




# Early College Credit Curriculum Guide

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*2018-2019*

**Dual Credit and Credit by Exam**

(Updated February 15, 2018)



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## Dual Credit Courses

The courses below are offered under the Dual Credit program. Students participating in the Dual Credit program earn both high school and college credit simultaneously. When the class is complete, the student will receive a letter grade on both their high school and Harper College transcripts.

### Accounting/Bookkeeping

Course Description	Prerequisites	Campus Location	Participating High Schools	Textbook	Notes
<p><b>ACC100 Introductory Accounting (3 Credit Hours)</b></p> <p><b>D211 #B68602 “Accounting 1-Financial”</b></p> <p>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. Also included are 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 ACC101.</p>	None	High Schools	D211: Hoffman Estates, Fremd, Conant	<b>College Accounting</b> ISBN: 0078136679	
<p><b>ACC112 QuickBooks (2 Credit Hours)</b></p> <p><b>D211 #B69603 “QuickBooks”</b></p> <p>Provides students with applications of QuickBooks. Students apply accounting principles and manage accounting records like those used in small businesses.</p>	Prior or concurrent enrollment in ACC100 or ACC101 (District 211- # B68602 or #B488) or B38602	High Schools	D211: Hoffman Estates, Fremd, Conant	<b>Quickbooks Pro: 2014.</b> Conlon, T., Labyrinth, 2015.	(New QuickBooks course replaces ACC155 fall 2016.)

<p><b>CAS160 Introduction to Business Software Packages (3 Credit Hours)</b></p> <p><b>D211 #B66402 “Technology Applications I &amp; II”</b>  <b>D220- #3140732/314073 “Tech Certifications II”</b></p> <p>Provides an opportunity to become proficient in the use of currently popular software packages or suites. Includes word processing, spreadsheets, databases, presentation software and the integration of these applications.</p>	None	High Schools	<p>D211: Conant, Hoffman Estates, Schaumburg, Fremd</p> <p>D220:Barrington</p>	<p><b>Century 21 Computer Applications and Keyboarding.</b>  9th Edition. Hoggatt and Shank.  ISBN: 0538449179</p>	<p>Yearlong course at high school-First implementation Spring 2015 (D211), Spring 2017 (D220).</p>
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## Art

Course Description	Prerequisites	Campus Location	Participating High Schools	Textbook	Notes
<p><b>ART105 Introduction to Visual Art (3 Credit Hours)</b></p> <p><b>D211 #A65603 “Art in Contemporary Society”</b>  <b>D214 #02990 “College Introduction to Visual Art”</b></p> <p>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</p>	None	<p>Hoffman Estates</p> <p>D214</p>	<p>Hoffman Estates</p> <p>D214</p>	<p><b>Art Since 1940: Strategies of Being</b>            Jonathan Fineberg            ISBN-10:            0810919516</p>	

## Biology

Course Description	Prerequisites	Campus Location	Participating High Schools	Textbook	Notes
<p><b>BIO101-Biology Survey (3 credit hours)</b></p> <p><b>D211 #S64702 "Biology 2"</b></p> <p>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 interactions with, those kingdoms. (NOTE: Not Lab science credit.) IAI L1 900</p>	None	D211 High Schools	All D211 Schools	<b>Concepts and Connections</b> Campbell, Pearson.	Starting Spring 2017 at all D211 Schools (one semester course)  Common Assessment
<p><b>BIO103- Man and Environment (3 credit hours)</b></p> <p><b>D220 #804304 "Environmental Science Honors"</b></p> <p>Surveys and analyzes man's role as an environmental modifier. Ecological, social cultural, economic and political influences on environment are considered. The historical and current pollution problems and other environmental disruptions are analyzed and evaluated. Possible remedial courses of action are discussed and evaluated. (NOTE: Not Lab science credit.) IAI L1 905</p>	None	Barrington	Barrington	Instructor Open Source Text	Starting Spring 2015 at Barrington High School
<p><b>BIO135-Introduction to Human Anatomy and Physiology (4 credit hours)</b></p> <p><b>D211 #S63702 "Anatomy and Physiology"</b> <b>D214 TBD</b></p> <p>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 is assumed. (NOTE: Not Lab science credit)</p>	None	D 211 High Schools	All D211 Schools	<b>Essentials of Human Anatomy and Physiology.</b> Hole. 10th Edition. McGraw Hill, 2010 ISBN:0072965630	Starting Spring 2017 at all D211 Schools (one semester course)  Common Assessment
<p><b>BIO136- Introduction to Human Disease (3 credit hours)</b></p> <p><b>D211-TBD</b></p> <p>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 Lab science credit.)</p>	Knowledge of high school biology assumed.	D211 High Schools	All D211 Schools	<b>Human Diseases – A Systematic Approach (with CD).</b> Zelman, Raymond, Holdaway, Dafnis & Mulvihill. 8th Edition. Pearson, 2014 ISBN: 9780133424744	Taught at Palatine HS by Harper instructor. Starting Summer 2018.

## Education

Course Description	Prerequisites	Campus Location	Participating High Schools	Textbook	Notes
<p><b>ECE101 Introduction to Early Childhood Education (3 Credit Hours)</b></p> <p><b>D211 #H65702 “Advanced Early Childhood Education”</b>  <b>D214 #10500 “College Intro to Childhood Education/ 05920</b>  <b>“Practicum in Early Education” (All levels with assessments)</b></p> <p>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. Fifteen (15) hours of observation required.            (NOTE: The program’s health requirements must be completed prior to observation.)</p>	Program’s health requirements	High Schools	<p><b>All D211 Schools</b></p> <p><b>All D214 Schools</b></p>	<p><b>Early Childhood Education</b>            Casper            ISBN:            978-0-07-337848-</p>	Common Assessment

Course Description	Prerequisites	Campus Location	Participating High Schools	Textbook	Notes
<p><b>EDU201 Introduction to Education (3 Credit Hours)</b></p> <p><b>D220 #493303 “Introduction to Education”</b></p> <p>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.</p>	12th grade standing	Harper	Barrington	<p><b>Foundations Of American Education</b>            Johnson            ISBN            978-0-13-701252-7</p>	Course can be canceled with little notice if there are less than 10 enrolled students.

## Economics

Course Description	Prerequisites	Campus Location	Participating High Schools	Textbook	Notes
<p><b>ECO115 Consumer Economics</b> <b>(3 Credit Hours)</b></p> <p><b>D214 #06210 "Personal Finance"</b></p> <p>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.</p>	None	Harper	D214 schools	<b>Personal Finance</b> Kapoor-Diabay & Hughes ISBN:	Offered to D214 students as Credit by Exam.



## Electronics

Course Description	Prerequisites	Campus Location	Participating High Schools	Textbook	Notes
<p><b>ELT110 Introductory Electronics (4 Credit Hours)</b></p> <p><b>D211 #T67402 “Electronics Technology I”</b>  <b>D214 #10060 “Introductory Electronics”</b>  <b>D220 #497403 “Introductory Electronics”</b></p> <p>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.</p>	Completion of High school Algebra I and 10 <sup>th</sup> grade reading level.	Harper	All high schools in districts 211, 214, and 220	Course materials are distributed in class	
<p><b>ELT203 Digital Electronics (4 Credit Hours)</b></p> <p><b>D211 #T60802 “PLTW Digital Electronics”</b>  <b>D214 #06911/06912 “PLTW Digital Electronics”</b>  <b>D220 #316125 “PLTW Digital Electronics”</b></p> <p>Examines digital logic circuitry from the underlying structure of Field Effect Transistors (FETs) through how these devices are built into complex integrated circuits (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</p>	ELT110 with a grade of C or better or completion of equivalent High School PLTW coursework. (T302-PLTW Principles of Engineering) or D214 PLTW Introduction to Engineering design #06882	High School	All high schools in districts 214, and 220 D211 Palatine, Fremd, Conant, Hoffman Estates	<b>Digital Fundamentals</b> Floyd ISBN: 978-0-13-235923-8	
<p><b>ELT215 Industrial Control Systems (4 Credit Hours)</b></p> <p><b>D214 #10070 “Industrial Control Systems”</b>  <b>D220 #497413 “Electronics I”</b></p> <p>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.</p>	ELT 110 or RAC 105 with a grade of C or better, or consent of instructor	Harper	All high schools in districts 214, and 220	Course materials are distributed in class	

