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Discover

Schoolcraft College

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Electronic Technology

Are you known for your troubleshooting talent? Mr. or Ms. Fixit with anything electronic? Then Schoolcraft College has a program for you.

After just two semester of study here, you can go out in the work world and get a job as an Electronics Repairer. Put in four semesters and you'll qualify as an Electronics Engineering Technician, able to work side by side with engineers to design and test computers, electronic devices and appliances, and medical and industrial equipment.

Our labs enhance your basic knowledge of microcontrollers, programmable logic controllers, and digital and analog circuits, while lectures teach you how to take measurements and report your findings in a clear and concise manner. We'll also introduce you to simulation software that significantly streamlines the design process.

Schoolcraft also offers Metallurgy and Materials Science. See our catalog or website for details.

FREQUENTLY ASKED QUESTIONS

What Do ELECTRONICS ENGINEERING TECHNICIANS and ELECTRONICS REPAIRERS Do?

An Electronics Engineering Technician helps design, model, test, and manufacture equipment such as computers, communications systems, biomedical equipment, optoelectronics, and industrial control systems. An Electronics Repairer works on a factory floor or at a bench to maintain and repair such equipment.

What Characteristics Do I Need To Work In This Field?

For Technicians, a basic knowledge of science, mathematics, and engineering is a given. Also, you'll likely work in a team environment, so good communication skills and the ability to get along with others are important. Repairers, on the other hand, tend to work alone and enjoy solving problems on their own. They may travel or work odd hours to respond to repair needs and must be safety-conscious.

Where Could I Find a Job?

Technicians and Repairers can find work in the following industries: electrical and electronics equipment, industrial machinery and equipment, medical instruments and related products, and communications.

What is My Employment Outlook?

Employment opportunities for Electronics Engineering Technicians and Electronics Repairers are expected to grow slower than the average for all occupations through the year 2020.

Related Websites

Electronics Technicians Association: www.eta-sda.com

International Society of Certified Electronics Technicians: www.iscet.org

For More Information

Visit www.schoolcraft.edu where you can view course and program information, schedule a campus tour, apply for admission, register for courses, and request more information.

Contact the Admissions and Enrollment Center at 734-462-4426 with additional questions.

employment

JOB TITLES & MEDIAN SALARIES OR HOURLY RATES

Electronics Repairer
\$39,052 (Michigan)

Electronics Engineering Technician
\$47,632 (Michigan)

Program Requirements 2012-2013 CATALOG

ELECTRONIC TECHNOLOGY ASSOCIATE DEGREE

Schoolcraft program code # AAS.00120

This Electronics Program is designed to give students a strong background in the fundamentals of electricity, electronic devices and basic circuits (digital and linear). The curriculum includes laboratory demonstration of the principles taught in class affording practical experience in fabrication, instrumentation and presentation.

The program is not directly aimed at specific products. With the multiplicity of equipment presently in use and the rapid advance and change in technology, the department stresses the development of a broad background that will enable students to find employment and be able to further their skills in a diversified number of industries.

All courses are not offered each semester. Students should work with the Counseling Center to set up a schedule that will work for them. Students who satisfactorily complete all College Requirements qualify for an Associate in Applied Science Degree.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR		Fall Semester	
ELECT 131	Basic Measurement and Reporting Skills	.....	3
ELECT 137	DC Circuits and Mathematical Modeling	.....	5
ENG 101	English Composition I	.....	3
Science	Select I	.....	4-5
BIOL 105	Basic Human Anatomy and Physiology		
CHEM 111	General Chemistry I		
PHYS 123	Applied Physics		
			15-16
		Winter Semester	
ELECT 138	AC Circuits and Mathematical Modeling	.....	5
ELECT 139	Diodes and Transistors	.....	3
COMPS 126	Technical Programming	.....	3
			11
		Spring/Summer Session	
ELECT 215	Operational Amplifiers and Linear Integrated Circuits	.....	4
ELECT 219	Digital Logic Circuits	.....	4
			8

SECOND YEAR Fall Semester

ELECT 144	Introduction to Microcontrollers	.....	3
ELECT 218	AC/DC Motors	.....	3
Social Science	Select I	.....	3
POLS 209	International Relations		
PSYCH 153	Human Relations		
SOC 210	Cultural Diversity		
Elective*	Select from the list below	.....	3
English	Select I	.....	3
ENG 102	English Composition 2		
ENG 116	Technical Writing		
			15

