiety. Learns effective communication and assessment techniques related to conditions, which respond favorably to medicinal cannabis. Addresses therapeutic benefits, potential side effects, and drug interactions.

CPE Career Explorations (LCE)

LCE 0005 - Professional Meeting/ Event Planning (1.5 Credits)
1.5 lecture, 0 lab, 0 clinical/other, 1.5 total contact hours
If you're new to meeting and event planning or a seasoned pro, this course will expand your knowledge and skills within this growing industry. This class will assist whether you are seeking help with planning a single meeting or event, or you want to find out how to grow your career in the meeting industry. Covers all topics. Purchase your textbook at the HarperStore: CIC Manual 9th Ed. Published by Convention Industry Council.

LCE 0008 - Professional Wedding Consultant (1 Credit)
1 lecture, 0 lab, 0 clinical/other, 1 total contact hours
Wedding consultants calm the nerves of brides and grooms by taking on the important details of planning and implementing a wedding. Learn about the services you can provide as a wedding consultant including negotiations, contracts, vendors, etiquette, wedding insurance, décor, destination or theme weddings, and cultural protocol. Also, gain insight into how to market yourself and your business. As a wedding consultant you'll play an important role in planning this very special and life changing event. Includes materials.

LCE 0009 - Event Design (0.5 Credits)
.5 lecture, 0 lab, 0 clinical/other, .5 total contact hours
You may already be involved with events as a set designer, florist, or interior designer. If so, your skills are readily transferable to event design. Or, maybe you are just beginning to explore event design as a new career. This 12-hour class covers the basics of event design including graphics, furniture, and the importance of fashion and industry design standards, as well as key aspects such as using landscaping and lighting in professional event design. The course is taught by an expert wedding and event planner. Includes all required materials.

LCE 0011 - Truck Driver Training 160 (7 Credits)
3 lecture, 9 lab, 0 clinical/other, 12 total contact hours
The 160-hour CDL A license course meets all Illinois requirements. Includes permit test, pre-trip inspections, yard skills practice, highway driving and road tests. Students demonstrate the CDL laws, use of controls, safe driving techniques and defensive driving. Hazmat endorsement optional with additional $89.50 paid directly to vendor providing service. Successful completion allows individuals to sit for the Illinois CDL A exam. Courses start every Monday at one of our locations.

LCE 8000 - Career Exploration – What Career Is Right for You? (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Provides a fundamental introduction to academic areas of interest. Focuses on career degrees and certificate programs. Instructs students to identify their career attributes through self-assessment and learning about various occupations that fit their unique career needs.

LCE 8011 - Forklift Operator (1 Credit)
1 lecture, 0 lab, 1 total contact hours
This course is designed to provide students with the tools and resources needed to become safe and effective forklift operators. Upon completion of the program, students will have working knowledge of the basic use of lift truck as well as the ability to safely inspect and operate lift trucks. The curriculum includes theory and practical training. Upon successful completion, students receive a National Safety Council Forklift operator card and Certificate of Completion from Harper College.

LCE 8012 - Class B Vehicle Training Test Prep (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Provides students with the tools and resources needed to sit for the General Knowledge, Passenger and Air Brakes written Examinations as administered by the Illinois Secretary of State, Commercial Driver's License Division. Helps students gain a thorough understanding of the current laws, rules, and regulations that govern the operation of a Class B Commercial Motor Vehicle. Requires that students complete a pre-test to determine their mastery of instructions provided and their preparedness for State exams, which is required prior to sitting for the written examination.

LCE 8013 - Truck Driver Training 240 (10.5 Credits)
3 lecture, 15 lab, 18 total contact hours
The 240-hour CDL A license course meets all Illinois requirements of 160 training hours plus 80 additional hours. Includes pre-trip inspections, yard skills practice, highway driving, road tests, in addition to advanced trip planning, logs/other documentation, plus advanced cargo handling and shipping. Students can obtain doubles and triples and tanker endorsements. Hazmat endorsement optional with additional $89.50 paid directly to vendor providing service. Courses start every Monday at one of our locations.

LCE 8016 - Truck Driver Training 160 (7 Credits)
3 lecture, 9 lab, 12 total contact hours
The 160-hour CDL A license course meets all Illinois requirements. Includes permit test, pre-trip inspections, yard skills practice, highway driving and road tests. Students demonstrate the CDL laws, use of controls, safe driving techniques and defensive driving. Hazmat endorsement optional with additional $89.50 paid directly to vendor providing service. Successful completion allows individuals to sit for the Illinois CDL A exam.

LCE 8019 - Library Assistant (2 Credits)
2 lecture, 2 total contact hours
Prepare to work as a library assistant. Learn about library organization and operations, including how materials are ordered, processed, and cataloged. Discuss various library automation systems. Gain insight into how materials are shelved, circulate, and removed from circulation. Become informed about patron and library expectations. Library assistants may work part-time or fulltime. Includes all materials.

CPE Cisco (LCI)

LCI 8001 - Cisco CCNA Network Specialist (2.5 Credits)
2 lecture, 1 lab, 3 total contact hours
Introduces standard networking terms, concepts and devices. Focuses on the selection, connection, configuration and troubleshooting of Cisco switches and routers as they are commonly used in small- to medium-sized networks. Helps students prepare for the Cisco CCNA certification exam. Must have CompTIA Network+ training or equivalent experience prior to enrollment.
Typically offered: Fall, Spring

CPE CompTia (LAP)

LAP 0006 - CompTIA Pentest + (2 Credits)
2 lecture, 1 lab, 3 total contact hours
Clarifies how to develop penetration testing skills that will enable the IT professional to identify information systems vulnerabilities by effectively applying remediation techniques for those vulnerabilities. Teaches how to offer recommendations for action to properly protect information systems and their contents. Prepares for CompTIA PenTest+ certification exam. Recommended: Intermediate knowledge of information security concepts, including but not limited to identity and access management (IAM), cryptographic concepts and implementations, computer networking concepts and implementations, and common security. Practical experience in accruing various computing environments, including small to medium businesses, as well as enterprise environments.
Typically offered: Spring

LAP 8010 - CompTIA Security+ (2.5 Credits)
2 lecture, 1 lab, 3 total contact hours
Provides vendor-neutral instruction on systems security, network infrastructure, access control, risk mitigation, cryptography, and organizational security. Covers workstation and server security, network vulnerabilities, risk assessments, monitoring tools, network security tools, authentication, rights and privileges, encryption, and disaster recovery. Helps prepare for the CompTIA Security+ certification.

LAP 8019 - CompTIA IT Fundamentals+ (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Gains the knowledge and skills required to identify and explain the basics of computing, IT infrastructure, software development and database use. Learns to install software, establish basic network connectivity, and identify/prevent basic security risks. Obtains knowledge in the areas of troubleshooting theory and preventative maintenance of devices. Learns some of the basic principles and techniques of providing PC, mobile, applications, and network support. Prepares the student for the ITF+ certification exam.
Typically offered: Fall, Spring, Summer

LAP 8020 - CompTIA A+ Computer Technician (2.5 Credits)
1.5 lecture, 2 lab, 3.5 total contact hours
Prepare for a career as an information technology (IT) professional or personal computer (PC) technician. Learn how to install, upgrade, repair, configure, troubleshoot, optimize, and perform preventive maintenance of personal computer hardware and operating systems. This course helps prepare you for the CompTIA A+ certification examinations in order to become a CompTIA A+ Certified Professional. Prerequisites: Be able to browse and search the Internet, operate a personal computer, and work with operating systems such as Microsoft Windows.
Typically offered: Fall, Spring, Summer

LAP 8021 - CompTIA Network+ (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Teaches planning, installation, and troubleshooting of networks in a business environment. Includes the OSI model, network card configurations, diagnosing network problems, and hands-on practice setting up a network environment. Must have A+ certification or equivalent prior to enrollment.
Typically offered: Spring, Summer

LAP 8022 - CompTIA Security+ (2.5 Credits)
2 lecture, 1 lab, 0 clinical/other, 3 total contact hours
Provides vendor-neutral instruction on systems security, network infrastructure, access control, risk mitigation, cryptography, and organizational security. Covers workstation and server security, network vulnerabilities, risk assessments, monitoring tools, network security tools, authentication, rights and privileges, encryption, and disaster recovery. Helps prepare for CompTIA Security+ certification.
Typically offered: Fall