## English

Course Description	Prerequisites	Campus Location	Participating High Schools	Textbook	Notes
<p><b>ENG101 Composition</b> <b>(3 Credit Hours)</b></p> <p><b>D211 #E60503 “Expository Composition”</b> <b>D214 #03290 “College Composition”</b> <b>D220 #204704 “English 101”</b></p> <p>Emphasizes the writing of expository prose. Introduction to the critical reading of nonfiction prose. IAI C1 900</p>	<p>ACT English score of 19 or more and an ACT reading score of 20 or more; or SAT Reading/Writing score of 510; or Testing Center essay of 4 or 5</p>	<p>D214</p> <p>D220: Barrington</p>	<p>D211: All campuses</p> <p>D214</p> <p>D220: Barrington</p>	<p>No particular textbook is required.</p>	

## Fashion Design

Course Description	Prerequisites	Campus Location	Participating High Schools	Textbook	Notes
<p><b>FAS100 Industrial Sewing Methods</b> (3 Credit Hours)</p> <p><b>D211 #H67702 “ Fashion Construction Independent Study 2”</b> <b>D214 #05870 “Fashion Construction”</b> <b>D220 #403313 “Fashion III”</b></p> <p>Introduces students to the use and care of industrial sewing equipment, notions and supplies. Presents instruction in basic sewing techniques and their application to garment construction. (NOTE: This course is intended for students with little or no sewing experience.)</p>	None	<p>D220: Barrington</p> <p>D214: Buffalo Grove Rolling Meadows</p> <p>D211: Conant Fremd Hoffman Estates Palatine Schaumburg</p>	<p>D220: Barrington</p> <p>D214: Buffalo Grove Rolling Meadows</p> <p>D211: Conant Fremd Hoffman Estates Palatine Schaumburg</p>	<p><b>Professional Sewing Techniques for Designers</b> eText: ISBN-13 978-1-60901-416-2 Print: ISBN-10 1-56367-516-1, ISBN-13 978-1-56367-516-4 Authors: Julie Cole; Sharon Czachor</p>	
<p><b>FAS110 Costume History</b> (3 Credit Hours)</p> <p><b>D220 #491103 “Costume History”</b></p> <p>Introduces the elements of design and color in historical perspective. Surveys historical periods of time focusing on costumes. Examines the influences of social, political and economic forces on fashion in these periods..</p>	None	Harper	Barrington	<p><b>Survey Of Historic Costume</b> Tortora ISBN: 978-1-56367-806-6</p>	
<p><b>FAS112 Fashion Basics</b> (3 Credit Hours)</p> <p><b>D211 #H68303 “Design Independent Study 2”</b> <b>D214 #05860 “Fashion Merchandising”</b> <b>D220 #403013 “Fashion Design and Merchandising”</b></p> <p>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.</p>	None	<p>D220: Barrington</p> <p>D214: Buffalo Grove Rolling Meadows</p> <p>D211: Conant Fremd Hoffman Estates Palatine Schaumburg</p>	<p>D220: Barrington</p> <p>D214: Buffalo Grove Rolling Meadows</p> <p>D211: Conant Fremd Hoffman Estates Palatine Schaumburg</p>	<p><b>Apparel, Concepts and Practical Applications</b> by Beverly Kemp-Gatterson and Barbara L. Stewart ISBN: 1-56367-481-5</p>	

**Fashion, *continued***

Course Description	Prerequisites	Campus Location	Participating High Schools	Textbook	Notes
<p><b>FAS116 Fashion Industries Career Practicum and Seminar (3 Credit Hours)</b></p> <p><b>D211 – Not currently being offered.</b>  <b>D214 #10260, Fashion Industry Career Practicum &amp; Seminar</b>  <b>D220 #491303, Fashion Career Practicum</b></p> <p>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.</p>	<p>Concurrent employment of ten hours or more in a fashion related field is required. Students must have a fashion related job before the first day of class.</p>	<p>Harper</p>	<p>All high schools in districts 214, and 220</p>	<p><b>Fashion: The Industry &amp; Its Careers</b>            Granger            ISBN:            978-1-60901-225-0</p>	<p>Employment opportunities can include working in a clothing retail store, a department store selling fabric such as Jo-Ann Fabrics or Hancock Fabrics, a bridal store, a company that produces textiles, or a resale shop selling clothing.</p>

## Fire Science

Course Description	Prerequisites	Campus Location	Participating High Schools	Textbook	Notes
<p><b>FIS100 Fundamentals of Fire Protection (3 Credit Hours)</b></p> <p><b>D211 #W66303 "Introduction to Fire Science"</b>  <b>D214 #10130 "Introduction to Fire Science"</b>  <b>D220 #498303 "Fire Science"</b></p> <p>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.</p>	"B" high school grade average recommended	Harper	All high schools in districts 211, 214, and 220	<p><b>I Love A Firefighter - What The Family Needs To Know</b>            Kirschman            ISBN:            978-1-59385-063-0            and  <b>Fire &amp; Emergency Services Orientation &amp; Terminology</b>            Ifsta            ISBN:            978-0-13-278603-4</p>	
<p><b>FIS 121 Fire Behavior and Combustion (3 Credit Hours)</b></p> <p><b>D211 # W66403 "Fire Behavior and Combustion"</b>  <b>D214 #10140 "Fire Behavior &amp; Combustion"</b>  <b>D220 #498303 "Fire Science"</b></p> <p>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.</p>	None	Harper	All high schools in districts 211, 214, and 220	<p><b>Firefighters From TheHeart</b>            Chikerotis            ISBN:            978-1-4180-1423-0            and  <b>Fire Behavior &amp; Combustion Processes</b>            Shackelford            ISBN:            978-1-4018-8016-3</p>	

## Geography

Course Description	Prerequisites	Campus Location	Participating High Schools	Textbook	Notes
<p><b>GEG101 World Regional Geography (3 Credit Hours)</b></p> <p><b>D211- TBD</b></p> <p>Surveys the major world regions emphasizing their physical, cultural, economic and historical geographies; provides a geographic interpretation of major current events. IAI S4 900N</p>	No Prerequisite.	High Schools	<p><b>D211:</b> Palatine, Fremd, Conant, Schaumburg, Hoffman Estates</p>	<p><b>The Worlds Today: Concepts and Regions in Geography, 7<sup>th</sup> Edition,</b> Nijman, J., Muller, P., &amp; de Blij, Harm J.</p>	<p>One semester, first offered Spring 2018.</p> <p>Common Assessment</p>
<p><b>GEG150 GIS and Mapping Principles (3 Credit Hours)</b></p> <p><b>D214- #07920</b></p> <p>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. Also includes the fundamental principles of map use, interpretation and design.</p>	No Prerequisite.	High Schools	<p><b>D214:</b> Buffalo Grove</p>	<p><b>Introduction to Geospatial Technologies,</b> Shellito.. W. H. Freeman</p>	<p>One semester, first offered Fall 2017.</p> <p>Common Assessment</p>

## Graphic Arts

Course Description	Prerequisites	Campus Location	Participating High Schools	Textbook	Notes
<p><b>GRA103 Digital Imaging I (3 Credit Hours)</b></p> <p><b>D214 #06302 “Advanced Graphic Design”</b></p> <p>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.</p>	<p>No Prerequisite. Students who wish to continue their studies in GRA at Harper, will be required to take GRA101 in their first semester.</p>	<p>High Schools</p>	<p><b>D214:</b> Elk Grove ,Hersey, Rolling Meadows, Prospect</p>	<p>Visual Quickstart Guide <b>Photoshop CC</b>, Weinmann &amp; Lourekas Peachpit Press, ISBN-10:0-133-98046-4</p>	<p>Common Assessment</p>

