ELECTRICAL ENGINEERING TECHNOLOGY  A.A.S.

Offered at these campuses:
North Campus (Williamsville)

The Electrical Engineering Technology Program has enjoyed more than 50 years of service to the local community. It is the only AAS degree-granting electronics program in Western New York that is accredited by the Engineering Technology Accreditation Commission of ABET, https://www.abet.org. This program prepares students for entry-level skills as technicians in the fields of electronics, computers, communications, instrumentation, automation and power. It also provides the basis for transferring to a four-year engineering technology program.

Faculty meet the highest standard of academic excellence for technician education. Their credentials include graduate degrees in engineering or a related field, along with professional engineering experiences that enrich the classroom presentation. A close liaison between the faculty and their industrial advisory council ensures that the curriculum content prepares the graduate for entry into the local job market.

The Electrical Engineering Technology program is accredited by the Engineering Technology Accreditation Commission of ABET, www.abet.org

PROGRAM COMPETENCIES
Upon graduation with an Associate in Applied Science degree in Electrical Engineering Technology, the graduate will be qualified in dealing with the following items and their associated tasks:

• Apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve well-defined engineering problems such as building, testing, operation, and maintenance of electrical/electronic systems.

• Apply circuit analysis and design, computer programming, associated software, analog and digital electronics, microcomputers and engineering standards to the design and/or building, testing, operation, and maintenance of electrical/electronic systems.

• Apply written, oral, and graphical communication in well-defined technical and non-technical environments; and identify and use appropriate technical literature.

• Demonstrate the ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results.

• Function effectively as a member of a technical team.

CURRICULUM
Total Degree Credits: 64.0

Full-Time Students, Two-year Sequence

FIRST SEMESTER
EL 118  Electrical Circuits I ................................. 2 cr
EL 128  EET Fabrication .................................. 2 cr
EN 110  College Composition .............................. 3 cr
MT 125  College Mathematics .............................. 4 cr
PH 260  Technical Physics I ........................ ........... 3 cr
PH 261  Lab for PH 260 ................................... 1 cr

SECOND SEMESTER
EL 154  Electronics I ......................................... 3 cr
EL 155  Lab for EL 154 ....................................... 1 cr
EL 158  Electrical Circuits II ............................... 3 cr
EL 159  Lab for EL 158 ....................................... 1 cr
EL 164  Digital Circuits I ..................................... 3 cr
EL 165  Lab for EL 164 ....................................... 1 cr
MT 126  College Mathematics II ............................ 4 cr

THIRD SEMESTER
EL 202  Electrical Circuits III .............................. 3 cr
EL 203  Lab for EL 202 ....................................... 1 cr
EL 214  Electronics II ........................................ 3 cr
EL 217  Lab for EL 214 ....................................... 1 cr
EL 260  Programmable Logic Controllers ............... 3 cr
XX ______ Technical Elective .............................. 3 cr
XX ______ Social Science Elective ......................... 3 cr

FOURTH SEMESTER
EL ______ Technical Elective ............................... 3 cr
EL ______ Technical Elective ............................... 3 cr
EL ______ Technical Elective ............................... 3 cr or
MT 175  Survey of Calculus I ............................... 4 cr
EL ______ Technical Elective ............................... 3 cr or
XX ______ Humanities Elective ............................. 3 cr
XX ______ 2nd Natural Science course with lab .......... 4 cr or
PH 262  Technical Physics II ................................ 3 cr
PH 263  Lab for PH 262 ................................... 1 cr

CAREER PATHS
Electronics; computers; communications; instrumentation; automation and power; or transfer to a four-year college BTech or BS program in electrical engineering technology or related field.
TECHNICAL ELECTIVES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EL 206</td>
<td>Machines and Control</td>
<td>3 cr</td>
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<tr>
<td>EL 210</td>
<td>Microcontrollers</td>
<td>3 cr</td>
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<tr>
<td>EL 228</td>
<td>Electronic Communications I</td>
<td>3 cr</td>
</tr>
<tr>
<td>EL 230</td>
<td>Introduction to Photovoltaic Systems</td>
<td>3 cr</td>
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<tr>
<td>EL 258</td>
<td>Semiconductor Fabrication</td>
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<td>EL 259</td>
<td>Lab for EL 258</td>
<td>1 cr</td>
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<tr>
<td>EL 272</td>
<td>Advanced PLCs and Automation</td>
<td>3 cr</td>
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<tr>
<td>EL 274</td>
<td>Internship</td>
<td>3 cr</td>
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<tr>
<td>EL 278</td>
<td>Electronic Communications II</td>
<td>3 cr</td>
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<tr>
<td>EL 280</td>
<td>Advanced Photovoltaic Systems</td>
<td>3 cr</td>
</tr>
<tr>
<td>EL 282</td>
<td>Plasma and Thin Films Deposition</td>
<td>3 cr</td>
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EXTENDED PROGRAM SEQUENCE

Students who score poorly on the Math and/or English placement tests may need to take several developmental Math and/or English courses. If a student’s math placement test score falls below degree level, he or she may take longer than two years to complete the program due to required pre-requisites for Math, Physics, and Electrical Engineering Technology courses.

Students who require developmental Math and/or English need to see an adviser to plan a proper course sequence.

PART-TIME STUDENTS

Part-time students should consult with an academic adviser to plan their course of study. It is important that courses be taken in the proper order to assure all pre-requisites are completed for each successive semester.

EVENING STUDENTS

Evening courses are scheduled sporadically depending on student demand, and it may not be possible to complete the degree solely in the evening. Contact the department for advisement before attempting to start the program.

CONTACT

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