

FREQUENTLY ASKED QUESTIONS (FAQ's)

FOR HIGH SCHOOL STUDENTS:

Q: I am currently in high school and interested in electronics. What can I do now to start learning about this technology?

A: **Articulation Agreements:** Harper College has **Articulation Agreements** with area high schools in Districts 211, 214 and 220. If your high school has an Applied Technology program and offers courses in electronics, you can take them now while you are in high school and receive college credit later provided that you receive a grade “B” or better and enroll in Harper’s Electronics Engineering Technology program after graduation. Receiving college credit early allows you to take more advanced courses when you enter Harper your first year. This saves students time and parents money.

Dual Credit Program: Harper College also has a progressive **Dual Credit Program** that allows high school students in Districts 214 and 220 enroll in specific Harper Electronics Engineering Technology courses while attending high school. Students in this program receive “dual credit” allowing them to concurrently satisfy certain high school graduation requirements and earn college credit that may be applied toward a degree or certificate provided they enroll in Harper’s Electronics Engineering Technology program after graduation. Again, this saves students time and parents money.

Q: What is the difference between **Electrical Engineering** and **Electronics Engineering Technology**?

A: **Electrical Engineering** (4 - year program) is a profession that focuses greatly on creativity and innovation. Research & Development, Advanced Technology Innovation, New Business & Product Development, New Product Development & Design and Product, Program & Operations Management are key areas where **Electrical Engineers** find employment in industry, government and education. Typical undergraduate programs lead to a Bachelor of Science in Electrical Engineering (BSEE) degree. Considerable academic emphasis is placed on mastery of advanced mathematics and the physical sciences, as well as the engineering and computer sciences. BSEE programs also prepare students to pursue masters and doctoral degrees.

Electronics Engineering Technology (4 - year program) is a profession that focuses heavily on application and implementation. Technical Sales, Applications Engineering, Manufacturing Operations, Quality Control and Customer Support are the key areas where **Electronics Engineering Technologists** find employment in industry, government and education. Typical undergraduate programs lead to a Bachelor of Science in Electronics Engineering Technology (BSEET). Academic emphasis is placed on mastery of intermediate level applied mathematics and physical science. Engineering and computer applications with laboratory and field orientation are stressed.

Electronics Engineering Technology (2 - year program) is a vocation that focuses primarily on equipment construction, documentation, installation and maintenance. Engineering Services, Laboratory Operations, Operations Maintenance, Product Analysis & Repair and Field Service are key areas where **Electronics Engineering Technicians** find employment in industry, government and education. Typical programs lead to an Associate in Applied Science in Electronics Technology or Electronics Engineering Technology (AASET or AASEET respectively). Academic emphasis is placed on mastery of introductory level applied mathematics and physical science. Performing operational tasks following well-defined procedures to support engineering activities in laboratory or field environments is stressed.

For additional material concerning this question, refer to the **Career Information** section of this Web site.

Q: What courses in high school should I take to prepare for a college program in Electronics Engineering Technology?

A: Algebra I & II, and Trigonometry are very important mathematics courses. So are the Physical Sciences (Physics and Chemistry). Life Science (Biology) is important because so much biomedical equipment is electronic. Much of what we do in electronics relies on these “foundational” technical courses. Surprisingly, many non-technical courses are very important too. For example, English is important because Engineers and Technologists need to know how to communicate well... both verbally and in writing. So are the Social Sciences, Humanities and Foreign Languages because they help Engineers and Technologists understand economic, political, environmental and cultural areas that are critical to working with people.

FREQUENTLY ASKED QUESTIONS (FAQ's) - Continued

FOR ADULT LEARNERS & CAREER CHANGERS:

Q: I have been working and out of school for a long time. How do I start a degree or certificate program in electronics?

A: Many working adults begin as part-time students by initially enrolling in only one course. If you are new to the field, you should consider enrolling in ELT 110 Introductory Electronics or ELT 101 DC Network Analysis. These 4 semester hour courses provide good overviews of basic electricity and electronics. If, however, you already have some academic or work experience in electronics, you may be able attain college credit by testing out of certain introductory courses. Either way, it is highly recommended you discuss your specific career and educational objectives with the **Program Coordinator** before you start in order to develop an effective plan that will suit your needs.

Q: Do I need to take any placement tests to enroll in a degree or certificate program in electronics?

A: If you are a part-time student pursuing a certificate, the answer is “no”. However, if you are a full-time student pursuing a degree, the answer is “yes”. Additionally, if you are a full-time student seeking a degree, you may also be required to provide high school transcripts and ACT scores. If you have any further questions concerning these areas, please consult the **Student Development Office**.

Q: What is the difference between part-time and full-time status?