## Health Careers

Course Description	Prerequisites	Campus Location	Participating High Schools	Textbook	Notes
<p><b>CNA101 Nursing Assistant Training (6 Credit Hours)</b></p> <p><b>D211 #R61402, W61403 at Harper “Certified Nursing Assistant”</b>  <b>D214 #10200 “Nursing Assistant Training” at Harper</b>  <b>D220 #494403 “Nursing Assistant Program”</b>  <b>D214 #08171/08172 “Nursing Assistant Training” at D214</b></p> <p>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 course is approved by the Illinois Department of Public Health, Office of Health Regulations and successful completion is required for application for the Nurse Aide Competency exam.</p> <p>NOTE: Students are required to have a valid Social Security Number, pass a criminal background check, and meet health requirements. Special fees apply.</p>	<p>16 year old Junior or Senior.</p> <p>Must have ability to lift, move, and transfer patients. Students must have health insurance, meet all health requirements, pass a criminal background check, and have eligibility to work in the United States. All above requirements will be reviewed in the mandatory attendance Information Session at the beginning of each semester.</p> <p>Prerequisite:            ENG 100 or ENG 101 with a grade of C or better; or            ESL 073 with a grade of B or better; or            RDG 090 or RDG 099 with a grade of C or better; or an ACT Reading score of 20 or higher, or required placement test scores; SAT 510 or better; English placement Essay-3 or better.</p>	<p>Harper            Conant            Palatine            Wheeling            Elk Grove</p>	<p>All students in districts 211, 214, and 220 can take this class at Harper.</p> <p>The course is also offered at Conant, Elk Grove, Palatine, and Wheeling High Schools.</p> <p>Fremd students attend Palatine. Hoffman/Schaumburg students attend Conant.</p>	<p><b>Lippincott's Textbook For Nursing Assistants</b>            W/Wkbk And Dvd's            Carter            ISBN:            978-1-4514-4276-2</p>	<p>Student out-of-pocket cost for the course is approximately \$200.00 - \$400.00. This includes a criminal background check, health requirements, uniform, CPR certification, required supplies and materials, cap and gown for graduation, and state competency exam. Some health requirements may be covered by insurance.</p> <p>Proof of valid health insurance is required for this course.</p> <p>Costs can vary by semester and will be reviewed in class.</p>
<p><b>HSC105 Introduction to Health Care Today (2 Credit Hours)</b></p> <p><b>D211 # W61303 “Health Occupations”</b>  <b>D214 #10180 “Introduction to the Health Care Field”</b>  <b>D220 #494103 “Introduction to Health Care”</b></p> <p>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.</p>	<p>None</p>	<p>Harper</p>	<p>All high schools in districts 211, 214, and 220</p>	<p><b>Introduction To Health Care</b>            Mitchell            ISBN:            978-1-4354-8755-0</p>	



**Health Careers, *continued***

Course Description	Prerequisites	Campus Location	Participating High Schools	Textbook	Notes
<p><b>HSC106 Health Occupations Career Observation (1.5 Credit Hours)</b></p> <p><b>D211 #W61503 “Health Occupations Observational Internship”</b>  <b>D214 #10190 “Health Occupations Career Observation”</b>  <b>D220 #494303 “Health Career Observation”</b></p> <p>Provides students an opportunity to observe selected occupations within a hospital health care setting. The student will attend 13 two-hour sessions under the supervision of the instructor and departmental specific mentors.</p> <p>The first three weeks of the course are devoted to orientation and completion of health requirements for the clinical site. All health requirements must be met by the first day of observation at the student’s assigned hospital. The instructor will work with the students in class to ensure these requirements are met. Proof of having met the health requirements and a drug free status, are conditions of observing at the hospitals.</p>	<p>Prior or concurrent enrollment in HSC 105 with a grade of C or better.</p>	<p>Harper</p>	<p>All high schools in districts 211, 214, and 220</p>	<p>None</p>	<p>Student out-of-pocket cost for health requirements is approximately \$200.00.</p> <p>Proof of valid health insurance is also required for this course.</p> <p>Costs can vary by semester and will be reviewed in class.</p> <p>Offering Summer 2018 through D211.</p>
<p><b>HSC112 Medical Terminology (2 Credit Hours)</b></p> <p><b>D211 #R61302 “Health Career Exploration and Medical Terminology”</b>  <b>D214 #06640 “Medical Terminology” at Harper</b>  <b>D220 #494203 “Medical Terminology”</b></p> <p>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.</p>	<p>None</p>	<p>Harper  Conant  Fremd  Hoffman E.  Palatine  Schaumburg  Wheeling</p>	<p>All students in districts 214 &amp; 220 can take this class at Harper.</p> <p>The course is also offered for Dual Credit at all D211 High Schools.</p> <p>The course is offered for Credit by Exam at Wheeling HS.</p>	<p><b>Medical Language</b>  Turley  ISBN:  978-0-13-505578-6</p>	<p>Students taking course at D214 campus may take credit by exam</p>

## Heating, Ventilation, Air Conditioning (HVAC), and Refrigeration

Course Description	Prerequisites	Campus Location	Participating High Schools	Textbook	Notes
<p><b>RAC103 Heating Principles (4 Credit Hours)</b></p> <p><b>D211 #W64803 “Heating Principles”</b>  <b>D214 #10150 “Heating Principles”</b>  <b>D220 #497313 “Heating Principles”</b></p> <p>Introduction course for Dual Credit students. Describes sources and methods of producing heat for residential, commercial and industrial systems. Develops skills in testing, adjusting and replacing heating system components.</p>	<p>Successful completion of high school Algebra is recommended.</p> <p>To ensure timely completion of all requirements, students must contact the RAC Program Coordinator, Jose Vital, before their first day of class. He can be contacted at 847-925-6823.</p>	Harper	All high schools in districts 211, 214, and 220	<p><b>Rac 103 Five Dvd Set</b>  Harper and  <b>Refrigeration &amp; Air Cond Tech (W/Cd)</b>  Whitman  ISBN:  978-1-4283-1936-3</p>	<p>This is the first required course in the sequence. Course is structured to meet once a week for 4-5 hours including lecture and lab. Additional lab time outside of scheduled class time is required for assessment of skills.</p>
<p><b>RAC101 Refrigeration Fundamentals (4 Credit Hours)</b></p> <p><b>D211 #W68303 “Refrigeration Fundamentals”</b>  <b>D214 #10080 “Refrigeration Fundamentals”</b>  <b>D220 #497323 “Refrigeration Fundamentals”</b></p> <p>Introduces vocabulary, concepts and scientific principles used in the refrigeration industry. Develops skills in pipe fitting, use of hand tools and operation of instruments used in the refrigeration trade.</p>	None	Harper	All high schools in districts 211, 214, and 220	<p><b>Rac 101 Four Cd Set</b>  Harper and  <b>Refrigeration &amp; Air Cond Tech (W/Cd)</b>  Whitman  ISBN:  978-1-4283-1936-3</p>	<p>Course is structured to meet once a week for 4-5 hours including lecture and lab.</p> <p>Additional lab time outside of scheduled class time is required for assessment of skills.</p>
<p><b>RAC105 Heating and Cooling Controls (4 Credit Hours)</b></p> <p><b>D211 #W68505 “Heating Cooling Controls”</b>  <b>D214 #10160 “Heating and Cooling Controls”</b></p> <p>Describes the purposes and principles of operation and causes of failure in electrical components common to residential and small commercial systems. Emphasizes wiring schematics and diagrams.</p>	<p>RAC103 with a C or better</p> <p>To ensure timely completion of all requirements, students must contact the RAC Program Coordinator, Jose Vital, before their first day of class. He can be contacted at 847-925-6823.</p>	Harper	All high schools in districts 211 and 214	<p><b>Rac 105 Five Cd Set</b>  Harper and  <b>Refrigeration &amp; Air Cond Tech (W/Cd)</b>  and  <b>Electricity For Refrigeration, Heating &amp; Air Cond</b>  Smith  ISBN:  978-1-1110-3874-8</p>	<p>Course is structured to meet once a week for 4-5 hours including lecture and lab.</p> <p>Additional lab time outside of scheduled class time is required for assessment of skills.</p>

