EET 138 Introduction to Electronics I 4 credits
Corequisite: MAT 141 or equivalent
Focuses on direct current (DC) devices and circuits. Progresses from the fundamentals of electricity, Ohm’s Law, Kirchoff’s Law, series and parallel circuits to the study of resistors, capacitors, inductors, batteries, transistors, and diodes as they pertain to DC circuits.
3 lecture/3 laboratory hours

EET 139 Introduction to Electronics II 4 credits
Prerequisite: EET 138 or equivalent
Continuation of EET 138. Covers the basics of AC circuits and devices including resistors, capacitors, inductors, and semiconductors. Introduces fundamental waveforms such as sine waves and pulses and their behavior in solid state circuits.
3 lecture/3 laboratory hours

EET 140 Electronic Construction 2 credits
Teaches the use of hand tools, drilling and other metalworking methods as well as correct soldering and repair techniques. Students apply these skills to chassis construction and wiring, and also gain experience in working with printed circuit boards.
1 lecture/3 laboratory hours

EET 219 Electronic Networks 4 credits
Prerequisite: EET 139
Analysis and design considerations for electronic circuits, including power supplies using semiconductor diodes and zener diodes, and Class A amplifiers using bipolar and FET transistors.
3 lecture/3 laboratory hours

EET 220 Linear Integrated Circuits 4 credits
Prerequisite: EET 219
Covers the basic building blocks of linear systems, such as inverting and non-inverting amplifiers, comparators, and filters.
3 lecture/3 laboratory hours

EET 251 Digital Circuit Fundamentals 4 credits
Prerequisite: EET 139
Introduces the hardware of digital circuits and the electrical characteristics and connections of digital integrated circuit packages. Gates, registers, flip-flops, counters, decoders and encoders, display drivers, half- and fulladders, and clocks and timing circuits are further investigated in the lab.
3 lecture/3 laboratory hours

EET 263 Digital Technology 4 credits
Prerequisite: EET 251
Introduces microprocessors, especially the 8080/8085/290 family. Uses minimization techniques to simplify functional expressions and implement digital solid-state logic circuits. Also introduces microcomputer system and Assembly language programming. Emphasizes the architecture and instruction set of microprocessors.
3 lecture/3 laboratory hours

EET 210 Fiber Optics 4 credits
Prerequisites: EET 130 or EET 138; MAT 141 or equivalent
A study of fiber optics as it pertains to the communications process. Topics include the physics and behavior of light in a fiber. Skills learned include connectorization of fiber and the use of the special tools and test equipment required. Successful completion of this course can lead to FOA certification.
3 lecture/2 laboratory hours

Process for Admission
Whether you are planning to study full or part-time, you must submit an admission application (free of charge) to the Enrollment Services Office. An online application is available at www.mccc.edu. A print version may be requested by calling the Enrollment Services Office at 609-570-3795. Applications submitted by regular mail should be sent to: Enrollment Services Office, Mercer County Community College, P.O. Box B, Trenton, NJ 08690. Students must also contact their high school or previous/current college and request that official transcripts be sent to the same address.

Students may also be required to take an academic placement test (free of charge) in English and/or math. The two-hour test is self-administered and does not affect admission to the college. Certain scores on the SAT/ACT or your transcript from another college may exempt you from portions of the test.

After taking the placement test, students meet with an advisor to select their courses and then register for classes.

Approved for Veterans
MCCC is an approved institution for veteran’s training under various GI bills. For more information, call 609-570-3240.

Contact Us
We encourage you to visit the college and meet with faculty and staff. To arrange a campus tour or request additional information, contact the Enrollment Services Office on either campus.
West Windsor Campus: 609-570-3795
James Kerney Campus: 609-570-3139
(Monday-Friday, 9 a.m. to 5 p.m.)

For more information, contact Electronics Engineering Technology Professor Dominick DeFino at 609-570-3456 or email definod@mccc.edu.

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The Electronics Engineering Technology (EET) program is primarily a transfer program. Successful graduates may transfer to a college or university which offers a four-year bachelor’s degree in electronics engineering technology.