LAP 8023 - CompTIA Cybersecurity Analyst+ (2 Credits)
1 lecture, 2 lab, 0 clinical/other, 3 total contact hours
Covers the duties of those who are responsible for monitoring and detecting security incidents in information systems and networks, and for executing a proper response to such incidents. Introduces tools and tactics to manage cybersecurity risks, while promoting a comprehensive approach to security on the front lines of defense. Learn how to identify various types of common threats, evaluate an organization's security, collect and analyze cybersecurity intelligence, and handle incidents as they occur. This course prepares students for the CompTIA Cybersecurity Analyst+ (Exam CS0-001) and fulfills DoD directive 8570.01 for information assurance (IA) training. Prerequisites: CompTIA Network+ or equivalent knowledge required. CompTIA Security+ recommended.
Typically offered: Spring

LAP 8024 - CompTIA Datasys+ (3 Credits)
3 lecture, 3 total contact hours
CompTIA DataSys+ provides the fundamentals of scriting and programming in a database environment. This course demonstrates designing and modeling databases to complete database tasks. Participants will apply knowledge to install, configure, and maintain database software while establishing sound security. This course prepares students for the DataSys+ Certification Exam. An eBook, labs, and one exam voucher are included in the course fees.
Typically offered: Fall, Spring

LAP 8025 - CompTIA Linux+ (1.5 Credits)
1 lecture, 1 lab, 2 total contact hours
Learn how to administer a Linux environment and prepare for two CompTIA Linux+ certification exams. Review basic system architecture, installation, and management; understand commands, devices, and file systems; utilize shells, scripting, and data management techniques; and navigate user interfaces, desktops, and essential system services. Prerequisite: CompTIA A+ Certification or equivalent experience.

LAP 8026 - CompTIA Data+ (3 Credits)
3 lecture, 3 total contact hours
This course covers data mining and demonstrates the manipulation of data. Participants will apply statistical methods and analysis to complex datasets to make data-driven decisions.
Typically offered: Spring, Summer

LAP 8028 - CompTIA Cloud+ (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Learns how to build cloud sysadmin (systems administrator) skill set to confidently perform duties in any cloud administrator role. Explores upkeep, configuration, and reliable operation of computer systems, especially multi-user computers, such as servers. Prepares students to sit for the CompTIA Cloud+ certification exam.
Typically offered: Spring, Summer

CPE Computer Training (LCT)

LCT 0050 - Big Data Analytics (1 Credit)
1 lecture, 0 lab, 0 clinical/other, 1 total contact hours
With the growth of smart devices and the huge amounts of data they generate, plus the ability of computers to digest and learn from this data, Big Data Analytics has become a critical area of focus for most businesses. Students will learn about predictive models that create business value from Big Data solutions, the technology (databases, query languages, architectures), and statistical techniques of Big Data Analytics. Prerequisites: basic understanding of statistics, databases, and data management.

LCT 0051 - Introduction To R Programming (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Learn R programming, and become skilled in this open source language and software environment for statistical computing and graphics. R programs are used by statisticians and data miners to facilitate data analysis and visualization and help build predictive models. In this class, you will learn how to define a predictive modeling problem to study; learn R commands for data analysis, program a real-time predictive tool. and apply your approach to different predictive problems as part of class projects.

LCT 0054 - Web Maintenance and Management (2 Credits)
2 lecture, 2 total contact hours
Teaches essential web page development skills and how to work as a productive member of a website development team. Develops websites using Hypertext Markup Language version 5 (HTML5) and Cascading Style Sheets (CSS). Teaches writing code manually, as well as use graphical user interface (GUI) authoring tools. Use Application Programming Interfaces (APIs) to extend functionality of web pages. Validates HTML code and recognize the importance of search engine optimization (SEO). Demonstrates how websites are developed as managed projects and identifies e-commerce solutions. Recommended: Intermediate computer user skills and knowledge of internet concepts.

LCT 0155 - Adobe Illustrator CC II (0.1-900 Credits)
0 - 900 lecture, 0 - 900 lab, 0 - 900 clinical/other, 0 - 900 total contact hours
This class is geared for the student who is already familiar with the Adobe workspace, setting up files and the different tools in the tool palette. Continue working with the different features of Adobe Illustrator. Learn how to create and manipulate type, become a master with the pen tool and tracing placed images, work with layers, create blends and gradients, use the brush tool to create artwork and complete an in-class project. Prerequisite: Adobe Illustrator CC I or comparable Adobe Illustrator experience.

LCT 0550 - Internet of Things (IOT) (0-900 Credits)
0 - 900 lecture, 0 - 900 lab, 0 - 900 clinical/other, 0 - 900 total contact hours
This course will provide students with a holistic view of the Internet of Things (IoT) and IoT digital transformation through various industrial use cases (Smarter City, Industrial 4.0, Healthcare, etc). The topics include IoT business ideas, use cases, solution architectures and ecosystems. This course also includes an optional lab where students can implement the Internet of Things value chain from a simulated sensor device, and then upload the data to the cloud platform.

LCT 8001 - Introduction To MySQL (1 Credit)
.5 lecture, 1 lab, 0 clinical/other, 1.5 total contact hours
Designed specifically as a web back end, MySQL is a database management system that powers many of today's high-traffic websites such as YouTube, Facebook, Flickr, and Yahoo. This course will show you how to quickly and efficiently set up and administer a MySQL database. Using real-world exercises, you will become proficient in running SQL queries against the server and in customizing an SQL database using the tools in the MySQL tool kit. Prerequisites: LCT0193 Intro to JavaScript Programming and LCT0292 Intro to PHP or equivalent experience.

LCT 8003 - Web Coding Boot Camp (0.5 Credits)
.5 lecture, 0 lab, .5 total contact hours
Explores the basics of web design and web development skills including HTML, CSS, JavaScript, and jQuery. Demonstrates how they are used together on a website. Prerequisite: Introduction to Computers Using Windows or equivalent experience.
Typically offered: Fall, Spring, Summer

LCT 8009 - Web Design Essentials (3 Credits)
2 lecture, 2 lab, 4 total contact hours
This course introduces the foundational skills needed to create web pages utilizing HyperText Markup Language (HTML), Cascading Style Sheets (CSS), and an overview of the JavaScript language. Topics include web design best practices, web site hosting, internet protocols, graphics, media and security. Student will create a business-oriented web site as a class project.

LCT 8012 - Foundations of Web Development (1 Credit)
1 lecture, 1 total contact hours
Covers the essentials and terminology of web design and web development skills, including HTML, CSS, and JavaScript. Explores how different tools are used together on a website. Delves into potential career trajectories and explores the existing education and certification pathways available in the field of web development.
Typically offered: Fall, Spring

LCT 8090 - Career Development For Immigrant Professionals (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Equips skilled immigrants and refugees with the tools and knowledge to navigate the U.S. professional job market and higher education systems effectively. Helps participants develop personal and professional narratives, understand cultural and legal contexts, and deploy digital research tools for career advancement. Guides students to create actionable career plans, improve job application materials, and explore alternative career options while leveraging available resources. Enhances networking and communication skills through practical exercises and continuous feedback. Prerequisites: Immigrant or refugee participants with professional work experience and degrees/licenses from outside the U.S.; completed résumé in English prior to first class session; English proficiency (Harper College Adult Education ELA 9 or higher; proficiency with computer systems: Word, PowerPoint, and email; ability to create web-based user accounts and build online profiles.

LCT 8095 - Conducting an Online Job Search (1 Credit)
1 lecture, 0 lab, 1 total contact hours
This course will teach participants the strategies and techniques needed to conduct a successful online job search. Participants will learn how to use online job search tools and resources to find job opportunities that match their skills and interests, and how to effectively communicate their qualifications to potential employers. The course will cover a variety of topics, including resume writing, online networking, job search websites and applications, and interview preparation. By the end of this course, participants will have a solid understanding of how to conduct an effective online job search and be prepared to successfully navigate the job market.