## Heating, Ventilation, Air Conditioning (HVAC), and Refrigeration, *continued*

Course Description	Prerequisites	Campus Location	Participating High Schools	Textbook	Notes
<p><b>RAC102 Refrigeration Systems (4 Credit Hours)</b></p> <p><b>D211 #W68903 “Refrigeration Systems”</b>  <b>D214 #10090 “Refrigeration Systems”</b></p> <p>Continues to develop principles and concepts learned in RAC 101. Familiarizes students with components and accessories added to basic refrigeration systems for special applications. Develops trouble diagnosing procedures.</p>	<p>RAC101 with a C or better</p> <p>To ensure timely completion of all requirements, students must contact the RAC Program Coordinator, Jose Vital, before their first day of class. He can be contacted at 847-925-6823.</p>	<p>Harper</p>	<p>All high schools in districts 211 and 214</p>	<p><b>Rac 102 Five Cd Set</b>  Harper  and  <b>Refrigeration &amp; Air Cond Tech (W/Cd)</b>  Whitman  ISBN:  978-1-4283-1936-3</p>	<p>Course is structured to meet once a week for 4-5 hours including lecture and lab.</p> <p>Additional lab time outside of scheduled class time is required for assessment of skills.</p>

## Hospitality Management

Course Description	Prerequisites	Campus Location	Participating High Schools	Textbook	Notes
<p><b>FSM114 Food Standards and Sanitation (2 Credit Hours)</b></p> <p><b>D211 #H66502 "Food Standards and Sanitation"</b>  <b>D214 #05712 "Culinary Arts"/ "ProStart 1"(year-long course at HS)</b></p> <p>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.</p>	None	<p><b>D214:</b>            Buffalo Grove            Elk Grove            Rolling Meadows</p> <p><b>D211:</b>            Conant            Fremd            Hoffman Estates            Palatine            Schaumburg</p>	<p><b>D214:</b>            Buffalo Grove            Elk Grove            Rolling Meadows</p> <p><b>D211:</b>            Conant            Fremd            Hoffman Estates            Palatine            Schaumburg</p>	<p><b>Servsafe: Coursebook</b>            Nra            ISBN:            9780133075847</p>	<p>Harper awards credit in the Fall for Wheeling and Buffalo Grove and in the Spring semester for the completion of <b>#05712</b> for D214, EG, and RM. and <b>#H66702</b> for D211.</p>
<p><b>FSM109 Introduction to Food Prep/Production (4 Credit Hours)</b></p> <p><b>D211#H667 "Culinary Arts"</b>  <b>D214 #05802 "Culinary Arts"/ "ProStart 2"(year-long course at HS)</b></p> <p>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.</p>	Starting Fall 2017: FSM 114 or Food Handlers certificate.	<p><b>D214:</b>            Buffalo Grove            Rolling Meadows</p> <p><b>D211:</b>            Conant            Fremd            Hoffman Estates            Palatine            Schaumburg</p>	<p><b>D214:</b>            Buffalo Grove            Rolling Meadows</p> <p><b>D211:</b>            Conant            Fremd            Hoffman Estates            Palatine            Schaumburg</p>	<p><b>Professional Cooking, 8<sup>th</sup> edition</b>            W. Gisslen,            Wiley Publishing.</p>	<p>Harper awards credit in the Spring semester for the completion of <b>#05802</b> for D214.</p>
<p><b>FSM111 Introduction to the Hospitality Industry (3 Credit Hours)</b></p> <p><b>D214 #05802 "Culinary Arts"/ "ProStart 2" (year-long course at HS)</b></p> <p>Orients students to the hospitality industry, its organizational structure and integration of the modern industry components. Operational considerations are discussed. Career opportunities are explored.</p>	None	<p><b>D214:</b>            Buffalo Grove            Rolling Meadows</p>	<p><b>D214:</b>            Buffalo Grove            Rolling Meadows</p>	<p><b>On Cooking</b>            Labensky &amp; Martel            ISBN:            9780137155767</p>	<p>Harper awards credit in the Spring semester for the completion of <b>#05802</b> for D214.</p>

**Hospitality Management, *continued***

Course Description	Prerequisites	Campus Location	Participating High Schools	Textbook	Notes
<p><b>FSM213 Seminar and Internship (3 Credit Hours)</b></p> <p><b>D214 #09870 Internship Program</b></p> <p>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..</p>	<p>Waived for Dual Credit students</p>	<p><b>D214:</b> Buffalo Grove Elk Grove Rolling Meadows</p>	<p><b>D214:</b> Buffalo Grove Elk Grove Rolling Meadows</p>	<p>None</p>	

## Law Enforcement and Justice Administration

Course Description	Prerequisites	Campus Location	Participating High Schools	Textbook	Notes
<p><b>LEJ101 Introduction to Criminal Justice</b> <b>(3 Credit Hours)</b></p> <p><b>D211 #W61603 "Introduction to Criminal Justice"</b> <b>D214 #10100 "Introduction to Criminal Justice"</b> <b>D220 #498103 "Introduction to Criminal Justice"</b></p> <p>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</p>	None	Harper	All high schools in districts 211, 214, and 220	<b>Criminal Justice In Action 6/E</b> Gaines ISBN: 978-0-495-91355-9	
<p><b>LEJ104 Corrections</b> <b>(3 Credit Hours)</b></p> <p><b>D211 # W61703 "Introduction to Corrections"</b> <b>D214 #10120 "Introduction to Corrections"</b></p> <p>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</p>	None	Harper	All high schools in districts 211 and 214	<b>Corrections In The 21St Century</b> Schmalleger ISBN: 978-0-07-802647-8	
<p><b>LEJ116 Forensics</b> <b>(3 Credit Hours)</b></p> <p><b>D211 #W61903 "Introduction to Forensics"</b> <b>D220 #498203 "Forensics for Criminal Justice"</b></p> <p>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.</p>	None	Harper	Barrington Conant Fremd Hoffman E. Palatine Schaumburg	<b>Techniques Of Crime Scene Investigation</b> Fisher ISBN: 978-1-4398-1005-7	

## Literature

Course Description	Prerequisites	Campus Location	Participating High Schools	Textbook	Notes
<p><b>LIT206 World Literature to 1800</b> <b>(3 Credit Hours)</b></p> <p><b>D214 #04080, College Western Literature &amp; Thought 1</b></p> <p>Presents selected works of universal significance contributed by people and civilizations from ancient times to 1800. IAI H3 906</p>	None			<p><b>The Longman Anthology of World Literature, Vol 1 (A-C)</b> Damrosch, David and <b>The Norton Anthology of World Literature</b> Lawell, Sarah</p>	
<p><b>LIT207 World Literature Since 1800</b> <b>(3 Credit Hours)</b></p> <p><b>D214 #04090, College Western Literature &amp; Thought 2</b></p> <p>Continues LIT 206. Selected works of universal significance contributed by people and civilizations from 1800 to the present. IAI H3 907</p>	None			<p><b>The Norton Anthology of World Literature</b> Lawell, Sarah</p>	

