

## Declaring/Changing a Major, Minor, or Applied Minor

### Section A: Policies and Instructions

#### Declaring a Major:

1. Students are required to file a declaration of major at the Registrar's Office no later than the end of their fourth semester.
2. A late fee of \$25.00 will be charged if the petition is submitted after the deadline.
3. A declared major may be changed at any time up to the add/drop deadline of the student's final semester by submitting a new major declaration form.

#### Declaring a Minor:

1. Minors are optional programs, you are not required to have a minor to graduate.
2. The deadline for declaring a minor is the 5th day of classes of the spring semester of the senior year.
3. Students must declare their Major Field of concentration before declaring a minor.

#### Declaring an Applied Minor:

1. Applied minors are optional programs, they are not required for graduation.
2. The deadline for declaring an applied minor is the 5th day of classes of the spring semester of the senior.

Progress towards completion of a major, a minor, and an applied minor will be tracked in DegreeWorks.

Complete Section B below and the relevant program section. Next to each requirement, indicate which semester (e.g. Fall 2023) you have taken or will take that course.

Your form must be signed by the Department/Program and your academic advisor (must be in your field of study for your major).

### Section B: Student Information

Student Name \_\_\_\_\_ ID# \_\_\_\_\_

Email \_\_\_\_\_ Date \_\_\_\_\_

Planned Date of Graduation: May \_\_\_\_\_ December \_\_\_\_\_ Year: \_\_\_\_\_

Select one:

- \_\_\_\_\_ I wish to declare my primary Major
- \_\_\_\_\_ I wish to declare a Minor
- \_\_\_\_\_ I wish to declare a second Major
- \_\_\_\_\_ I wish to declare an Applied Minor
- \_\_\_\_\_ I wish to change my Major

# Engineering

Use this form to declare a major in [Engineering](#).

Program [Engineering](#)

## Declaration/Change of Major

### Bachelor of Engineering

To earn a **Bachelor of Engineering** (designed for ABET accreditation), you must complete the following courses, in addition to general education requirements:

Five core engineering courses (19 - 20 credits)

Course Code	Course Title	Credit Hours	Semester
<input type="checkbox"/> ENGR 111	Intro to Engineering	4	
<input type="checkbox"/> ENGR 270	Engineering Mechanics	4	
<input type="checkbox"/> ENGR 290	Mass and Heat Transfer	4	
<input type="checkbox"/> ENGR 350	Circuit Theory	4	

### One of the following two courses:

Course Code	Course Title	Credit Hours	Semester
<input type="checkbox"/> ENGR 306	Engineering Thermodynamics	4	
<input type="checkbox"/> ENGR 374	Engineering Fluid Mechanics	3	

Eight core mathematics and basic science courses (30 credits)

Course Code	Course Title	Credit Hours	Semester
<input type="checkbox"/> PHYS 125	Matter in Motion (with Calculus)	4	
<input type="checkbox"/> PHYS 235	Electromagnetism, Waves and Optics (With Calculus)	4	
<input type="checkbox"/> MATH 180	Calculus A	4	
<input type="checkbox"/> MATH 280	Calculus B	4	
<input type="checkbox"/> MATH 320	Differential Equations	4	
<input type="checkbox"/> CS 128	Programming & Problem Solving	4	
<input type="checkbox"/> PHYS 360	Mathematical Methods and Physics	3	
<input type="checkbox"/> One of the following courses: BIOL 111, BIOL 112, CHEM 111, or GEOL 201		4	

A minimum of 20 elective credits

- A required independent research project or internship, which must be pre-approved by the program, and may be accomplished as a research class in Physics, Earth and Environmental Science, Chemistry, Biology, Computer Science, as a summer research experience on-campus or off-campus, as an approved Ford/Earlham research project, or as an internship with an engineering company.