LCT 8100 - Workplace Computer Skills (1.5 Credits)
1 lecture, 1 lab, 2 total contact hours
Introduces the use of computer, digital and information literacy skills in the workplace for Continuing Professional Education students. Focuses on familiarizing learners with very basic keyboarding functions and word processing. Introduces components of the Web and accessing a website using a browser such as Internet Explorer or Google Chrome. Develops critical thinking skills by evaluating online sources of information, comparing styles of communication and group problem-solving and discussion. Topics may include work readiness skills, workplace communication, job search and interview process and workforce/career preparation.

LCT 8101 - Graphic Arts Fundamentals (3 Credits)
2 lecture, 2 lab, 0 clinical/other, 4 total contact hours
Teaches the fundamentals of the graphic arts industry. Uses industry based software to create professional layouts for print media. Introduces basic operations of Adobe Photoshop, Illustrator and InDesign will allow for the hands-on development of documents. Explores graphic arts workflow, various printing methods, typography, design elements, color management and the many career possibilities the industry has to offer.

LCT 8103 - Digital Imaging I (3 Credits)
2 lecture, 2 lab, 3 total contact hours
Covers fundamentals of professional digital image-editing software (Adobe Photoshop). Emphasizes skills to manipulate photos using current software tools and special effects filters. Explores program tools, color correction, channels, layers, and masks. Computer skills are required for success in this course. Upon request this course can be converted to college credit for course GRA103.

LCT 8105 - Professional Illustration Software (3 Credits)
3 lecture, 0 lab, 0 clinical/other, 3 total contact hours
Describes tools and functions within the current software. Demonstrates creating illustrations, working with type, color, and all tools needed to create multi-colored illustration and separation. Applies techniques to create illustration files for use in digital print production. Applies vector graphics software and its applications to the graphic arts industry. Computer skills are required for success in this course.

LCT 8108 - Photography Fundamentals (2 Credits)
2 lecture, 2 total contact hours
Explores beginning fundamentals of photography, its history, and the development of photography in both commercial and creative usage. Presents a past and present use of photography focusing on techniques and applications in a conventional camera-based environment emphasizing the digital photographic arena.

LCT 8350 - Foundations of Data Analysis (0.5 Credits)
.5 lecture, 0 lab, .5 total contact hours
This course covers essential skills in data analytics and lays the groundwork for exploring and implementing advanced big data technologies. Students will delve into potential career trajectories and explore the existing education and certification pathways available in the field of data analytics.
Typically offered: Fall, Spring, Summer

LCT 8375 - Statistics and Data Analysis Essentials (3 Credits)
3 lecture, 3 total contact hours
This course provides an essential foundation in statistics and data analysis, covering topics such as statistics, variables, and probability. Participants will learn to apply statistical principles such as central tendency measurement and distributions. This course demonstrates how to handle data, the central limit theorem (CLT), analysis, regression and statistical forecasting, and provides a fundamental grasp of statistical methods with practical applications.
Typically offered: Spring, Summer

LCT 8400 - Predictive Analytics Using Big Data (1 Credit)
1 lecture, 0 lab, 0 clinical/other, 1 total contact hours
Understands how the growth of smart devices and the huge data they generate, along with the significant increase in the ability of computers to digest and learn from data, has led to Predictive Analytics becoming a critical area of focus for most businesses. Explores the three dimensions of Predictive Analytics. Studies technology (databases, query languages, R language, architectures) and statistical techniques of Big Data Analytics. Learns the statistical techniques underpinning Predictive Analytics, such as regression and correlation. Applies Predictive Analytics to a real-life domain situation. Recommended: Basic understanding of statistics, databases and data management.
Typically offered: Fall, Spring

LCT 8600 - Introduction to R Programming (1 Credit)
1 lecture, 0 lab, 0 clinical/other, 1 total contact hours
Learn R programming, and become skilled in this open source language and software environment for statistical computing and graphics. R programs are used by statisticians and data miners to facilitate data analysis and visualization and help build predictive models. In this class, you will learn how to define a predictive modeling problem to study; learn R commands for data analysis, program a real-time predictive tool. and apply your approach to different predictive problems as part of class projects.
Typically offered: Spring

LCT 8900 - Microsoft Azure Fundamentals (0.5 Credits)
.5 lecture, 0 lab, .5 total contact hours
Identify foundational level knowledge of cloud services and how those services are provided with Microsoft Azure. Learn about cloud services and Microsoft Azure. Cover general cloud computing concepts as well as general cloud computing models and services such as Public, Private and Hybrid cloud and Infrastructure-as-a-Service (IaaS), Platform-as-a-Service(PaaS) and Software-as-a-Service (SaaS). Explore some core Azure services and solutions, as well as key Azure pillar services concerning security, privacy, compliance and trust. Prepares for Microsoft certification exam AZ-900.
Typically offered: Fall, Spring, Summer

CPE Data/Tele/Wireless (LDT)

LDT 8001 - Tableau Desktop I (0.5 Credits)
.5 lecture, 0 lab, .5 total contact hours
Demonstrates how tools connect to and transform massive amounts of data into visualizations, dashboards and interactive worksheets. Learns how to identify and configure basic functions of Tableau. Creates views and customize data visualizations. Creates maps, dashboards, and stories. This course is intended for individuals using desktop or web-based data management tools to perform numerical data analysis. Recommended Preparation: experience using Excel and an understanding of database design concepts.
Typically offered: Spring, Summer

LDT 8002 - Tableau Desktop II (0.5 Credits)
.5 lecture, 0 lab, .5 total contact hours
Reports on data insights and trends with Tableau®. Learns to manipulate data with calculations to show insights, make visualizations interactive and perform statistical analysis. Learns to enrich visualization with advanced calculations and showcase data insights from statistical analysis. Recommended preparation: Tableau Desktop I or equivalent experience.
Typically offered: Spring, Summer

CPE Emerging Technologies (LEM)

LEM 8000 - Exploring Emerging Technologies (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Explores how to be part of new technologies that will shape how we live and work. Provides an understanding of artificial intelligence, machine learning, cybersecurity, cloud computing, big data, internet of things (IoT), augmented reality, virtual reality, blockchain, digital privacy, and more. Designed to help students discover their tech path, from a basic understanding of emerging technology or to pursue a career or advanced training in this field.
Typically offered: Fall, Spring, Summer

LEM 8001 - Foundations of Artificial Intelligence (0.5 Credits)
.5 lecture, 0 lab, 0 clinical/other, .5 total contact hours
Artificial Intelligence is rapidly evolving with numerous applications across many industries. In this interactive course, students will learn about the AI Project Cycle and building AI solutions. Students will also gain knowledge of machine learning tools and Python packages. This course is designed to prepare students for AI for business solutions and other emerging technologies.
Typically offered: Fall, Spring

LEM 8002 - Artificial Intelligence I (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Explores how Artificial Intelligence (AI) continues to evolve rapidly with numerous applications across many industries. Learns how the AI Project Cycle is an iterative approach to building AI solutions in this interactive course. Gains knowledge of machine learning tools and python packages. Prepares students for AI for business solutions and other emerging applications and technology. Prerequisite: CE Introduction to Artificial Intelligence or equivalent experience.
Typically offered: Fall, Spring, Summer

LEM 8004 - Artificial Intelligence Foundations II (1 Credit)
.5 lecture, 1 lab, 1.5 total contact hours
Explores common trade applications of Artificial Intelligence, including novice, intermediate, and advanced levels. Utilizes linear regression for predictive maintenance and employee attrition predictions. Learns how to detect insurance fraud and analyze quality assurance systems. Prerequisite: LEM8002 Artificial Intelligence Foundations or equivalent experience.
Typically offered: Fall, Spring, Summer

LEM 8006 - Artificial Intelligence: Strategies For Marketing (1 Credit)
1 lecture, 1 total contact hours
This course provides an in-depth understanding of current AI applications in marketing and offers hands-on strategies for leveraging AI in your own campaigns. Participants will utilize data analysis, customer segmentation, predictive analytics, and content personalization to develop practical skills and insights that empower professionals in this rapidly evolving digital world. Participants will also enhance their proficiency in utilizing AI to deliver targeted, data-driven, and innovative marketing strategies.
Typically offered: Fall, Spring

