Electrical Engineering
Associate of Science in Engineering

General Program Information: 410 287-1000 or information@cecil.edu

This program option prepares students to transfer to a four-year institution for continued study in electrical engineering. Electrical Engineering is the branch of engineering that focuses on designing and analyzing components and systems that utilize electrons and photons. Electrical engineers also work in information technology and software development and function on multidisciplinary teams. Students with a bachelor's degree in electrical engineering continue their education in graduate school or enter industry.

	General Education Requirements	***General Education Code***	***Credits***
ARTS/HUM	Arts and Humanities Elective[1]	H	3
EGL 101	College Composition	E	3
EGL 102	Composition and Literature	H	3
MAT 191	Precalculus[2]	M	4
MAT 201	Calculus I with Analytic Geometry	M	4
PHY 217	General Calculus Physics I with Lab	SL	4
PHY 218	General Calculus Physics II with Lab	SL	4
SOC SCI	Social Science Electives	SS	6
	Program Requirements		
CSC 109 OR CSC 205	Introduction to Programming OR Computer Science I		3
MAT 202	Calculus II with Analytic Geometry	M	4
MAT 203	Multivariable Calculus	M	4
MAT 240	Introduction to Linear Algebra	M	4
MAT 246	Introduction to Differential Equations	M	3
PHE 101	Introduction to Engineering Design		3
PHE 225	Digital Electronics and Instrumentation with Lab		4
PHE 285	Principles of Electric Circuits with Lab		4
PHY 219	General Calculus Physics III with Lab	SL	4

Total Credits Required in Program: 64

[1]Selection may not include EGL designation

[2]Students placed in MAT 201 or higher Math may replace MAT 191 with MAT, PHY, PHE, CSC or CHM elective(s). **Students must satisfy the four credit requirement.**

***Program Outcomes see next page**

Upon successful completion of this program, students will be able to:

1. Apply the engineering design process by formulating and conducting experiments, analyzing and interpreting data, and iterating.
2. Participate as a member of a team to solve practical engineering problems.
3. Identify the professional and ethical responsibilities of engineers.
4. Use the techniques, skills, and modern engineering tools necessary for engineering practice.
5. Communicate in an effective and professional manner both verbally and in writing.
6. Analyze and design AC and DC circuits.