A: A student is considered part-time if he / she is enrolled in less than 12 credit hours per semester (or less than 6 credit hours for the summer term). A student is considered full-time if he / she is enrolled in 12 or more credit hours per semester (or 6 or more credit hours for the summer term).

Q: I have a full-time job and work at least 40 hours per week. How many classes should I take each semester?

A: The answer is: whatever you feel you can handle along with work, family and any other commitments you may have. A good “rule of thumb” to follow is for every semester hour of college credit taken, 2 - 3 hours per week should be used to study outside of class if you expect to do well in the course. So, for a 2 semester hour course you need to spend 4 - 6 hours a week studying outside of class, whereas a 3 semester hour course requires 6 - 9 hours a week. Remember, college is a commitment too and should not be undertaken unless you can spend adequate time outside of class to study. Because of this, most working adults only take 1 - 2 courses each semester.

Q: What is the entry-level certificate and how long does it take? What courses are required and where can it be used in industry?

A: The **Electrical Maintenance Certificate** is a 10 credit-hour program and may be completed in 1 - 2 semesters. Three (3) courses are required: ELT 110 Introductory Electronics (4 hrs), ELT 142 Electrical Wiring (2 hrs) and ELT 215 Industrial Control Systems (4 hrs). This 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. Students completing this program may find employment as electrical technicians, electrician apprentices, electricians, and facilities or plant maintenance technicians.

Q: Describe the next level certificates, how long do they take, what courses are required and where they may be used in industry.

A: The **Electronics** and **Industrial Electronics Certificates** are 16 credit-hour programs and may be completed in 2 - 3 semesters. In fact, many Electrical Maintenance Certificate holders simply take 2 - 3 additional courses to receive a more advanced level certificate. Students may choose specific electronics courses with **Program Coordinator** approval. These programs are designed to prepare students for careers in the field of electronics and other related technology industries. Students completing the **Electronics Certificate** may find employment in various entry-level positions in technical sales, manufacturing and quality control, and customer service, while those completing the **Industrial Electronics Certificate** may find employment as electrical technicians, electrician apprentices, electricians, and facilities or plant maintenance technicians.

ELECTRONICS ENGINEERING TECHNOLOGY DEPARTMENT

FREQUENTLY ASKED QUESTIONS (FAQ's) - Continued

FOR ADULT LEARNERS & CAREER CHANGERS - Continued:

Q: Can I apply credits earned for certificates toward a 2 - year degree?

A: Virtually all credits earned for certificate programs may be applied toward the *Associate in Applied Science in Electronics Engineering Technology Degree*. Students considering this program are encouraged to meet with the *Program Coordinator* and their *Student Development Advisor* prior to beginning the program, and also when planning their schedule each semester. AAS degree candidates may also require placement testing and / or have to provide high school transcripts and ACT scores.

Q: Describe the AAS degree, how long does it take, what courses are required and where it may be used in industry.

A: The *Associate in Applied Science in Electronics Engineering Technology Degree* is a 67 credit-hour program and may be completed in about 2 - years assuming full-time enrollment. Students must follow a specific program of study in order to graduate. This program is designed to prepare students for careers in the field of electronics and other related technology industries. Students completing 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. Students may also continue their education by pursuing a Bachelor of Science in Electronics Engineering Technology (BSEET) Degree at a 4 - year college or university offering this type of program. Electronics Technology students considering this transfer option are encouraged to meet with the *Program Coordinator* and their *Student Development Advisor* prior to beginning the program, and also when planning their schedule each semester.

Q: I have already earned college credit elsewhere. Can I apply this credit toward an electronics degree or certificate at Harper?

A: Quite possibly. But in order to be certain, you should have your official transcripts sent directly from your former college or university to the *Admissions & Records Office* at Harper for evaluation. The Admissions & Records office generally determines what “non-electronics” courses are applicable toward a certificate or degree. Once this occurs, the *Program Coordinator* will perform a final evaluation, primarily focusing on electronics and other technical courses you may have already taken. This approach is an effective way to reduce your total “time-to-degree” and many students are taking advantage of this type of evaluation to save time and money. In fact, increasing numbers of students with associate’s and bachelor’s degrees in other disciplines are using their previously earned general education and technical credits at Harper.

Q: I have already earned college credit, but from a college or university in another country. How do I find out if this credit may be used for an electronics certificate or degree at Harper?

A: You still need to have the *Admissions & Records Office* and *Program Coordinator* at Harper evaluate your official transcripts. But an additional step is usually needed before this can happen. You should request your former college or university from your home country send your official transcripts to the *World Education Service* for translation and certification. Then, request the World Education Service send all documentation to Harper’s Admissions & Records Office. There is customarily a fee in the vicinity of \$100 for doing this. Many students feel it is worth the cost particularly if they are eligible for credit at Harper. If you have questions concerning this process, please contact Harper Admissions & Records.