LEM 8008 - Foundations of Cybersecurity (0.5 Credits)
.5 lecture, .5 total contact hours
Learn the essentials of cybersecurity in a cloud computing environment. This course provides an understanding of cloud at the center of emerging AI technologies among a growing landscape of high-demand software. Topics include an overview of cybersecurity and cloud terminology, systems, and services, as well as the training and career pathways for these growing fields.
Typically offered: Fall, Spring

CPE Firefighter Training (LFT)

LFT 8000 - Foundations of Fire Service (1 Credit)
1 lecture, 0 lab, 0 clinical/other, 1 total contact hours
Offers a comprehensive exploration of the fire service and emergency medical services (EMS) career fields. Covers a range of topics, from the foundational principles of firefighting philosophy and the history of the fire service to the organization and function of fire departments. Explores the educational requirements and certification processes for both fire and EMS services, covering diverse career pathways within these fields. The course also includes in-depth modules on fire service and EMS terminology, skills orientation, fire behavior, and the integration of EMS within the fire service.
Typically offered: Fall, Spring, Summer

LFT 8001 - Fire Service Instructor I (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Gives participants the knowledge and skills to teach within the field of fire and emergency services. Meets and exceeds the requirements outlined by the Illinois Office of the State Fire Marshal "OSFM". Covers the fundamentals of instruction methods, learning processes, communications, lesson plans, safety, and evaluation in the learning process as defined by NFPA 1041. Serves as a prerequisite for Fire Instructor II.
Typically offered: Fall, Spring, Summer

LFT 8002 - Fire Service Instructor II (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Provides advanced instruction to individuals in the fire and emergency services. Meets and exceeds the requirements outlined by the Illinois Office of the State Fire Marshal ("OSFM") and NFPA 1041. Introduces advanced instructional skills necessary to teach fire and emergency services personnel. Familiarizes the student with behavioral objectives, cognitive, psychomotor skills, teaching methods and applications in training sessions. Covers training records, reports, and the development and administration of evaluation instruments. Needs successful completion of prerequisite for enrollment: Fire Service Instructor I.
Typically offered: Fall, Spring

LFT 8003 - Fire Department Incident Safety Officer (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Meets and exceeds the requirements outlined by the Illinois Office of the State Fire Marshal "OSFM" and provides students with the knowledge and skills needed to perform as an Incident Safety Officer (ISO), as defined by NFPA 1521. Provides a foundation of knowledge and understanding of safety as applied to emergency services. Examines the need for safety in the everyday performance of all aspects of their jobs and gain an understanding of the essential elements needed to reduce accidents and injuries. Teaches students how to monitor and report various types of emergency incidents including Fire, EMS, Technical Rescue, and Hazardous Materials scenes.
Typically offered: Fall, Spring

LFT 8010 - Company Fire Officer/Fire Officer 1 (8 Credits)
8 lecture, 0 lab, 8 total contact hours
The Company Fire Officer (COFO) course is designed to provide a comprehensive understanding of fire service leadership and management principles at the Company Officer level. The course is compliant with NFPA 1021: Standard for Fire Officer Professional Qualifications (2020 ed.) and meets the Company Fire Officer certification requirements of the Illinois Office of the State Fire Marshal (OSFM). This course will cover topics such as leadership, management, communication, risk management, and emergency planning. Participants will learn how to supervise and manage a single fire company or station and how to make effective decisions in emergency situations.
Typically offered: Fall, Spring

LFT 8490 - Foundations of Law Enforcement (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Offers a comprehensive exploration of law enforcement careers. Covers the historical foundation of law enforcement, the structure of organizations and the operations of law enforcement agencies in society. Explores the entry-level requirements and preparations for law enforcement and investigates diverse career pathways within this field. Includes in-depth modules on law enforcement terminology, skills orientation, laws, and constitutional policing.
Typically offered: Fall, Spring, Summer

LFT 8500 - Crime Scene Photography (0.5 Credits)
2 lecture, 0 lab, 2 total contact hours
This course provides law enforcement officers with the skills and knowledge needed to process crime scenes and collect evidence. Students will learn how to operate a digital SLR camera system for the photographic documentation of crime scene evidence.
Typically offered: Fall, Spring, Summer

LFT 8510 - Latent Print Technology (0.5 Credits)
1 lecture, 0 lab, 0 clinical/other, 1 total contact hours
This course offers a comprehensive overview of hands-on techniques for the development, enhancement, processing and collection of latent prints. Latent Print Technology also covers substrate experimentation using the current best practice techniques and fingerprinting equipment.
Typically offered: Fall, Spring, Summer

LFT 8520 - Bloodstain Evidence (0.5 Credits)
1 lecture, 0 lab, 1 total contact hours
This course introduces students to various blood evidence identification and processing techniques. Bloodstain Evidence provides students with a detailed explanation of the most up-to-date, scientifically sound methods for identifying, documenting, and collecting bloodstain evidence encountered by law enforcement crime scene service units.
Typically offered: Fall, Spring, Summer

LFT 8600 - Integrating Drones into Public Safety (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Focuses on modern drones, which are transforming public safety while prioritizing privacy protection. Provides students with the essential knowledge and skills needed to build and enhance an effective public safety drone team. Addresses the rising demands for safety at public events and for search and rescue operations, while ensuring students stay well informed about the latest drone regulations. Prepares students to be well-equipped to implement drone technology responsibly and effectively in their communities.

LFT 8650 - Self Defense and Safety Awareness (1 Credit)
1 lecture, 1 total contact hours
Covers the foundational, theoretical, and physical skills of personal safety and defense. Provides an understanding of how personal mindsets and awareness contribute to individual personal safety. Features practical skills demonstrations, hands-on experience, conducting a safety assessment, and a skills test.

CPE Health Care Prof (LNU)

LNU 8100 - RN Refresher (7 Credits)
4.5 lecture, 5 lab, 9.5 total contact hours
Restart your career as a registered nurse in this refresher course. The first part of this unique program utilizes a blended approach to help you hone your critical thinking skills as you become familiar with the most current trends in nursing care. During the second part of the course, the Nursing Field Experience provides the opportunity to put theory into practice in a clinical setting. If you have been licensed in the US and desire to return to a patient care setting, this course is for you. Twenty CEs are awarded for RN license renewal in Illinois. Students purchase skills day kit and course materials.

LNU 8101 - RN Refresher Theory and Skills Review (4.5 Credits)
4.5 lecture, 0 lab, 4.5 total contact hours
This course is the classroom portion of the RN Refresher course (LNU8100); students in this section do not participate in the Nursing Field Experience. Designed for foreign trained nurses who are preparing to take the nursing licensing exam. The blended format of this course will help you become familiar with the most current trends in nursing care and the Nurse Practice Act in Illinois. As a student at Harper College, you will also have access to all of the nursing resources at the college to help you prepare for the licensing exam. Students purchase skills day kit and course materials.

LNU 8102 - RN Refresher Clinical (2 Credits)
0 lecture, 6 lab, 6 total contact hours
Provides nurses who need a refresher course with the most current medical information and an opportunity to refresh bedside nursing skills. Includes current trends in nursing processes and documentation. Covers care for respiratory, cardiac, liver/biliary, renal/urinary, diabetic and cancer patients. Reviews post-operative procedures, skin care and wound management, mental health and caring for older adults. Prerequisite: LNU8101 RN Refresher Theory and Skills Review.

CPE International Trade (LGT)

LGT 8100 - Introduction to International Trade (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Reviews the many aspects of handling trade internationally and discovers the basics of what trade is and how companies utilize it. Discusses the particulars of processes, legality, and oversight for import procedures. Teaches the skills and knowledge about how the entire company contributes to the international trade process. Includes export regulations and 19 Code of Federal Regulations requirements.

LGT 8101 - Introduction to Importing And Exporting (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Reviews the many aspects of handling trade internationally and discovers the basics of what trade is and how companies utilize it. Discusses the particulars of processes, legality, and oversight for import procedures. Gains the skills and knowledge about how the entire company contributes to the international trade process. Learns about export regulations and 19 Code of Federal Regulations requirements.

