



COMPUTER ENGINEERING AT EASTERN ILLINOIS UNIVERSITY

NAME	
E NUMBER	
CATALOG	

2026-2027

GENERAL REQUIREMENTS: 30-38 HRS

LANGUAGE: 9 HRS

Grade of "C" or better is required.

COURSE	HOURS	GRADE	SEMESTER
ENG 1001G Composition & Language	3		
ENG 1002G Composition & Language II	3		
CMN 1310G Intro. to Speech Comm.	3		

HUMANITIES/FINE ARTS: 9 HRS

COURSE	HOURS	GRADE	SEMESTER
Humanities _____	3		
Fine Arts _____	3		
Humanities or Fine Arts _____	3		

SOCIAL/BEHAVIORAL SCIENCE: 9 HRS

Must be from two different disciplines. One course must meet Cultural & Diversity requirement

COURSE	HOURS	GRADE	SEMESTER
	3		
	3		
	3		

FUNDAMENTAL MATH & SCIENCES: 39 HRS

COURSE	HOURS	GRADE	SEMESTER
BIO 1500 General Biology I	4		
MAT 1441G Calculus and Analytic Geometry I	5		
MAT 2345 Elements of Discrete Mathematics	3		
MAT 2442 Calculus and Analytic Geometry II	5		
MAT 2443 Calculus and Analytic Geometry III	4		
MAT 3501 Differential Equations I	3		
MAT 3701 Probability and Statistics I	3		
PHY 1351G General Physics I	3		
PHY 1352G General Physics I Laboratory	1		
PHY 1361 General Physics II	3		
PHY 1362 General Physics II Laboratory	1		
PHY 1371 General Physics III	3		
PHY 1372 General Physics III Laboratory	1		

MAJOR ELECTIVES: 3 HRS

must take at least 3 semester hours

COURSE	HOURS	GRADE	SEMESTER

PHY 3410 (3) Electricity and Magnetism I
PHY 3420 (4) Electricity and Magnetism II
PHY 4320 (4) Computational Physics
EEN 4401 (3) Signals and Systems
EEN 4501 (4) Feedback & Control Systems
EEN 4601 (3) Semiconductor Device Physics

CSM 42751 (3) Internship in Computer Science
CSM 4985 (3) Artificial Intelligence and Machine Learning
BAIS 4700 (3) Advanced Networking

Major GPA based on those courses listed above taken at EIU. Some classes have additional prerequisites. See undergraduate catalog.

GRADUATION REQUIREMENTS:

<input type="checkbox"/>	120 Hours
<input type="checkbox"/>	40 SH of upper division courses (3000+)
<input type="checkbox"/>	30 SH in residence at EIU
<input type="checkbox"/>	30 SH junior-senior residency
<input type="checkbox"/>	12 SH senior residency
<input type="checkbox"/>	2.00 Cumulative GPA

SCIENTIFIC AWARENESS: 7 HRS

Biological & Physical disciplines required; lab required

COURSE	HOURS	GRADE	SEMESTER
Biological _____	3		
Physical _____	3		
Lab _____	1		

SENIOR SEMINAR: 3 HRS

Senior topic must be outside the major area. See Undergraduate Catalog for Senior Seminars outside of Biological Sciences.

COURSE	HOURS	GRADE	SEMESTER
EIU _____	3		

FOREIGN LANGUAGE: 0-8 HRS

Exempt if 2 yrs in high school with "C" average.

COURSE	HOURS	GRADE	SEMESTER
WL _____ G	4		
WL _____ G	4		

MATHEMATICS: 3 HRS

Complete in major.