Winter Semester

ELECT 251	Programmable Logic and Industrial Controls	.....	4
Elective*	Select from the list below	.....	3-4
Math	Select I	.....	3-4
MATH 101	Business Mathematics		
MATH 113	Intermediate Algebra for College Students		
HUM 106	Introduction to Art and Music	.....	1
			11-13

PROGRAM TOTAL 60-63 CREDITS

ELECTIVES

BMET 125	Laser Safety Concepts	.....	3
CIS 171	Introduction to Networking	.....	3
CIS 235	Managing and Troubleshooting PCs	.....	3
COMPS 124	Introduction to Personal Computers and Software	.....	3
ELECT 133	Introduction to Battery Technology	.....	3
ELECT 145	Fluid Power	.....	4
ELECT 228	Electronic Troubleshooting	.....	3
ELECT 252	Programmable Logic System Design	.....	4
MET 102	Introduction to Materials Science	.....	3

* Number of credits may vary depending on the course selection.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection.

Virtually any program at Schoolcraft College can be a transfer program if you plan to continue at a four-year institution to earn a bachelor's degree in your major. Visit www.schoolcraft.edu/transfer for information about transfer options. To ensure that the Schoolcraft courses you select are the specific ones required by the four-year college of your choice, be sure to consult regularly with your counselor/advisor.

TECHNOLOGY

ELECTRONIC TECHNOLOGY CERTIFICATE

Schoolcraft program code # 1YC.00125

The certificate for electronics provides the student with a solid foundation for many jobs that require a thorough understanding of electronic fundamentals. Completion of the certificate program also offers the student the opportunity to pursue advanced technical credentials in health care, in manufacturing, or in computer systems.

All courses are not offered each semester. Students should work with the Counseling Center to set up a schedule that will work for them. Students who satisfactorily complete the Program Courses qualify for a Certificate of Program completion.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR		Fall Semester	
ELECT 131	Basic Measurement and Reporting Skills	.....	3
ELECT 137	DC Circuits and Mathematical Modeling	.....	5
COMPS 126	Technical Programming	.....	3
Science	Select I	.....	4-5
BIOL 105*	Basic Human Anatomy and Physiology		
CHEM 111	General Chemistry I		
PHYS 123	Applied Physics		

15-16

Winter Semester		
ELECT 138	AC Circuits and Mathematical Modeling	..... 5
ELECT 139	Diodes and Transistors	..... 3

8

SPRING/SUMMER SESSION

ELECT 215	Operational Amplifiers and Linear Integrated Circuits	..	4
ELECT 219	Digital Logic Circuits	.....	4

8

PROGRAM TOTAL 31-32 CREDITS

* BIOL 105 is required for the BMET program internship sequence.

Go to www.schoolcraft.edu/academicprograms to see the Gainful Employment Disclosure which includes additional information about this program, such as program costs, student graduation rates, and the median debt of students who complete the program.

ELECTRONIC TECHNOLOGY SKILLS CERTIFICATE

Schoolcraft program code # CRT.00320

The Electronic Technology Certificate is intended for students wishing to gain the basic skills needed for entry-level jobs in electronics. Completion of the skills certificate permits the student to take electrical measurements, understand DC and AC signals, and apply solid-state troubleshooting techniques used in modern jobs involving electronics.

All courses are not offered each semester. Students should work with the Counseling Center to set up a schedule that will work for them. A Certificate of Completion is granted after completion of required courses with a grade of 2.0 or better.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR		Fall Semester	
ELECT 131	Basic Measurement and Reporting Skills	.....	3
ELECT 137	DC Circuits and Mathematical Modeling	.....	5

8

Winter Semester

ELECT 138	AC Circuits and Mathematical Modeling	.....	5
ELECT 139	Diodes and Transistors	.....	3

8

PROGRAM TOTAL 16 CREDITS

Go to www.schoolcraft.edu/academicprograms to see the Gainful Employment Disclosure which includes additional information about this program, such as program costs, student graduation rates, and the median debt of students who complete the program.