LGT 8102 - International Trade Compliance and Topics (1 Credit)
1 lecture, 0 lab, 1 total contact hours
This course will review supply chain processes and go in-depth to discuss both export compliance and import compliance. It will introduce methods in creating trade compliance programs within companies as well as risk mitigation and money-saving opportunities.

CPE Java (LSJ)

LSJ 8001 - Java Fundamentals (1.5 Credits)
1.5 lecture, .5 lab, 2 total contact hours
Learn simple and object-oriented program development, primitive and reference variables, the Java API, objects and classes, creation and calling of methods, encapsulation, conditionals, arrays, loops, inheritance, interfaces, polymorphism, collections, exception handling, and Java features including java.time and Lambda expressions. Covers essential components of Java. Helps you prepare for the Java Programmer certification exam. Recommended preparation: previous experience with Java or one other programming language.
Typically offered: Spring

LSJ 8002 - Java Programming (2 Credits)
1.5 lecture, 1 lab, 2.5 total contact hours
Covers core Application Programming Interfaces (API) used to design object-oriented applications with Java. Create classes, extend abstract classes and learn how to program with interfaces. Use Lambda expressions. Develop applications that manipulate files, directories and file systems. Provides knowledge in how to use exceptions and the Collections framework, write database programs with JDBC and multi-threaded applications. Recommended Preparation: LSJ8001 or the ability to create, compile and execute programs. Understanding of object-oriented principles, database concepts and familiarity with SQL syntax.

LSJ 8003 - Java Programming Language (2.5 Credits)
2 lecture, 1 lab, 3 total contact hours
Focuses on the syntax of the Java programming language and helps students prepare for the SCJP certification exam. Includes object-oriented programming, classes, encapsulation, inheritance, arrays, exception handling, generics, I/O, interfaces, and threads. Prerequisite: LSJ 8012 with an outcome of satisfactory (S) or equivalent knowledge.

LSJ 8012 - Java Programming Fundamentals (2.5 Credits)
2 lecture, 1 lab, 3 total contact hours
Introduces students to object-oriented programming and the basics of the Java programming language. Intended for students with little or no programming experience or those with experience in non-object-oriented languages. Students need basic computer skills for this class.

LSJ 8490 - Introduction to Javascript (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Provides a comprehensive and practical mastery of JavaScript (JS), one of the core programming languages for web development. Demonstrates how to apply JavaScript to create dynamic web pages and simple web applications. Provides a well-rounded understanding of the language through hands-on coding examples and app creation. Knowledge of HTML and some programming experience is recommended.
Typically offered: Fall, Spring, Summer

LSJ 8500 - Beginning Programming with Java (1 Credit)
1 lecture, .5 lab, 1.5 total contact hours
Covers setup, basic program construction, variables, expressions, methods, loops, decision, and the Java API for individuals with little or no programming experience and basic computer skills.

LSJ 8510 - Introduction to OOP with Java (1 Credit)
1 lecture, .5 lab, 1.5 total contact hours
Covers the essentials of object oriented programming using Java. Gets to the heart of objects, their benefits, how they are constructed and used in a program. Teaches OOP with relevant and insightful examples. Requires lab work outside of class. PREREQUISITE: Beginning Programming with Java course or any previous programming experience.

LSJ 8511 - Java SCJP Certification Training I (1 Credit)
1 lecture, .5 lab, 1.5 total contact hours
Covers important Java syntax in detail and helps students prepare for the SCJP certification exam. Topics include: data types, loops, arrays, static vs. instance code, keywords, access modifiers, abstract classes and interfaces. Requires extensive lab work outside of class. PREREQUISITE: Introduction to OOP with Java or equivalent experience.

LSJ 8512 - Java SCJP Certification Training II (1 Credit)
1 lecture, .5 lab, 1.5 total contact hours
Covers advanced topics from the SCJP certification exam. Includes enumerations, collections, exceptions file I/O, serialization, regular expressions, and threads. Requires extensive lab work outside of class. Prerequisite: LSJ 8511 with an outcome of satisfactory (S) or equivalent knowledge.

LSJ 8520 - Java Developer Program (1 Credit)
1 lecture, .5 lab, 1.5 total contact hours
Presents topics related to the SCJD certification. Covers Swing and user interface design, client-server networking, object-oriented development, file I/O, and data sorting and presentation. Requires extensive lab work outside of class. Prerequisite: LSJ 8512 with an outcome of satisfactory (S) or equivalent knowledge.

LSJ 8530 - Introduction to Java-Micro Edition (1 Credit)
1 lecture, .5 lab, 1.5 total contact hours
Introduces Java programming tools and techniques for developing small applications for cell phones. Covers the Java ME specifications, vendor APIs, the MIDP User Interface, and the MIDP Game API. Requires lab work outside of class. Prerequisite: LSJ 8512 with an outcome of satisfactory (S) or equivalent knowledge.

LSJ 8550 - Java 3D Game Programming (1 Credit)
1 lecture, .5 lab, 1.5 total contact hours
Explores 3D game programming using Java. Enables students to learn important 3D graphics and game concepts with a powerful language without the complexities of other languages. Covers the Java 3D APE, Open GL for Java, JInput, and other gaming-related libraries. Requires extensive lab work outside of class. Prerequisite: LSJ 8512 with an outcome of satisfactory (S) or equivalent knowledge.

CPE Linux (LIX)

LIX 0004 - Linux Essentials (1-900 Credits)
.5 - 900 lecture, 1 - 900 lab, 0 - 900 clinical/other, 1.5 - 900 total contact hours
Focuses on configuring a Linux virtual machine, managing hardware, file operations, process management, basic security, and networking. This course helps prepare students to earn a Linux Professional Institute (LPI) Linux Essentials Certification. It will include lectures, practice questions, labs, and discussions needed to successfully pass LPI's official exam. Prerequisite: general computer or programming experience may be helpful.

LIX 8101 - Introduction to Python Programming (1 Credit)
.5 lecture, 1 lab, 1.5 total contact hours
Establish knowledge to become sufficient as a beginner Python programmer. Identify the benefits and usefulness of Python including excellent readability and uncluttered simple-to-learn syntax which helps beginners to utilize this programming language. Basic computer experience is required. Programming experience is preferred.
Typically offered: Fall, Spring, Summer

LIX 8103 - Intermediate Python Programming (1 Credit)
.5 lecture, 1 lab, 1.5 total contact hours
Explores complex areas of Python programming. Discovers how to use this knowledge to work with data structures. Develops custom scripts, GUI applications, and portable exe programs. Recommended Preparation: experience with Python or object-oriented programming.
Typically offered: Fall, Spring, Summer

LIX 8121 - Python for Data Analysis (1 Credit)
1 lecture, 1 total contact hours
This course utilizes Python libraries like Pandas, NumPy, and Matplotlib to handle complex data operations efficiently. Provides opportunities to prepare, clean, and structure data for analysis, uncover patterns, and present findings using compelling visualizations. Demonstrates practical, hands-on experience through real-world datasets and projects.
Typically offered: Fall, Spring, Summer

LIX 8123 - Forecasting with Python (2 Credits)
2 lecture, 2 total contact hours
This course covers the principles and techniques of predictive modeling using Python. Students will demonstrate time series analysis, statistical forecasting methods, and machine learning approaches. This course uses Python libraries such as pandas, statsmodels, and Prophet, to prepare data, develop forecasting models, and evaluate their performance. Provides an overview of the skills needed to develop and implement forecasting models to make informed data-driven decisions.
Typically offered: Fall, Spring, Summer

CPE Microsoft (LNT)

LNT 0001 - Generic MS Exam Voucher KPI (0-900 Credits)
0 - 900 lecture, 0 - 900 lab, 0 - 900 clinical/other, 0 - 900 total contact hours
Generic Microsoft Exam Voucher via Prometric Testing Centers.

