College of Engineering
Engineering Education Innovation Center (EEIC)
http://engineering.osu.edu/eeic/index.php
244 Hitchcock Hall; 2070 Neil Ave
Columbus, OH 43210-1278; 614-247-8953
Advisor: Robert J. Gustafson

This minor is designed for non-engineering students with an interest in learning more about technology’s important role in today’s society; and who may be working with engineers and technology based opportunities in the future. Specific learning goals include:

- Develop a basic understanding of the engineering design process
- Understand the capabilities and limitations of technologies and engineered systems
- Be able to make informed decisions about engineering activities and technologies
- Be able to work effectively as a member of a team including technology experts

The program advisor will work with you on selection of a suitable minor program to meet your specific career objectives. Upon completion of the minor, the advisor will approve and sign the Minor Program Form. You may then file the Minor Program Form with your college or school to receive a minor in Engineering Sciences.

**Key Curriculum Components**

- Core - Introduction to Engineering (4-8 credits)
- Complementary Engineering Science (2 credits minimum)
- Computational Technology Competence (2 credits minimum)
- Technology and Society (3 credits)
- Capstone interdisciplinary teamwork experience (3-6 credits)
- Total Credits (14 credit minimum)

**Note for students in the minor:**
You will be expected to complete a first calculus course (e.g., Math 1131 or 1151). This course will fulfill the math requirement of all courses for the minor. Other prerequisites will depend on courses selected.

**Core** of the Engineering Sciences Minor is the Introduction to Engineering course sequence:

ENGINEER 1181.01 or .02 and ENGINEER 1182.01 or .02 or .03 (Honors substitute permitted; 1281.01 or .02 or .03H and 1282.01 or .02 or .03H): 4-8 hours.

**ENGINEER 1181.xx - Fundamentals of Engineering 1**

Engineering problem solving utilizing computational tools such as Excel and Matlab; hands-on experimentation; ethics; modeling; teamwork; written, oral and visual communications.

**ENGINEER 1182.xx - Fundamentals of Engineering 2**

3-D visualization and sketching; introduction to CAD; engineering design-build; teamwork; written, oral and visual communications; and project management.

**Engineering Science Options**: 2 Credit Hours Minimum

- AEROENG 2200, CIVILENG 2050, FABENG 2110, DESIGN 3105, ISE 2000, 2010, 2400, 2500, MATSCEN 2010, Other Engineering courses by permission of the Minor Coordinator

**Computation Technologies Options**: 2 Credit Hours Minimum

- CSE 1111, 1112, 1113, 1211, 1221, 1222 or 1223, or 2221, ENGINEER 1221, 1222, 1281.01, 1281.02, or 1281.03

**Technology and Society Options**: 3 Credit Hours Minimum

- Comparative Studies 2340, 2367.04, ENGINEER 2360.01, 2360.02, 2367, History 2701, Physics 2367, SOC 3302

**Capstone Experience**: 3-6 Credit Hours

- ENGINEER 5081- Engineering Capstone Collaboration

Students contract to collaborate with an engineering capstone design team for at least one semester and contribute their disciplinary expertise.

**General Guidelines**

- Required for graduation: No
- Credit hours required: A minimum of 14

**Filing the Minor Program Form**: A Minor Program form must be filled out no later than the time the application for graduation is submitted to a college/school counselor. It will require the signature of the student and the student’s major program advisor.

**Changing the minor** Once the minor has been filed, any changes must be approved by the Chair of the Minor Oversight Committee. This form will be available on the CoE website.

- Grades required: No grade below a C- will be permitted in courses comprising the minor.
- A minimum 2.00 cumulative point-hour ratio is required for the minor.
- Course work graded Pass/Non-pass cannot count on the minor.
- Transfer credit hours allowed: No more than one half of the credit hours required on the minor.
- Overlap with the GE: Permitted

**Overlap Policy**: The College of Engineering places no restrictions on the use of a course both in a minor and major program. However, students should consult their major program for any constraints that may be applied there.

- Exclusions to minor: Not open to Engineering majors.

**Additional Guidelines for ASC Students**

- Overlap between minors: Each minor completed must contain 12 unique hours.
- Overlap with the major: Not allowed and the minor must be in a different subject than the major.

College of Arts and Sciences
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