

PRE-ENGINEERING

ENGINEERING IS THE PROCESS OF SOLVING REAL PROBLEMS IN ALL REALMS OF OUR INCREASINGLY TECHNICAL WORLD.

The tools of the engineer are science and mathematics, but engineering also involves creativity and art, making models and using approximations. Engineers may be involved in designing land, water or space vehicles that operate more efficiently, or that utilize different energy sources. They are involved in designing systems that increase food production and systems that reduce or clean up pollution. They are involved in the construction and design of faster and "smarter" computer systems, of large electrical power systems, of roads and bridges, and so much more.

AT EIU WE WILL PREPARE ENGINEERS TO MAKE A DIFFERENCE IN THE WORLD THROUGH THEIR TECHNICAL ABILITIES, KNOWLEDGE, AND CREATIVITY.

PRE-ENGINEERING

Pre-engineering is a program designed to provide students with the first two years of a four-year engineering degree. Since the first two years of most programs require the same set of courses, students can transfer to an engineering school in any field of engineering with minimal difficulty.

B.S. IN ENGINEERING

EIU also offers part of a five-year dual degree program in conjunction with the University of Illinois at Urbana-Champaign (UIUC) or Southern Illinois University at Carbondale (SIUC) which requires students to take a third year of liberal arts enrichment at Eastern before transferring to UIUC or SIUC. At the end of this program, students graduate with two bachelor's degrees - one from Eastern and one from UIUC or SIUC.

B.S. IN PHYSICS, OPTION IN ENGINEERING PHYSICS

This is also a 3-2 program with three years at EIU and 2 years at another institution. This program is designed to combine studies in physics and engineering, producing workers with greater versatility and broader skills, making them more attractive to employers of scientists and engineers. Upon completion of the program, the student receives a Bachelor of Science in Physics, Option in Engineering Physics, from EIU, as well as an engineering degree from UIUC or SIUC.



ELECTRICAL ENGINEERING

Beginning with the Fall 2020 semester, EIU began offering full 4-year B.S. Electrical Engineering degree. This is a complete program for entering freshman and transfer students and an additional option for pre-engineering students after completing the pre-engineering curriculum.

WHY CHOOSE EIU?

+ EXPOSURE

Pre-Engineering students at Eastern are exposed to a wide variety of field options, enabling them to explore and obtain a broad base of experience before a final decision has to be made.

+ QUALIFIED FACULTY

Eastern has an outstanding, caring and accessible faculty. Classes and labs are taught by faculty holding Ph.D. degrees rather than by graduate students.

+ SMALL CLASSES

Introductory engineering physics classes, for example, average fewer than 25 students.

+ FLEXIBILITY OF TRANSFER

Students may transfer to an engineering school of their choice, including the University of Illinois at Urbana-Champaign, Southern Illinois University and the University of Missouri at Rolla, to name a few.

**FOR MORE INFORMATION,
PLEASE CONTACT:**

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www.eiu.edu/pre-eng

PRE-ENGINEERING



MANY ENGINEERING COLLEGES OFFER CURRICULA LEADING TO DEGREES IN:

- + Aeronautical/Astronautical Engineering
- + Agricultural Engineering
- + Bioengineering
- + Chemical Engineering
- + Civil Engineering (including specialties in):
 - + Environmental Engineering
 - + Geotechnical Engineering
 - + Hydrosystems Engineering
 - + Transportation Engineering, etc.
- + Computer Science
- + Electrical and Computer Engineering
- + Engineering Physics
- + General Engineering
- + Mechanical and Industrial Engineering
- + Materials Science and Engineering
- + Nuclear Engineering
- + Theoretical and Applied Mechanics



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