## Maintenance

Course Description	Prerequisites	Campus Location	Participating High Schools	Textbook	Notes
<p><b>MNT115 Basic Carpentry</b> (2 Credit Hours)</p> <p><b>D211 # T64602 “Building Construction”</b> <b>D214 #06191 and #06192 “Practical Architectural Construction-PAC” (first year students)</b></p> <p>Covers basic knowledge of wood materials, products for construction, framing and safety. Techniques for using measuring, layout and hand tools are covered. Principles of stationary and portable power tools including pneumatic nailers will be demonstrated.</p>	None	<p>All D214 schools</p> <p>D211: Conant Hoffman Estates Rolling Meadows Palatine Schaumburg Fremd</p>	<p>All District 214 high schools</p> <p>D211: Conant Hoffman Estates Palatine Schaumburg</p>	<p><b>Carpentry &amp; Building Construction</b> Feirer ISBN: 9780078797842</p>	<p>D214 does not have a separate course number for MNT115 and MNT215. Students take both 06191 and 06192 their first year. The first year equals our MNT115. Students can repeat both course numbers again their 2<sup>nd</sup> year. When they do, they receive credit for our MNT215.</p>
<p><b>MNT215 Commercial Carpentry</b> (2 Credit Hours)</p> <p><b>D211# T64702 “Building Construction Independent Study”</b> <b>D214 #06191 and #06192 “Practical Architectural Construction-PAC” (second year students)</b></p> <p>Covers advanced framing with floor and roof trusses, structural steel beams and columns BCI-Joists and GlueLam girders. Metal stud framing techniques for commercial codes are developed both field cut and shop fabrication of building walls and roofs.</p>	Prerequisite: MNT115 with a grade of C or better.	<p>All D214 schools</p> <p>D211: Conant Hoffman Estates Rolling Meadows Palatine Schaumburg Fremd</p>	<p>All District 214 high schools</p> <p>D211: Conant Hoffman Estates Palatine Schaumburg</p>	Same as above	<p>D214 does not have a separate course number for MNT115 and MNT215. Students take both 06191 and 06192 their first year. The first year equals our MNT115. Students can repeat both course numbers again their 2<sup>nd</sup> year. When they do, they receive credit for our MNT215.</p>



## Manufacturing

Course Description	Prerequisites	Campus Location	Participating High Schools	Textbook	Notes
<p><b>MFT102-Introduction to Manufacturing and Safety (4 Credit Hours)</b></p> <p><b>D211 #T64301 “Advanced Manufacturing Level 2”</b> (First semester)  <b>D214 #09631 “Advanced Machine Technology”</b> (First Semester)</p> <p>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).</p>	None	<p>D211: Schaumburg and Palatine</p> <p>D214: Wheeling Rolling Meadows Elk Grove</p>	<p>D211: Schaumburg and Palatine</p> <p>D214: Wheeling Rolling Meadows Elk Grove</p>	<p><b>High-Performance Manufacturing.</b> Manufacturing Skill Standards Council, 2006</p> <p><b>Basics of Occupational Safety.</b> Prentice Hall, 2010 ISBN: 9780135026137</p>	<p>Starting Fall 2014 -1st semester at Schaumburg and Palatine.</p> <p>Starting Fall 2014 -1st semester at Wheeling (block schedule), Rolling Meadows, Elk Grove.</p>
<p><b>MFT104-Quality and Measurement (2 Credit Hours)</b></p> <p><b>D211 # T63402 “Advanced Manufacturing Level 2”</b> (2<sup>nd</sup> semester)  <b>D214 #09641 “Advanced CNC Machining”</b> (1<sup>st</sup> semester)</p> <p>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 Certifications through the Manufacturing Skills Standards Council (MSSC).</p>	Prerequisite: Prior or concurrent enrollment in MFT 102 with a grade of C or better.	<p>D211: Schaumburg and Palatine</p> <p>D214: Wheeling Rolling Meadows Elk Grove</p>	<p>D211: Schaumburg and Palatine</p> <p>D214: Wheeling Rolling Meadows Elk Grove</p>	<p><b>Blueprint Reading Basics,</b> ISBN 9780831131258 and <b>High Performance Manufacturing,</b> MSSC, 20069</p>	<p>Starting Spring 2015 at Wheeling (block schedule); Fall 2015 at Rolling Meadows and Elk Grove.</p> <p>Starting Spring 2015 for Schaumburg and Palatine.</p>
<p><b>MFT105-Machining Processes I (4 Credit Hours)</b></p> <p><b>D211 # T64201 “Advanced Manufacturing Level 1”</b> (First Semester)  <b>D214 #09632 “Advanced Machine Technology”</b></p> <p>Covers fundamentals of machine shop theory and safe practice. Provides familiarization with tools, equipment, and practices of tool, die, and precision metal working industries. Includes introduction to mills, drill press, lathes, and surface grinders. Students are provided Classroom and laboratory learning experiences while making a working tool. Students may earn NIMS credentials in Lathe, Drill Press, Bench work and Layout.</p>	None	<p>D211: Schaumburg and Palatine</p> <p>D214: Wheeling Rolling Meadows Elk Grove</p>	<p>D211: Schaumburg and Palatine</p> <p>D214: Wheeling Rolling Meadows Elk Grove</p>	<p><b>Precision Machining Technology,</b> ISBN: 9781435447677</p>	<p>Starting Fall 2014 -1st semester at Schaumburg and Palatine.</p> <p>Starting Fall 2014 at Wheeling (block schedule); Spring 2015 (Rolling Meadows and Elk Grove)</p>

<p><b>MFT108-Manufacturing Processes (3 Credit Hours)</b></p> <p><b>D211 #T64401 “Advanced Manufacturing Level 3” (1<sup>st</sup> Semester)</b></p> <p>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 and the types of processes used in manufacturing including machining, casting and assembly.</p>	<p>Prerequisite: MFT102 with a grade of C or better.</p>	<p>D211: Schaumburg and Palatine</p>	<p>D211: Schaumburg and Palatine</p>	<p><b>High-Performance Manufacturing. MSSC, 2006</b></p>	<p>Starting Fall 2015 -1st semester at Schaumburg and Palatine.</p>
<p><b>MFT109-Introduction to Manufacturing Maintenance (2 Credit Hours)</b></p> <p><b>D211 # T64402 “Advanced Manufacturing Level 3” (2<sup>nd</sup> Semester)</b></p> <p>Provides a basic understanding of tools and equipment used in manufacturing and knowledge of how to improve productivity through predictive and preventive maintenance.</p>	<p>Prerequisite: MFT102 with a grade of C or better.</p>	<p>D211: Schaumburg and Palatine</p>	<p>D211: Schaumburg and Palatine</p>	<p><b>High-Performance Manufacturing. MSSC, 2006</b></p>	<p>Starting Spring 2016 - 2nd semester at Schaumburg and Palatine.</p>
<p><b>MFT119-Manufacturing Internship (2 Credit Hours)</b></p> <p><b>D214 #09870 (09851 in Summer) -Internship</b></p> <p>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 skills. The student must complete a minimum of 100 hours at the work site. NOTE: Students must also have NCRC Exam Level Silver and four MSSC Certificates prior to enrolling in this course.</p>	<p>MFT 102, MFT104, MFT108 and MFT109 with a C or better. (Or All four MSSC Certifications.) Evidence of 100 hours in a Manufacturing Internship.</p>	<p>D214: Buffalo Grove, Elk Grove, Hersey, Prospect, Rolling Meadows, Wheeling</p>	<p>D214: Buffalo Grove, Elk Grove, Hersey, Prospect, Rolling Meadows, Wheeling</p>	<p><b>None</b></p>	<p>Starting Fall 2014 (Also offered Spring or Summer)</p>
<p><b>MFT120- Machining Processes II (3 Credit Hours)</b></p> <p><b>D211 #T64202 “Advanced Manufacturing Level 1” (2nd semester)</b>  <b>D214 #09642 “Advanced CNC Manufacturing” (2<sup>nd</sup> semester)</b></p> <p>Covers advanced machine shop theory with emphasis on safe practices and applications. Includes lathes, grinders (I.D., O.D. and surface), milling machines and tool grinders. Studies production machining, feed and speed applications and quality control techniques applied to precision machining. Introduces gage blocks, height gages, magnetic sine plate and modern indexable tooling. Students may earn NIMS credentials Mill 2, Lathe 2, and Grinding 1.</p>	<p>MFT105 and MTH097 with grades of C or better/college level MTH placement.</p>	<p>D211: Schaumburg and Palatine  D214: Wheeling. Rolling Meadows and Elk Grove</p>	<p>D211: Schaumburg and Palatine  D214: Wheeling. Rolling Meadows and Elk Grove</p>	<p><b>Precision Machining Technology, ISBN 9781435447677</b></p>	<p>Spring 2015 (Wheeling) Spring 2016 (Rolling Meadows and Elk Grove)</p>

