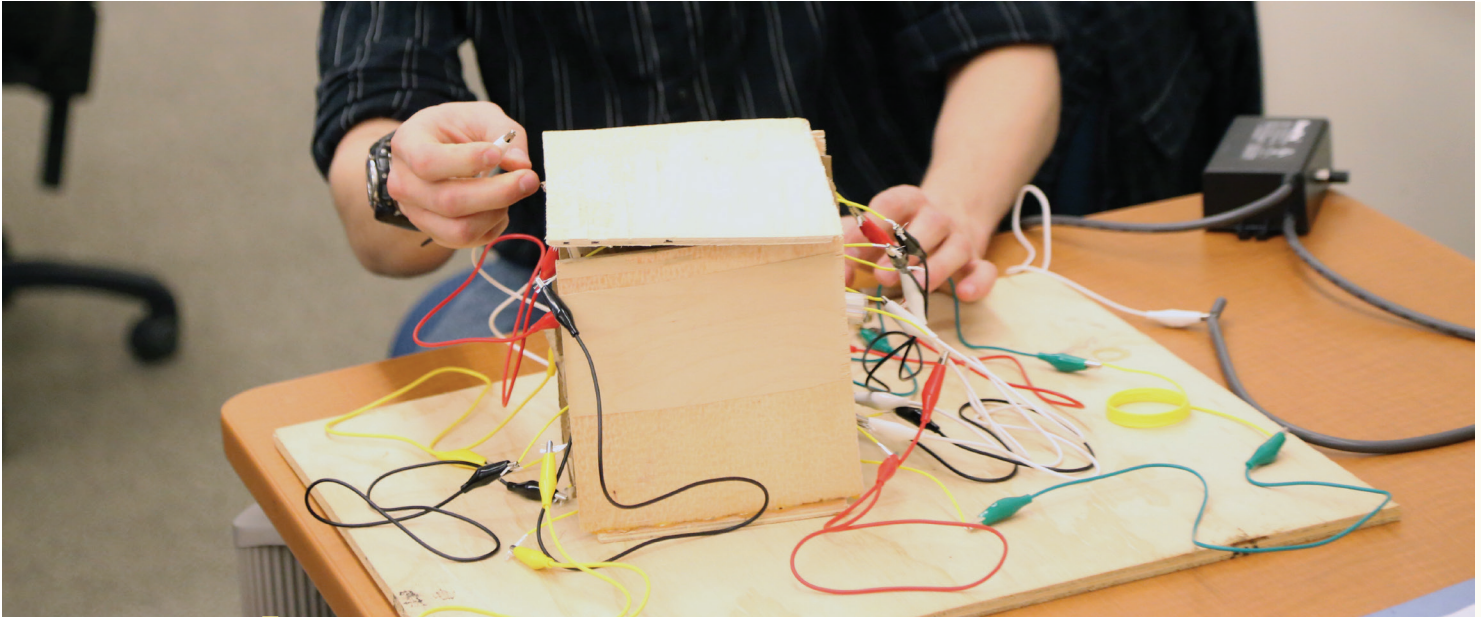


# Electrical Technology

A.A.S. | Associate in Applied Science



This program is designed to provide students with a solid technological foundation in electrical/electronics-related fields thus preparing them for successful entry level employment as a technician in the associated technology sector. The Electrical Technology (ELT) A.A.S. degree is marketable – students who graduate can expect to find successful employment that they will be eligible for immediately. Technician opportunities are available in the following technology sectors: power systems (traditional and solar), semiconductor manufacturing, telecommunications, computers and related electrical/electronic fields.

Some examples of colleges that have a transfer degree program in Electrical Engineering Technology (EET) are SUNY Polytechnic in Utica/Rome, Excelsior College, SUNY Farmingdale and Rochester Institute of Technology (RIT). Students may complete the associate degree in electrical technology and a bachelor's degree in electrical engineering by taking additional advanced science and math courses to transfer to SUNY New Paltz through an articulation agreement. Students may learn more about transfer and articulation agreements by contacting the ELT program chair.

**For more information, contact the Admissions Office at (845) 431-8010 or visit [www.sunydutchess.edu/academics](http://www.sunydutchess.edu/academics)**

# Electrical Technology (ELT)

## ENGINEERING SCIENCE AND TECHNOLOGIES

(HEGIS 5310)

Students completing the ELT degree program will learn hands-on skills, theory and real world examples. The tools of the technician will be used from the first semester and throughout the program to build skills in assembling and troubleshooting circuits and projects.

Students who successfully complete the Associate in Applied Science (A.A.S.) degree in Electrical Technology (ELT) will be able to:

- Explain electrical technology systems, components and theory.
- Apply hands-on skills, such as use of tools, soldering, circuit assembly, analytical instrumentation skills (including use of meters and the oscilloscope) and computer simulation.
- Interpret circuit schematics.
- Demonstrate troubleshooting skills.
- Define and demonstrate effective team building skills.
- Demonstrate technical communication skills.
- Research, interpret and analyze technical information on components used in electrical technology systems.
- Develop solutions to open-ended problems utilizing a hands-on learning approach.
- Demonstrate awareness of customer needs, quality and continuous improvement.

Courses should be selected in consultation with an advisor.

### FIRST SEMESTER

	credits	
Math Elective (a)	3	
ENG 101	Composition I	3
ELT 105	DC Circuits	3
ELT 107	Intro to Prog. for Automation	3
BHS 103	Social Problems in Today's World	3
<b>Total: 15</b>		

### SECOND SEMESTER

Math Elective (b)	3	
ENG 102	Composition II	3
ELT 106	AC Circuits	3
ELT 108	Electronics I	3
ELT 115	Digital Fundamentals	3
<b>Total: 15</b>		

### THIRD SEMESTER

ELT 122	Manufacturing Tools and Practices	3
ELT 213	Electro-Mechanical Devices	3
ELT 218	Electronics II	3
PHY 121	General Physics I	4
American History Course (c)	3	
<b>Total: 16</b>		

### FOURTH SEMESTER

ELT 216	Automation Systems	3
ELT 250	ELT Capstone Project	2
ENT 131	Technical Drawing	1
Technical Elective (e)	3	
CHE 111, CHE 121 or PHY 122	4	
Free Elective (d)	3	
<b>Total: 16</b>		

**Total Credit Hours: 62**

a. Students must complete one of the following mathematics courses: MAT 184, MAT 185, MAT 221, MAT 222. Students must meet math course prerequisites.

b. Students planning to transfer for a 4-year degree in Electrical Engineering Technology must take one of the following math courses: MAT 185, MAT 221, MAT 222. A minimum completion of MAT 221 is strongly recommended for transfer to a 4-year degree program. Students planning to complete the 2-year A.A.S. degree for immediate employment must take ENR 106: Statistical Process Control as their second math elective.

c. Appendix D lists acceptable American History Courses.

d. Students planning to transfer to a 4-year degree are recommended to complete MAT 221 as a math elective or a free elective. See page 31 for a full discussion of the free elective requirement. The subject area for this program includes all courses labeled ELT.

e. Technical electives: ELT 203: Electric Power Systems, CIS 117: Data Communication Concepts, ELT 231: Photovoltaic Systems, and ENR 220: Digital System Design. Students planning to transfer to a 4-year degree take ENR 220. Students planning to work in telecommunications take CIS 117. Students planning to work in solar power take ELT 231.