

# COMPUTER ENGINEERING

## Requirements

### Computer Engineering Core Courses

Code	Title	Hours
ECE 160	Engineering Practice	2
ECE 180	Introduction to Signal Processing	4
ECE 203	DC Circuits	4
ECE 204	AC Circuits	4
ECE 205	Circuits and Systems	4
ECE 230	Introduction to Embedded Systems	4
ECE 233	Introduction to Digital Systems	4
ECE 250	Electronic Device Modeling	4
ECE 300	Continuous-Time Signals & Systems	4
ECE 312	Communication Networks	4
ECE 332	Computer Architecture II	4
ECE 343	High-Speed Digital Design	4
ECE 362	Principles of Design	3
ECE 380	Discrete-Time Signals and Systems <sup>1</sup>	4
or ECE 320	Linear Control Systems	
ECE 460	Engineering Design I	3
ECE 461	Engineering Design II	4
ECE 462	Engineering Design III	2
CSSE 120	Introduction to Software Development	4
CSSE 220	Object-Oriented Software Development	4
CSSE 230	Data Structures and Algorithm Analysis	4
CSSE 232	Computer Architecture I	4
CSSE 332	Operating Systems	4
PH 111	Physics I	4
PH 112	Physics II	4
PH 113	Physics III	4
MA 111	Calculus I	5
MA 112	Calculus II	5
MA 113	Calculus III	5
MA 221	Matrix Algebra & Differential Equations I	4
MA 222	Matrix Algebra & Differential Equations II	4
MA 381	Introduction to Probability with Applications to Statistics	4
MA 374	Combinatorics	4
HUM H190	First-Year Writing Seminar	4
ENGL H290	Technical & Professional Communication	4
RHIT 100	Foundations for Rose-Hulman Success	1
ECE Area Electives		12
HSSA Elective		28
Math/Sci Elective		4
Restricted Science Elective		4
Technical Elective		4
Free Electives		8
<b>Total Hours</b>		<b>194</b>

<sup>1</sup> CPE students who are also earning the robotics minor MUST take ECE 320 Linear Control Systems.

The ECE Department will not allow the following second major combinations:

1. Degree in Electrical Engineering and a Second Major in Computer Engineering.
2. Degree in Computer Engineering and a Second Major in Electrical Engineering.

### Areas of Concentration

#### Enhanced Study in Communication Systems

Communications Certificate

Certificate Advisor: Dr. Yong Jin Kim

Information about Available Certificates (<https://www.rose-hulman.edu/academics/course-catalog/current/certificates.html>)