<p><b>MFT123- Introduction to CNC Machining (3 Credit Hours)</b></p> <p><b>D211 #T64302 “Advanced Manufacturing Level 2” (2nd semester)</b></p> <p>Introduces setup and operation of CNC machining and turning centers. Teaches CNC machine tool controls through laboratory experiences and the manufacture of pre-programmed parts including part holding techniques, alignment, process planning, tooling for CNC machine tools, and inspection of machined products. Students may earn NIMS Level 1 CNC Operator credential.</p>	<p>MFT 120 with a grade of C or better.</p>	<p>D211: Schaumburg and Palatine</p>	<p>D211: Schaumburg and Palatine</p>	<p><b>CNC Programming Handbook,</b> ISBN: 9780831133474</p>	<p>Starting Spring 2015 at Schaumburg and Palatine. (MFT104 and MFT123 earned in same semester.)</p>
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## Math

Course Description	Prerequisites	Campus Location	Participating High Schools	Textbook	Notes
<p><b>MTH101 Quantitative Literacy (4 Credit Hours)</b></p> <p><b>D211 #M63502 “Quantitative Literacy”</b>  <b>D214 #04970 “ College Mathematical Applications 101”</b>  <b>D220- #204724 “Math 101”</b></p> <p>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; solving mathematical finance problems; and selecting and using appropriate approaches and tools in formulating and solving real-world problems. IAI M1 901</p>	<p>Math ACT score of at least 22; ALEKS score of at least 46 <b>or</b> Compass Algebra score of at least 53, <b>or</b> Passing Threshold (70%) on MTH 080 final. SAT Score of at least 510</p>	<p>All D211 schools</p> <p>All D214 schools</p> <p>Barrington HS</p>	<p>All D211 schools</p> <p>D214: Wheeling</p>	<p><b>Thinking Mathematically</b> Blitzer ISBN: 978-1-2567-3759-9</p> <p>Online textbook through MathXL for School.</p>	<p>One semester course (Power of 15)</p> <p>Common Assessment</p>
<p><b>MTH103 College Algebra (3 Credit Hours)</b></p> <p><b>D211 #M64802 “Advanced Algebra 2”/ ”Pre-Calculus”</b>  <b>D214 #04401/04402 “College Algebra”</b></p> <p>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.</p> <p>NOTE: This course does not fulfill the math requirement for the AA or AS degree.</p>	<p>Math ACT score of at least 22; <b>or</b> ALEKS score or 46 <b>or</b> Compass Algebra score of at least 53 and at least C- in both semesters of HS Geometry, <b>or</b> Compass Algebra score of at least 53 and Compass Geometry score of at least 46, <b>or</b> Passing Threshold (70%) on MTH 080 final and Compass Geometry score of at least 46. SAT score of at least 510</p>	<p>D211: Hoffman Estates</p> <p>All D214 schools</p>	<p>Hoffman Estates</p>	<p><b>College Algebra with Connect Math hosted by ALEKS 52W Access Card</b> Miller, ISBN: 9781259821714</p>	<p>One semester course (Power of 15)</p> <p>Common Assessment</p>

**Math, continued**

Course Description	Prerequisites	Campus Location	Participating High Schools	Textbook	Notes
<p><b>MTH202 Calculus with Analytic Geometry III (5 Credit Hours)</b></p> <p><b>D214 #04981, College Calculus 3</b></p> <p>Studies three-dimensional vectors, solid analytic geometry, vector-valued functions, partial derivatives, multiple integrals, Green's theorem, surface integrals, divergence theorem, and Stoke's theorem. IAI M1 900-3, IAI MTH 903</p>	<p>MTH201, Calculus with Analytic Geometry II (or equivalent) with a grade of C or better, or AP score of 3, 4 or 5 in AP Calculus (BC)</p>	<p>Wheeling, Buffalo Grove</p>	<p>All D214 Schools</p>	<p><b>Calculus Multivariable</b> Anton ISBN: 978-0-470-18346-5</p>	
<p><b>MTH212 Differential Equations (3 Credit Hours)</b></p> <p><b>D214 #04982, Differential Equations</b></p> <p>Continues MTH 202. 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 202 with a grade of C or better.</p>	<p>MTH202 or D214 course #04981, College Calculus 3 with a grade of C or better</p>	<p>Wheeling, Buffalo Grove</p>	<p>All D214 Schools</p>	<p><b>First Course In Diff Equations Classic</b> Zill ISBN: 978-0-534-37388-7</p>	

## Networking

Course Description	Prerequisites	Campus Location	Participating High Schools	Textbook	Notes
<p><b>NET105 Introduction to Operating Systems (3 Credit Hours)</b></p> <p><b>D211 # -</b> <b>D220 # - Not currently being offered</b></p> <p>Provides students with a hands-on introduction to operating systems and related concepts. Includes hardware, software, file systems, directory structures, files and attributes, text editors, applications, and maintenance. Compares and contrasts GUI and command line interfaces in a variety of current operating systems.</p>	None	Harper College	<p>All D211 and D220 high schools when taught at Harper</p> <p>D214 is not interested in offering this course at this time.</p>	<p><b>Guide To Parallel Operating Systems W/Windows 7 And Linux</b> Carswell ISBN: 978-1-1115-4370</p>	<p>Offered both as blended and internet only course structure when taught at Harper.</p> <p>Common Assessment</p>
<p><b>NET111 A+ Hardware (3 Credit Hours)</b></p> <p><b>D211#T67301, Computer Repair</b> <b>D214 #06741, Computer Repair A+ Certification</b></p> <p>Provides students with experience installing, configuring, maintaining, upgrading diagnosing, troubleshooting, and networking recent and current personal computer hardware. Recommended preparation: CIS 101, NET 101, NET 106 or equivalent experience.</p>	NET 105 with a grade of C or better or concurrent enrollment or proficiency	<p>Hersey Rolling Meadows Wheeling Conant Fremd Hoffman Estates Palatine Schaumburg</p>	<p>Hersey Rolling Meadows Wheeling Conant Fremd Hoffman Estates Palatine Schaumburg</p>	<p><b>A+ Guide To Managing &amp; Maint Your Pc Comp (W/Cd Only)</b> Andrews ISBN: 9781435497788</p>	<p>1 semester</p> <p>Common Assessment</p>
<p><b>NET112 A+ Networking Systems Technologies (3 Credit Hours)</b></p> <p><b>D211#T67302, Computer Repair</b> <b>D214 #06742, Computer Repair A+ Certification</b></p> <p>Provides students with experience installing, configuring, upgrading, diagnosing, troubleshooting, and networking recent and current personal computer operating systems. Recommended preparation: CIS 101, NET 101, NET 106 or equivalent experience.</p>	NET 105 with a grade of C or better or concurrent enrollment or proficiency	<p>Hersey Rolling Meadows Wheeling Conant Fremd Hoffman Estates Palatine Schaumburg</p>	<p>Hersey Rolling Meadows Wheeling Conant Fremd Hoffman Estates Palatine Schaumburg</p>	<p><b>A+ Guide To Managing &amp; Maint Your Pc Comp (W/Cd Only)</b> Andrews ISBN: 9781435497788</p>	<p>1 semester</p> <p>Common Assessment</p>