LNT 0004 - Developing Microsoft Azure Solutions (1.5 Credits)
1 lecture, 1 lab, 2 total contact hours
Take an existing ASP.NET MVC application and expand its functionality as part of moving it to Azure. Learn how to build an application infrastructure in Azure, host web applications on the Azure platform, store SQL data and tabular data in Azure, design Cloud applications, automate integration with Azure resources, and secure Azure web applications. Prerequisites: Students must have experience working with the Azure platform. They should also have a general understanding of C# concepts for the lab scenario

LNT 0006 - Install/ Store/ Configure Win Ser 2016 (2 Credits)
1 lecture, 2 lab, 3 total contact hours
This five-week, ten-session course is the first course in the MCSA: Windows Server 2016 series. It is designed primarily for IT professionals who have some experience with Windows Server. Learn how to manage and computer storage by using Windows Server 2016. Understand the scenarios, requirements, and storage and compute options that are available and applicable to Windows Server 2016. Prerequisites: Experience working with Windows Server, general IT and networking knowledge.

LNT 0007 - Networking Windows Server 2016 (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Provides the fundamental networking skills required to deploy and support Windows Server 2016 in most organizations. Covers IP fundamentals, remote access technologies, and more advanced content including Software Defined Networking. Prerequisite: LNT0006 Installation, Storage, and Compute with Windows Server 2016 or equivalent experience.

LNT 0008 - Querying Data with Transact-SQL (1.5 Credits)
1 lecture, 1 lab, 2 total contact hours
This course is designed to give students a good understanding of the Transact-SQL language which is used by all SQL Server-related disciplines, namely, Database Administration, Database Development, and Business Intelligence. Write SELECT queries, query multiple tables, sort and filter data, use built-in functions, group and aggregate data types, work with table expressions and set operators, and program with T-SQL. Prerequisites: Basic knowledge of the Microsoft Windows operating system and its core functionality; working knowledge of relational databases.

LNT 0009 - Admin SQL Database Infrastructure (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Learn the skills to administer and maintain the SQL Server 2016 database infrastructure. The course is designed for developers of applications that deliver content from SQL Server databases. Learn how to authenticate and authorize users and access resources. Understand how to monitor and troubleshoot the SQL Server infrastructure. Prerequisites: basic knowledge of the MS Windows core functionality, working knowledge of Transact-SQL, working knowledge of relational databases, and some experience with database design.

LNT 0010 - Provisioning SQL Databases (0 Credits)
.5 lecture, 1 lab, 0 clinical/other, 1.5 total contact hours
Gain the knowledge and skills to provision a Microsoft SQL Server 2016 database, both on-premise and in Azure. Covers installing from new and migrating from an existing install. Learn to upgrade and configure SQL servers and manage databases and files. Prerequisites: basic knowledge of the MS Windows operating system and its core functionality, working knowledge of Transact-SQL, working knowledge of relational databases, and some experience with database design (LNT0009, Administering a SQL Database Infrastructure or equivalent experience).

LNT 0011 - Implementing a SQL Data Warehouse (1.5 Credits)
1 lecture, 1 lab, 2 total contact hours
Provides the knowledge and skills to provision a Microsoft SQL Server 2016 database. Covers SQL Server 2016 provision both on-premise and in Azure, and covers installing from new and migrating from an existing install. Focuses on hands-on work creating business intelligence (BI) solutions, including Data Warehouse implementation, ETL, and data cleansing. Prerequisites: basic knowledge of the Microsoft Windows operating system and its core functionality, working knowledge of relational databases, and some experience with database design.

LNT 0012 - Performance Tuning/Optimizing SQL DB (1.5 Credits)
1 lecture, 1 lab, 2 total contact hours
Provides students who manage and maintain SQL Server databases with the knowledge and skills to performance tune and optimize their databases. Covers SQL Server architecture, scheduling, waits, and I/O. Focuses on SQL Server memory and concurrency, along with query execution and query plan analysis. Covers tools and techniques to monitor, trace, and baseline SQL Server performance data. Prerequisites: basic knowledge of the Microsoft Windows operating system and its core functionality, working knowledge of database administration and maintenance, and working knowledge of Transact-SQL.

LNT 0013 - Microsoft Azure Developer Core Solutions (1.5 Credits)
1 lecture, 1 lab, 2 total contact hours
Helps you prepare for Microsoft's Azure Developer certification exam AZ-200: Microsoft Azure Developer Core Solutions. Designed for developers who already know how to code in at least one of the Azure-supported languages. Covers Azure architecture, design and connectivity patterns, and choosing the right storage solution for your development needs. Focuses on C#, Node.js, Azure CLI, Azure PowerShell, and JavaScript. Recommended: Students should have some experience with Azure and must be able to program in at least one Azure-supported language.

LNT 0014 - Microsoft Azure Developer Advanced Solutions (1.5 Credits)
1 lecture, 1 lab, 2 total contact hours
Helps you prepare for Microsoft's Azure Developer certification exam AZ-201: Microsoft Azure Developer Advanced Solutions. Defines asynchronous processing, autoscaling, long-running tasks, and distributed transactions. Learn how to integrate and manage APIs by using the API Management service, configure a message-based integration architecture, and develop an application message model. Covers how to integrate Azure Cognitive Services, like Computer Vision, QnA Maker, and natural language processing in your solution. Create and manage bots using the Bot Framework and Azure portal. Learn how to leverage Azure Time Series Insights, Stream Analytics and the IoT Hub for your IoT solution. Focuses on C#, Node.js, Azure CLI, Azure PowerShell, and JavaScript. Recommended: Students should have some experience with Azure and must be able to program in at least one Azure-supported language.

LNT 8486 - Developing ASP.NET MVC for Web Applications (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Investigate how to develop advanced ASP.NET MVC applications using the .NET Framework and technologies. Learn coding activities that enhance performance and scalability of website application. Gain knowledge in developing advanced web applications and creating websites that separate the user interface, data access, and application logic. You will be prepared for Microsoft certification exam 70-486 Developing ASP.NET MVC 4 Web Applications.

LNT 8600 - Introduction to Powershell (1 Credit)
.5 lecture, 1 lab, 1 total contact hours
Explores PowerShell, a scripting language and a working administrative shell available for Windows, Linux, and the Mac environments. Starts with understanding what PowerShell is, what you can do with it, and where it is available to use. Identifies techniques, features, and putting PowerShell to use in automating parts of your Windows-based IT work. Covers key concepts, tips, and usage of scripting, in addition to lab work to reiterate the material via hands-on work. Recommended Preparation: some IT Experience, such as CompTIA A+, MCSA Windows 10, Server 2012R2, or other relevant experience.

LNT 8765 - Provisioning SQL Databases (1 Credit)
.5 lecture, 1 lab, 0 clinical/other, 1.5 total contact hours
Gain the knowledge and skills to provision a Microsoft SQL Server 2016 database, both on-premise and in Azure. Covers installing from new and migrating from an existing install. Learn to upgrade and configure SQL servers and manage databases and files. Prerequisites: basic knowledge of the MS Windows operating system and its core functionality, working knowledge of Transact-SQL, working knowledge of relational databases, and some experience with database design (LNT8764, Administering a SQL Database Infrastructure or equivalent experience).

LNT 8900 - Microsoft Azure Fundamentals (0.5 Credits)
.5 lecture, 0 lab, .5 total contact hours
Identifies foundational level knowledge of cloud services and how those services are provided with Microsoft Azure. Covers general cloud computing concepts as well as general cloud computing models and services such as Public, Private and Hybrid cloud and Infrastructure-as-a-Service (IaaS), Platform-as-a-Service(PaaS) and Software-as-a-Service (SaaS). Explores some core Azure services and solutions, as well as key Azure pillar services concerning security, privacy, compliance and trust. Prepares for Microsoft certification exam AZ-900.
Typically offered: Fall, Spring, Summer

LNT 8901 - Azure Database Administrator Associate (1.5 Credits)
1 lecture, 1 lab, 2 total contact hours
Teaches how to implement and manage the operational aspects of cloud-native and hybrid data platform solutions built on Microsoft Azure data services and Microsoft SQL Server. Explores how to use a variety of methods and tools to perform day-to-day operations, including applying knowledge of using T-SQL for administrative management purposes. Prepares for Microsoft certification exam DP-300. Recommended Preparation: basic knowledge of the Microsoft Windows operating system and its core functionality; working knowledge of relational databases.
Typically offered: Fall, Spring

CPE Nonprofit and Vol Mgt (LVM)

LVM 8205 - Community Emergency Response Team Training (CERT) (1.5 Credits)
1.5 lecture, 0 lab, 1.5 total contact hours
A day hardly goes by where we don't hear about community emergencies. Fortunately, northern Illinois has been spared from recent local disasters but that may not always be the situation. Community Emergency Response Team (CERT) training prepares you to know what to do for your family, neighbors and community in the event of natural and manmade disasters. The program concludes with a mock disaster. Successful completion earns you a FEMA Certificate. Participants may qualify to volunteer as a Palatine Emergency Management Agency member. Includes all materials.