Mercer County Community College’s EET program maintains a transfer agreement with NJIT and Drexel University. EET graduates have also transferred to Rutgers, Rowan, Fairleigh Dickinson and Indiana Universities as well as Rochester Institute of Technology. Several of these institutions have programs which allow EET graduates to complete the requirements for a BS/ET degree in two years or a Master of Science (MSEE) in three years.

Options among four-year transfer programs include Biomedical Engineering, for job opportunities at the various New Jersey pharmaceutical companies; Computer Engineering, for positions ranging from programmers to systems administrators; General Electrical Engineering, for opportunities at the various electronics companies in New Jersey and the surrounding states; and Telecommunications Engineering, for positions with companies employing fiber optics or networking systems.

Successful graduates of Mercer’s EET program, earning a A.A.S. degree, will be able to:
- communicate effectively in English, both orally and in written form;
- demonstrate an understanding of the fundamentals of AC and DC electricity;
- work as a team with fellow workers;
- use a computer to access information from the Internet;
- demonstrate mastery of college algebra and trigonometry;
- demonstrate mastery of job skills such as soldering, metalworking, and PC board repair;
- demonstrate an understanding of fundamental digital circuits;
- demonstrate an understanding of analog circuits, including linear integrated circuits;
- set up and operate modern electronic equipment such as DMM, oscilloscope, and signal generators.

### CURRICULUM

<table>
<thead>
<tr>
<th>Code</th>
<th>Course (Lecture/Lab Hours)</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EET 138</td>
<td>Introduction to Electronics I (3/3)</td>
<td>4</td>
</tr>
<tr>
<td>EET 140</td>
<td>Electronic Construction (1/3)</td>
<td>2</td>
</tr>
<tr>
<td>ENG 101</td>
<td>English Composition I (3/0)</td>
<td>3</td>
</tr>
<tr>
<td>MAT —</td>
<td>Mathematics elective¹</td>
<td>4</td>
</tr>
<tr>
<td>— —</td>
<td>Science OR Technology elective²</td>
<td>3</td>
</tr>
<tr>
<td>EET 139</td>
<td>Introduction to Electronics II (3/3)</td>
<td>4</td>
</tr>
<tr>
<td>EET 215</td>
<td>Fiber Optics (3/2)</td>
<td>4</td>
</tr>
<tr>
<td>ENG 102</td>
<td>English Composition II (3/0)</td>
<td>3</td>
</tr>
<tr>
<td>— —</td>
<td>Science OR Technology elective²</td>
<td>3</td>
</tr>
<tr>
<td>— —</td>
<td>General Education elective³</td>
<td>3</td>
</tr>
<tr>
<td>EET 219</td>
<td>Electronic Networks (3/3)</td>
<td>4</td>
</tr>
<tr>
<td>EET 251</td>
<td>Digital Circuit Fundamentals (3/3)</td>
<td>4</td>
</tr>
<tr>
<td>HPE 110</td>
<td>Concepts of Health &amp; Fitness (1/2)</td>
<td>2</td>
</tr>
<tr>
<td>— —</td>
<td>General Education elective³</td>
<td>3</td>
</tr>
<tr>
<td>EET 214</td>
<td>Communications Electronics (3/3)</td>
<td>4</td>
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<tr>
<td>EET 230</td>
<td>Linear Integrated Circuits (3/3)</td>
<td>4</td>
</tr>
<tr>
<td>EET 263</td>
<td>Digital Technology (3/3)</td>
<td>4</td>
</tr>
<tr>
<td>— —</td>
<td>General Education Elective</td>
<td>3</td>
</tr>
</tbody>
</table>

*NOTE: Electives should be selected in consultation with an academic advisor in order to assure maximum transfer of credits.*

¹ Minimum mathematics requirement for students who do not plan to transfer to a bachelor degree program is MAT 146. Students who plan to transfer, working in consultation with an EET program advisor, should achieve MAT 151 level of proficiency or higher.

² Minimum requirement for students who do not plan to transfer is 6 credits selected from the approved list of general education science/technology electives. Students who plan to transfer to bachelor degree programs should complete PHY 101-102. Selection of courses should be made in consultation with an EET program advisor.

³ Select course from the following general education categories: Social Science, Humanities, Historical Perspective, Diversity and Global Perspective.

⁴ Select course from either Social Science or Humanities general education categories.

†HPE 111 is an acceptable alternative.