**Networking, *continued***

Course Description	Prerequisites	Campus Location	Participating High Schools	Textbook	Notes
<p><b>NET121 Introduction to Networking (3 Credit Hours)</b></p> <p><b>D211 #W65403 “CISCO Networking Basics”</b>  <b>D214 #06750 “CISCO Networking Basics”</b>  <b>D220 #492103 “CISCO I” (Not currently being offered)</b></p> <p>Provides students with a comprehensive introduction to local area networks. Includes the OSI model, media, topologies, protocols, network maintenance, upgrades, troubleshooting, and current network operating systems.</p>	<p>NET 105 with a grade of C or better or proficiency</p>	<p>Offered in structured course and online at Harper College</p> <p>Offered as a class at:                      Hersey                      Rolling Meadows                      Wheeling</p>	<p>All D211, D211, and D220 high schools when taught at Harper</p> <p>Also offered on the high school campus at Hersey, Rolling Meadows, &amp; Wheeling</p>	<p><b>Guide To Networking Essentials (W/Cd)</b>                      Tomsho                      ISBN:                      9781111312527</p>	<p>Common Assessment</p>
<p><b>NET122 Internet Protocols (3 Credit Hours)</b></p> <p><b>D211 #W65503 “CISCO Routers &amp; Routing Basics”</b>  <b>D214 #06760 “CISCO Routers &amp; Routing Basics”</b>  <b>D220 #492203 “CISCO I” (Not currently being offered)</b></p> <p>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. Recommended preparation: NET 121 or equivalent experience.</p>	<p>NET 121 with a grade of C or better or concurrent enrollment.</p>	<p>Offered in structured course and online at Harper College</p> <p>Offered as a class at:                      Hersey                      Rolling Meadows                      Wheeling</p>	<p>All D211, D211, and D220 high schools when taught at Harper</p> <p>Also offered on the high school campus at Hersey, Rolling Meadows, &amp; Wheeling</p>	<p><b>Guide To Tcp/Ip</b>                      Chappell                      ISBN:                      9781418837556</p>	<p>Common Assessment</p>

## Physical Science

Course Description	Prerequisites	Campus Location	Participating High Schools	Textbook	Notes
<p><b>PHS101 Physical Science Survey (3 credit Hours)</b></p> <p><b>D214 #05241/05242 College Physical Science</b></p> <p>Designed to give the non-science major an understanding and appreciation of motion and energy applications, geology, atmospheric science and astronomy. Knowledge of high school algebra is assumed. IAI P9 900</p>	<p>Math ACT score of at least 22: <b>or</b> Compass Algebra score of at least 53 and at least C- in both semesters of HS Geometry, <b>or</b> Compass Algebra score of at least 53 and Compass Geometry score of at least 46, <b>or</b> Passing Threshold (70%) on MTH 080 final and Compass Geometry score of at least 46.</p>	<p>D214: Buffalo Grove Rolling Meadows</p>	<p>D214:</p>	<p><b>An Introduction to Physical Science.</b> Shipman, Wilson, Higgins, Torres, 14<sup>th</sup> Edition.</p>	<p>Full year course-credit awarded in spring term. First year 2015-2016. (Power of 15)</p> <p>Common Assessment</p>
<p><b>PHS170 Fundamentals of Nanoscience (3 Credit Hours)</b></p> <p><b>D214 #06461/2 Introduction to Nanotechnology</b></p> <p>Studies the field of nanotechnology, the capability to observe and manipulate systems at the molecular or atomic scale that is affecting all traditional sciences. Provides an introduction to the history, tools, materials, and current and emerging applications of Nanotechnology. (Formerly NAN 121) IAI P9 900L</p>	<p>Prerequisite: MTH 080 or higher with a grade of C or better, or required MTH 103 placement test score.</p>	<p>D214: Wheeling</p>	<p>D214: Wheeling</p>	<p><b>Nanophysics and Nanotechnology: An Introduction to Modern Concepts in Nanoscience.</b> Wolf, Edward L.</p>	



## Paralegal Studies

Course Description	Prerequisites	Campus Location	Participating High Schools	Textbook	Notes
<p><b>PLS101 Introduction To Paralegal Studies (3 credit Hours)</b></p> <p><b>D214 #TBD College Introduction to Paralegal Studies</b></p> <p>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 instruction in legal research and writing upon a review of the sources and works of law. Students must take the Paralegal Studies entrance examination.</p>	<p>Paralegal Studies Exam, resume, statement of purpose</p>	<p>HARPER D214</p>	<p>D214: Buffalo Grove, Elk Grove, Hersey, Prospect, Rolling Meadows, Wheeling</p>	<p><b>Currier. Introduction to Law for Paralegals.</b> 5th Edition. Wolters Kluwers, 2012</p>	<p>Starting Fall 2018 at all D214 Schools (one semester course)</p>
<p><b>PLS102 Fundamentals of Legal Research (3 Credit Hours)</b></p> <p><b>D214 #TBD College Fundamentals of Legal Research</b></p> <p>Orients students to law library and various legal publications, treatises and other legal writings encountered in day-to-day practice of law. Emphasizes developing student capability to analyze, interpret and communicate facts, ideas and law through comprehension of legal research techniques.</p>	<p>Prerequisite: PLS 101 with a grade of C or better, or consent of program coordinator.</p>	<p>HARPER</p>	<p>D214: Buffalo Grove, Elk Grove, Hersey, Prospect, Rolling Meadows, Wheeling</p>	<p><b>Statsky. Case Analysis &amp; Fund Of Legal Writing.</b> 4th Edition. West , 1995  <b>Harvard Law. Uniform System Of Citation: Bluebook.</b> 19th Edition. Harvard Law , 2010 Hames.  <b>Legal Research, Analysis &amp; Writing.</b> 4th Edition. Prentice Hall , 2012</p>	<p>Starting Spring 2019 at all D214 Schools (one semester course)</p>

## Political Science

Course Description	Prerequisites	Campus Location	Participating High Schools	Textbook	Notes
<p><b>PSC260 Middle Eastern Politics (3 Credit Hours)</b></p> <p><b>D214 #07850 “Middle Eastern Politics”</b></p> <p>Examines political, social, economic, military, religious and terrorist forces in the Middle East. Investigates the politics of specific countries in the area.</p>	No Prerequisite.	High Schools	<b>D214:</b> Buffalo Grove	<b>TBD</b>	One semester, first offered Fall 2017.

## Sign Language

Course Description	Prerequisites	Campus Location	Participating High Schools	Textbook	Notes
<p><b>SGN101 American Sign Language I (4 Credit Hours)</b></p> <p><b>D211 #W63503 “American Sign Language”</b>  <b>D214 #10271 “American Sign Language 1”</b>  <b>D220 #493103 “Sign Language 1”</b></p> <p>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.</p>	<p>High School Seniors only.</p> <p>Students must have B grade average or better in 3 years of high school English.</p>	<p>Harper</p>	<p>All high schools in districts 211, 214, and 220</p>	<p><b>For Hearing People Only</b>            Moore            ISBN: 9780963401632            and  <b>Signing Naturally St Wkbk Units 1-6 (W/2 Cd'sonly)</b>            Smith            ISBN: 978-1-58121-210-5</p>	
<p><b>SGN102 American Sign Language II (4 Credit Hours)</b></p> <p><b>D211 #W63603 “American Sign Language”</b>  <b>D214 #10272 “American Sign Language 2”</b>  <b>D220 #493203 “Sign Language 2”</b></p> <p>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.</p>	<p>SGN 101 with a grade of C or better.</p>	<p>Harper</p>	<p>All high schools in districts 211, 214, and 220</p>	<p>Same as above</p>	

## Speech

Course Description	Prerequisites	Campus Location	Participating High Schools	Textbook	Notes
<p><b>SPE101 Fundamentals of Speech Communication (3 Credit Hours)</b></p> <p><b>D211 #E60303 Fundamentals of Speech Communication</b>  <b>D214 #03850 College Speech Communication</b>  <b>D220 # 206504 "Speech 101"</b></p> <p>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</p>	College Ready	<p>D211: All High Schools in District.</p> <p>D214: Buffalo Grove/Prospect.</p> <p>D220: Barrington</p>	All high schools	<p><b>Art of Public Speaking</b>, Latest Edition (12th). McGraw Hill, Lucas, Stephen.</p>	<p>First term offered Summer 2015 at Harper (as part of high school summer school option). Also taught at Buffalo Grove in Fall/Prospect in Summer. D211 and D220 starting fall 2016. (Power of 15)</p> <p>Common Assessment</p>