COMPUTER SCIENCE/ENGINEERING: 46 HRS

COURSE	HOURS	GRADE	SEMESTER
CSM 2170 Computer Science I	4		
CSM 2670 Computer Science II	4		
CSM 3670 Principles of Computer Sys.	3		
CSM 3870 Data Structures	3		
CSM 4671 Computer Architecture	3		
CSM 4675 VLSI Design	3		
CSM 4880 Design & Analysis of Algorithms	3		
CSM 4970 Principles of Operating Sys.	3		
EEN 1001 Introduction to Physics & Eng.	1		
EEN 1100 Introduction to Logic Design	3		
EEN 1101 Introduction to Logic Design Laboratory	1		
EEN 3150 Electronics	4		
EEN 3270 Intro to Circuit Analysis	4		
EEN 4301 Digital Systems and Design	4		
EEN 4701 Senior Design	3		

RECOMMENDED COURSES

COURSE	HOURS	GRADE	SEMESTER
ECN 2801G Principles of Macroecon.	3		
CHM 1310G General Chemistry I	3		
CHM 1315G General Chemistry Lab I	1		
CIT 3853(2853) Cybersecurity Intrusion Detection & Prevention	3		
OSC 4850 Project Management	3		

<input type="checkbox"/>	2.00 Major GPA
<input type="checkbox"/>	Cultural Diversity
<input type="checkbox"/>	Application for Graduation (First semester junior year)
<input type="checkbox"/>	Electronic Writing Portfolio 1 <input type="checkbox"/> 2 <input type="checkbox"/>
	See www.eiu.edu/assess for requirements

COMPUTER ENGINEERING

If you're interested in how computers actually work, from the hardware inside your devices to the software that powers them, Computer Engineering at Eastern Illinois University gives you the best of both worlds.

This program combines electrical engineering and computer science so you can design, build, and improve the technology that shapes our everyday lives.

Why Study Computer Engineering?

Technology is evolving fast, and computer engineers are right at the center of it. From artificial intelligence to smart devices, this field continues to grow and create new opportunities.

At EIU, you'll prepare for careers in areas like:

- Computer hardware and systems design
- Software development and testing
- Artificial intelligence and machine learning
- Networking and cybersecurity
- Embedded systems and electronics

The demand for professionals in these areas continues to grow, with strong earning potential and long-term career stability.

Hands-On Experience

This program is built for students who learn by doing.

You'll gain experience through:

- Lab-based courses using professional equipment
- Collaborative projects
- A senior design project where you solve real engineering problems

EIU's labs and facilities support both hardware and software development, so you'll work with the same types of tools used in the field.

Built on Strong Foundations

Computer Engineering at EIU draws on expertise from multiple departments, including:

- Physics
- Electrical Engineering
- Mathematics & Computer Science

That means you'll learn from faculty with diverse backgrounds and real-world experience across the full spectrum of computing and engineering.

go.eiu.edu/computerengineering

SUGGESTED 4-YEAR SEQUENCE

YEAR 1 MUST EARN 30+ SH FOR SOPHOMORE STATUS		
FALL	SPRING	
MAT 1441 CSM 2170 Gen Ed Elective Gen Ed Elective	MAT 2442 MAT 2345 CSM 2670 Gen Ed Elective	
Total	Total	
YEAR 2 MUST EARN 60+ SH FOR JUNIOR STATUS		
FALL	SPRING	
MAT 2550 CSM 3670 CSM 3870 Gen Ed Elective Gen Ed Elective	CSM 4880 MCS Elective CSM 4885 Gen Ed Elective Gen Ed Elective	
Total	Total	
YEAR 3 MUST EARN 90+ SH FOR SENIOR STATUS		
FALL	SPRING	
MAT 3701 CSM 4270 CSM 3570 Gen Ed Elective Gen Ed Elective	CSM 3980 CSM 3070 (MCS Elective) CSM 4885 Gen Ed Elective Gen Ed Elective	
Total	Total	
SUMMER		
CSM 4275 Internship	Total	
YEAR 4 MUST EARN 120 SH TO GRADUATE		
FALL	SPRING	
BAIS 4700 BAIS 4770 CSM 3070 (MCS Elective) Gen Ed Elective	CSM 4970 CSM 4985 MCS Elective Gen Ed Elective	
Total	Total	

Why EIU?

- Learn both hardware and software, not just one or the other
- Get hands-on experience early and often
- Study in a program built on proven courses and resources
- Be part of a growing engineering community

Where This Degree Can Take You

Graduates are prepared for careers in a wide range of tech-focused industries or for continued study in graduate school.

Whether you want to design the next generation of devices, build smarter systems, or work on cutting-edge technology, Computer Engineering at EIU gives you the foundation to get there.