CPE Oracle DBA (LOR)

LOR 0005 - Oracle 12c: SQL Workshop 1 (0.5 Credits)
.5 lecture, .5 lab, 1 total contact hours
This course offers an introduction to Oracle Database 12c technology. You will learn the concepts of relational databases and powerful SQL (structured query language) programming. Discover essential SQL skills that allow developers to write queries against single and multiple tables, manipulate data in tables, and create database objects. Requires familiarity with data processing concepts and techniques.

LOR 0006 - Oracle Database 12c: Admin Workshop (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Designed to provide a firm foundation in administration of an Oracle Database. Gain a conceptual understanding of Oracle Database architecture and learn how to manage an Oracle Database in an effective and efficient manner. Covers both Database as a Cloud Service and the on-premises Oracle Database. Learn how to create database storage structures appropriate for the business applications supported by a database. Learn how to create users and administer database security to meet business requirements. Basic information on backup and recovery techniques is presented in this course. Prerequisite: Oracle Database 12c: SQL Workshop I or equivalent experience.

LOR 8601 - Oracle DB 11G: SQL Fundamentals (1 Credit)
.5 lecture, 1 lab, 1.5 total contact hours
Covers the fundamentals of SQL using Oracle Database 11g database technology. Explains concepts of relational databases and the powerful SQL programming language. Provides the essential SQL skills that allow developers to write queries against single and multiple tables, manipulate data in tables, and create database objects. Teaches single row functions to customize output, conversion functions and conditional expressions and group functions to report aggregated data. Demonstrations and hands-on practice reinforce the fundamental concepts. Utilizes Oracle SQL Developer as the main tool and SQL *Plus is introduced as an optional tool. Requires familiarity with data processing concepts and techniques.

LOR 8602 - Oracle Db 11g: Administration Workshop I (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Demonstrates the installation and maintenance of Oracle Database 11g. Provides a conceptual understanding of the Oracle database architecture and how its components work and interact with one another. Teaches how to create an operational database and properly manage the various structures in an effective and efficient manner. Includes performance monitoring, database security, user management and backup/recovery techniques. Reinforces topics with structured hands-on practices. Prerequisite: LOR 8601 or consent of instructor or program coordinator.

LOR 8603 - Oracle Db 11g: Administration Workshop II (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Explores concepts and architecture that support backup and recovery, along with varied situational implementation. Includes how to define and test your own backup and recovery scenarios. Teaches effective memory management, performance evaluation and tuning tasks, and the use of advisors. Includes flashback technologies, scheduling jobs inside and outside of the database, controlling system resource usage, and hands-on practices. Prerequisite: LOR 8602 or consent of instructor or program coordinator.

LOR 8604 - Oracle DB 11G: New Features for Administrators (2 Credits)
1 lecture, 2 lab, 3 total contact hours
Teaches new change management features and other key enhancements in Oracle Database 11g. Emphasizes the benefits and use of the new features in managing change, diagnosing and recovering from problems, ensuring high availability, improving scalability and performance, strengthening security and several other areas that concern database administrators. Prepares for the Oracle 11g DBA certification upgrade exam. Requires strong Oracle Database 10g concepts, consent of instructor of program coordinator.

CPE Project Management (LPM)

LPM 8002 - Workplace Communication and Interpersonal Skills (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Covers the skills needed to work effectively within a professional business and team environment. Understands team dynamics and how to resolve interpersonal conflict. Learns effective communication, business analysis, problem solving, and team development. Strengthen your business professional skills.

LPM 8010 - Business Systems Analyst (1 Credit)
.5 lecture, 1 lab, 1.5 total contact hours
Provides students business analysis knowledge and an understanding of the Systems Development Life Cycle. Examines strategies for analyzing business processes and demonstrates how to apply concepts and practical techniques. Teaches how to solve complex issues to analyze business and user needs, document requirements, and translate in system requirement specifications. Works with Microsoft Visio. Recommended Preparation: Project Management and Technical Business Writing experience.
Typically offered: Spring, Summer

LPM 8300 - Project Management Professional Certification Prep Review (2 Credits)
1.5 lecture, 1 lab, 2.5 total contact hours
Teaches experienced project managers, who desire to increase their project management skills, how to apply a standards-based approach to project management. Offers a job-related approach to successful project management across application areas and industries. Prepares students for the Project Management Institute, Inc. Project Management Professional Certification. Recommended preparation: Project management experience.
Typically offered: Fall, Spring, Summer

LPM 8400 - PMI Agile Certified Practitioner (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Reinforces knowledge of Agile principles and skills, including best practices in implementing an Agile environment. Focuses on course material intended for the experienced Agile Professional seeking to prepare for the PMI Agile Certified Practitioner® certification exam. The course is led by a PMI certified Instructor and will meet the Education PDUs required by the Project Management Institute. Recommended Preparation: Agile experience and secondary degree.
Typically offered: Fall, Spring, Summer

CPE Real Estate (LRE)

LRE 0002 - Broker Pre-Licensing (5 Credits)
5 lecture, 0 lab, 0 clinical/other, 5 total contact hours
This introductory 75-hour course plus the 15-hour course, LRE0003, allows you to sit for the Illinois Real Estate Broker license exam. All required topics are covered including license law, real property, agency, seller and buyer relationships, state and federal laws, marketing and market analysis, appraisal and contracts. Books are available at the HarperStore. To sit for the licensing exam, you must be 21 years of age and have a GED or be a HS graduate.

LRE 0003 - Applied Real Estate Principles (1 Credit)
1 lecture, 0 lab, 0 clinical/other, 1 total contact hours
This 15-hour course plus the 75-hour course, LRE8170, allows you to sit for the Illinois Real Estate Broker license exam. Apply what you've learned in the introductory course through case studies and role playing activities. All required topics are covered including listing presentations, buyer representations, purchase agreements, negotiating, closing costs, and anti-trust. To sit for the licensing exam, you must be 21 years of age and have a GED or be a HS graduate. Books are available at the HarperStore. Prerequisite:LRE8170

LRE 8016 - Real Estate Law - Commercial (3 Credits)
3 lecture, 0 lab, 3 total contact hours

LRE 8170 - Broker Pre-Licensing/60 Hours (4 Credits)
4 lecture, 4 total contact hours
Includes instruction for the Broker Pre-license Topics course (parts 1 and 2--60 classroom hours), an IDFPR state-mandated course under the Real Estate License Act of 2000. Meets part of the 75-hour broker pre-license course requirements necessary to qualify students to take the Illinois Real Estate License Examination administered by Applied Measurement Professionals (AMP/PSI) to obtain a Real Estate Broker license in the State of Illinois when the successful completion of this course is combined with the successful completion of the Broker Pre-License Applied Real Estate Principles interactive course (LRE 8171/15 classroom hours). Expects students to meet the state-mandated attendance requirements included in the course syllabus and pass a final exam with a grade of 75% or better to successfully complete this course. Requires those who sit for the state broker licensing exam to be at least 18 years of age as well as have a GED or be a high school graduate.

LRE 8171 - Applied Real Estate Principles (1 Credit)
1 lecture, 1 total contact hours
This 15-hour course plus the 75-hour course, LRE8170, allows you to sit for the Illinois Real Estate Broker license exam. Apply what you've learned in the introductory course through case studies and role playing activities. All required topics are covered including listing presentations, buyer representations, purchase agreements, negotiating, closing costs, and anti-trust. To sit for the licensing exam, you must be 21 years of age and have a GED or be a HS graduate. Books are available at the HarperStore. Prerequisite:LRE8170

LRE 8175 - Managing Broker Pre-License Applied Management and Supervision (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Allows students to sit for the Illinois Real Estate Managing Broker License exam along with the completion of the 30-hour Managing Broker Pre-License Topics course. Applies what you've learned in the introductory course through case studies and role-playing activities with 15 hours of interactive instruction. Covers all required topics including brokerage contract disputes with clients, minimum services activities/problems, team activities, commission disputes in office/co-op office, dual agency disclosure problems and escrow documents. Places a topical emphasis on short sale problems, foreclosure problems, clear title problems, confidentiality problems, ethics problems and internet/social media problems. Requires those who sit for the Illinois real estate managing broker licensing exam to be 20 years of age and have an active real estate broker's license.