## World Languages

Course Description	Prerequisites	Campus Location	Participating High Schools	Textbook	Notes
<p><b>FRN202 Intermediate French (4 Credit Hours)</b></p> <p><b>D211 #L66202 “French 4”</b></p> <p>Continues FRN 201. Further develops knowledge of the language and provides an overview of the culture of French speaking peoples. Emphasizes the development of advanced reading, writing, speaking and listening comprehension skills. While review the grammar structures previously covered, this course uses an integrated skills approach to extend the growth of communicative proficiency in French and to develop the understanding of French culture. Throughout the semester, students will be engaged in a variety of writing and speaking interactive class activities. Through guided readings, students will also be introduced to more complex grammar structures. Course content is theme-based and encourages students to expand linguistic and cultural knowledge through reading and communicative activities. NOTE: Three years of high school French are recommended.</p>	FRN201 or <b>D211 course</b> , French 3 with a grade of C or better.	Hoffman Estates	Hoffman Estates Palatine	<b>Interaction, Enhanced + Iirn And Access</b> St. Onge ISBN: 978-1-1118-7961-7	
<p><b>JPN201 Intermediate Japanese I (4 Credit Hours)</b></p> <p><b>D211 TBD</b></p> <p>Continues JPN 102. Emphasis on more complex conversation and advanced grammatical components; continued reading and writing. Emphasis on advanced composition</p>	Testing as placement into course	Harper	D211: All high schools	<p><b>An Integrated Course in Elementary Japanese Workbook II.</b> Banno, E. <u>Genki</u> 2nd Edition. The Japan Times, 2011</p> <p><b>An Integrated Course in Elementary Japanese, Genki II.</b> Banno, E. <u>Genki</u> The Japan Times, 2011</p>	Starting Fall 2017
<p><b>JPN202 Intermediate Japanese II (4 Credit Hours)</b></p> <p><b>D211 TBD</b></p> <p>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</p>	Testing as placement into course	Harper	D211: All high schools	<p><b>An Integrated Course in Elementary Japanese Workbook II.</b> Banno, E. <u>Genki</u> 2nd Edition. The Japan Times, 2011</p> <p><b>An Integrated Course in Elementary Japanese, Genki II.</b> Banno, E. <u>Genki</u> The Japan Times, 2011</p>	Starting Spring 2018

Course Description	Prerequisites	Campus Location	Participating High Schools	Textbook	Notes
<p><b>SPA112 Heritage Spanish I (4 Credit Hours) and SPA113 Heritage Spanish II (4 Credit Hours)</b></p> <p><b>D220 #5050323/505324 “Spanish for Spanish Speakers III/IIH”</b></p> <p>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.</p>	None	High School	Barrington	<b>Nuevos Mundos, Lectura, cultura y comunicación</b> Book and Workbook Roca, Ana	Both SPA112 and SPA113 = D220 #505303 and #505304
<p><b>SPA202 Intermediate Spanish (4 Credit Hours)</b></p> <p><b>D211 #L66602 “Spanish 4”</b></p> <p>Deepens the students' functional skills in comprehending, speaking, reading, and writing Spanish and provides an overview of Hispanic culture in various countries. This course completes the intermediate Spanish skills sequence and while reviewing the grammar structures previously covered, it uses an integrated skills approach to extend the growth of communicative proficiency in Spanish and to develop the understanding of Hispanic culture. Students will analyze short pieces of Hispanic literature and engage in a basic research project. This course is not designed for native speakers. Four years of high school Spanish are recommended. IAI H1 900</p>	SPA 201 or <b>D211 course</b> , Spanish 3 with a grade of C or better	Fremd Palatine Schaumburg	Fremd Palatine Schaumburg	<b>SPA 202 Custom</b> (Pearson Custom Library) Hernandez ISBN: 978-1-2690-6630-3	

<p><b>SPA205 Spanish Intensive Oral Practice (3 Credit Hours)</b></p> <p><b>D211 #L67602 “Advanced Topics in Spanish”</b></p> <p>Focuses on conversational practice to develop oral facility; specially designed exercises in pronunciation, stress and rhythm. Individual readings of modern Spanish works discussed in class. Written and oral compositions based on readings. Designed to help students bridge the gap between the intermediate and advanced levels.</p>	<p>SPA 202 with a grade of C or better or D211 course #L466, Spanish 4 with a C or better.</p>	<p>High School</p>	<p>Schaumburg, Hoffman Estates, Palatine, Fremd</p>	<p><b>Revista Conversacion Sin Barreras</b> Blanco ISBN: 978-1-60007-856-9</p>	
<p><b>SPA210 Introduction to Modern Spanish Literature (3 Credit Hours)</b></p> <p><b>D220 #505425 “AP Spanish Lit and Culture”</b></p> <p>Studies readings of selected 20th century masterpieces. Introduction to poetry. Oral readings stressing pronunciation and diction. Speaking based on discussion of works read. Writing based on readings and class discussions. Designed to help students bridge the gap between the intermediate and advanced levels. IAI 3917</p>	<p>SPA 202 with a grade of C or better, or equivalent or consent of instructor</p>	<p>High School</p>	<p>Barrington</p>	<p><b>Galería Hispánica,</b> McGraw Hill ISBN: 978-0-07-338537-2</p>	

### **Credit by Exam Courses**

The courses below are offered under the Credit by Exam program. Students participating in the Credit by Exam program take an exam at the end of the semester either in their high school class or at Harper College. The instructor will notify students of the exam results. Upon passing the exam

and completing the Harper College High School Partnership Application, students will receive a letter grade on their high school transcript, and credit only (CRD) on their Harper Transcript. Semester hours of credit are awarded through this program, but a letter grade is not assigned on the Harper transcript. **Please note that many institutions will not accept Credit by Exam credit. Students should check with the college that they plan to attend.**

## Accounting

Course Description	Prerequisites	Min Qualifying Score	Campus Location	Participating High Schools	Notes
<p><b>ACC101 Introduction to Financial Accounting (4 Credit Hours)</b></p> <p><b>D211 #B488 “Accounting II Managerial”</b>  <b>D214 #05551/05552 “College Accounting”</b>  <b>D220 #303104 “Advanced Accounting Honors”</b></p> <p>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.            IAI BUS 903</p>	High school algebra is recommended.	73%	High School	Barrington Buffalo Grove Elk Grove Hersey Prospect Rolling Meadows Wheeling	Offered only as Credit by Exam

## Computer Information Systems

Course Description	Prerequisites	Min Qualifying Score	Campus Location	Participating High Schools	Notes
<p><b>CIS100 Computer And Digital Literacy (3 Credit Hours)</b></p> <p><b>All Districts –Student must earn IC3 Certification</b></p> <p>Provides students 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 system majors</p>	None	See Harper Dept. Chair	High School	Any High School offering IC3 Certiport Examinations	Offered only as Credit by Exam  Student must show proof of IC3 certification to the Harper Information Technology Coordinator



## Medical Terminology

Course Description	Prerequisites	Min Qualifying Score	Campus Location	Participating High Schools	Notes
<p><b>HSC112 Medical Terminology (2 Credit Hours)</b></p> <p><b>D214 #06640 “Medical Terminology”</b></p> <p>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.</p>	None	80%	High School	Wheeling, Elk Grove	Also offered as a Dual Credit course

## Management

Course Description	Prerequisites	Min Qualifying Score	Campus Location	Participating High Schools	Notes
<p><b>MGT111 Introduction to Business Organization (3 Credit Hours)</b></p> <p><b>D214 #05641/05642 “College Business”</b>  <b>D220 #304104 “Advanced Business Management”</b></p> <p>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.</p>	None	70%	High School	Barrington Elk Grove Hersey Wheeling	Offered only as Credit by Exam