LRE 8176 - Real Estate Law/Commercial (3 Credits)
3 lecture, 0 lab, 3 total contact hours
Focuses on American commercial real estate law. Learns about the anatomy of a commercial real estate transaction; the role of a paralegal in a commercial real estate transaction; the importance of title searches and surveys; and the role of leases, easements, and licenses. Reviews the process utilized to obtain commercial real estate mortgages and the role of a paralegal in preparing for a commercial real estate closing. Emphasizes the role of the paralegal in commercial real estate transactions. Discusses ethical issues dealing with commercial real estate.

LRE 8180 - 15 Hour Leasing Agent Pre-License (1 Credit)
15 lecture, 0 lab, 0 clinical/other, 15 total contact hours
This course allows students to sit for the Illinois Leasing Agent License Exam. Participants will learn about fair housing issues relating to residential leasing, advertising and marketing issues, leases and applications, credit reports, owner-tenant relationships, owner tenant laws, handling of funds, and environmental issues relating to residential real property. Note: There are strict state requirements for attendance and examination with a grade of 75% or better. Students must be 18 years of age and have a GED or be a high school graduate.

CPE Security Cert Prof (LSP)

LSP 8300 - Distributed Energy Resources (DER) in the Electrical Grid (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Introduces the concept of Distributed Energy Resources (DER) in the electrical grid and the standards that inform DER deployment. Requires no prior knowledge of the topic and is intended for students who are interested in exploring technical (e.g. engineering, chemistry, software), professional (e.g. architecture, marketing, finance), and operational (e.g. accounting, logistics) careers in the rapidly growing distributed energy industry. Gains a foundation in the basic electrical concepts that are needed to understand the more detailed considerations associated with DER in the grid. Provides detailed insights into topics concerning DER interconnection standards and regulations, DER networking standards like IEEE 2030.5, and cybersecurity. Key DER technologies such as solar, wind, energy storage, and electric vehicles are also covered in more depth.
Typically offered: Spring

LSP 8301 - Cybersecurity in the Smart Energy Environment (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Learns that with increasing numbers of IoT devices being connected to the Internet, cybersecurity has become a vital requirement for the safe, reliable, and secure operation of those devices. Introduces cybersecurity topics in general: what is the purpose cybersecurity, what are the cybersecurity threats, and how to protect against them. Examines in detail some key components of cybersecurity like encryption and the Public Key Infrastructure (PKI). Analyzes and applies cybersecurity specifically in the Smart Energy DER use case and the IEEE 2030.5 communication standard.
Typically offered: Spring

LSP 8302 - Solar Energy and Networking Basics (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Provides overview of data communication technologies, deployment techniques, and regulatory considerations associated with photovoltaic (PV) module rapid shutdown solutions. Gives a foundation in data communication concepts associated with PV module communication solutions and their regulated operating environments. Examines the evolution of DER networks based on the IEEE 2030.5 standard, how this evolution introduces cybersecurity risks, and how these risks can be mitigated. Students will acquire a foundation in the basic cybersecurity concepts that are needed to understand the more detailed considerations associated with securing DER in the grid.
Typically offered: Spring

LSP 8500 - Certified Information Systems Security Professional (2.5 Credits)
2 lecture, 1 lab, 3 total contact hours
Learn all eight CISSP Common Body of Knowledge (CBK) domains. Validate knowledge by meeting the necessary preparation requirements to qualify to sit for the CISSP certification exam. Additional CISSP certification requirements include a minimum of five years of direct professional work experience in two or more fields related to the eight CBK security domains, or a college degree and four years of experience. Prerequisite: CompTIA Network+, Security+, or equivalent experience.
Typically offered: Spring

CPE SocialMedia/MobileDev (LCW)

LCW 0003 - AWS Systems Operations (1.5 Credits)
1 lecture, 1 lab, 0 clinical/other, 2 total contact hours
This course covers the duties of those responsible for implementing, managing, and maintaining computer systems and a networking architecture in the Amazon Web Services (AWS) cloud environment platform. AWS supports an array of cloud service models, including Infrastructure-As-A-Service, Platform-As-A-Service, and Software-As-A-Service. The course provides students with the tools and knowledge they need to support existing cloud resources incorporated in these service models or on-premises resources that will eventually migrate to the cloud. Prerequisites: AWS Fundamentals and CompTIA Network+ or equivalent experience.

LCW 0004 - IOS Mobile App Development (1.5 Credits)
1 lecture, 1 lab, 0 clinical/other, 2 total contact hours
Expand your iOS App Development programming skills with Swift specialization. Apply your new expertise to authentic app development projects. Covers Xcode basics, Core iOS and Cocoa Touch frameworks, simple user interface creation, MVC architecture, and much more. Focuses on using Apple's components to access GPS and maps. By the end of this course, you will be able to create a basic Weather App using live data from the internet.

LCW 8510 - IOS App Development (3 Credits)
2 lecture, 2 lab, 4 total contact hours
This course prepares students to build mobile apps for Apple mobile devices using the language and tools, Swift and Xcode. Participants will apply MobileMakersEdu technologies to build an app, analyze error in code, and problem solve. This course provides a portfolio of apps and collection of skills that align with a professional workplace.

LCW 8602 - AWS Certified Solutions Architect (1.5 Credits)
1 lecture, 1 lab, 2 total contact hours
Covers the duties of those responsible for implementing, managing, and maintaining computer systems and a networking architecture in the Amazon Web Services (AWS) cloud environment platform as well as preparing students to take the AWS Certified Solutions Architect - Associate certification exam. Supports an array of cloud service models, including Infrastructure-As-A-Service, Platform-As-A-Service, and Software-As-A-Service. Introduces the tools and knowledge needed to support existing cloud resources incorporated in these service models or on-premises resources that will eventually migrate to the cloud. A credit card will be required to open an AWS account. The charges accrued during this class will be minimal if any. Recommended Preparation: Basic knowledge of operating systems like Windows OS, MacOS and/or Linux, networking, virtualization and comfortable working on the command line.
Typically offered: Fall, Spring, Summer

CPE Teacher Development (LTD)

LTD 0002 - Preparing for the TAP Exam (3 Credits)
3 lecture, 3 lab, 6 total contact hours
If you are interested in becoming an Illinois teacher, one requirement is to pass the Test of Academic Proficiency. This class prepares you to accomplish that goal. Participants will focus on reading comprehension, language arts and math. Passage of the Test of Academic Proficiency will be both a requirement for admission to Illinois teacher preparation programs and a requirement for candidates seeking initial Illinois educator certification. Boost your skills and confidence. Includes all materials. Can be repeated three times.

LTD 8200 - Fashion Design Dual Credit Training I (2 Credits)
2 lecture, 0 lab, 2 total contact hours
Provides mandatory training for high school educators who will be teaching FAS100 as a dual credit course with Harper College for the first time. Includes 30 lecture hours and offers professional development hours with a competency-based end assessment.

LTD 8201 - Fashion Design Dual Credit Training II (1 Credit)
1 lecture, 0 lab, 1 total contact hours
Provides 15 hours of mandatory instruction for high school educators who have successfully completed LTD 8200 (FAS100 Dual Credit Teachers Training I). Ensures a clear alignment with syllabus and guidelines following curriculum changes at Harper College. Completers can earn 15 professional development hours.

One Million Degrees (OMD)

OMD 8101 - One Million Degrees Seminar (1 Credit)
1 lecture, 1 total contact hours
Provides learning focused on community building, exploring what it takes to find success as a college student, and building professional development skills. Explore topics through guided group dialogue, self-reflection and guest speakers. Define who you are as a college student and professional, and find your way to graduation.
Start Smart

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