Course Code	Course Title	Credit Hours	Semester
<input type="checkbox"/> ENGR 481	Internship, Field Studies, and Other Field Experiences	1-3	
<input type="checkbox"/> ENGR 485	Independent Student Research	1-3	
<input type="checkbox"/> ENGR 486	Research	0-3	

- Elective courses:
  - [ENGR 251](#): Socially Responsible Engineering
  - *ENGR 300: TBD*
  - ENGR 301: Geotechnical Engineering
  - *ENGR 302: TBD*
  - ENGR 303: Signals and Systems
  - *ENGR 304: TBD*
  - [ENGR 305](#): Strength of Materials
  - [ENGR 306](#): Engineering Thermodynamics
  - ENGR 307: Advanced Topics in Engineering
  - [ENGR 374](#): Engineering Fluid Mechanics
  - *ART/ENGR 308: TBD*
  - *ART/ENGR 309: TBD*

A year-long capstone project (5 credits)

Course Code	Course Title	Credit Hours	Semester
<input type="checkbox"/> ENGR 487	Senior Capstone A	2	
<input type="checkbox"/> ENGR 488	Senior Capstone B	3	

### Bachelor of Engineering Studies

To earn a **Bachelor of Engineering Studies** (not designed for ABET accreditation), you must complete the following courses, in addition to general education requirements:

Four of the following core engineering courses (16 credits)

Course Code	Course Title	Credit Hours	Semester
<input type="checkbox"/> ENGR 111	Intro to Engineering	4	
<input type="checkbox"/> ENGR 270	Engineering Mechanics	4	
<input type="checkbox"/> ENGR 350	Circuit Theory	4	
<input type="checkbox"/> One of the following courses: ENGR 306 or ENGR 374		4	

Six core mathematics and basic science courses (22 credits)

Course Code	Course Title	Credit Hours	Semester
<input type="checkbox"/> PHYS 125	Matter in Motion (with Calculus)	4	
<input type="checkbox"/> PHYS 235	Electromagnetism, Waves and Optics (With Calculus)	4	
<input type="checkbox"/> MATH 180	Calculus A	4	
<input type="checkbox"/> MATH 280	Calculus B	4	
<input type="checkbox"/> MATH 320	Differential Equations	4	
<input type="checkbox"/> PHYS 360	Mathematical Methods and Physics	3	

A minimum of 16 elective credits

- A required independent research project or internship, which must be pre-approved by the program, and may be accomplished as a research class in Physics, Earth and Environmental Science, Chemistry, Biology, Computer Science, as a summer research experience on-campus or off-campus, as an approved Ford/Earlham research project, or as an internship with an engineering company.

Course Code	Course Title	Credit Hours	Semester
<input type="checkbox"/> ENGR 481	Internship, Field Studies, and Other Field Experiences	1-3	
<input type="checkbox"/> ENGR 485	Independent Student Research	1-3	
<input type="checkbox"/> ENGR 486	Research	0-3	

- Elective courses:
  - [ENGR 251](#): Socially Responsible Engineering
  - *ENGR 300: TBD*
  - ENGR 301: Geotechnical Engineering
  - *ENGR 302: TBD*
  - ENGR 303: Signals and Systems
  - *ENGR 304: TBD*
  - [ENGR 305](#): Strength of Materials
  - [ENGR 306](#): Engineering Thermodynamics
  - ENGR 307: Advanced Topics in Engineering
  - [ENGR 374](#): Engineering Fluid Mechanics
  - *ART/ENGR 308: TBD*
  - *ART/ENGR 309: TBD*

A year-long capstone project (5 credits)

Course Code	Course Title	Credit Hours	Semester
<input type="checkbox"/> ENGR 487	Senior Capstone A	2	
<input type="checkbox"/> ENGR 488	Senior Capstone B	3	

This student is hereby approved to pursue a major \_\_\_\_\_ / minor \_\_\_\_\_ in accordance to the above plans (please enter your full name below).

Academic advisor \_\_\_\_\_ Date \_\_\_\_\_

Department/Program Convener \_\_\_\_\_ Date \_\_\_\_\_

This completed form must be emailed to [registrar@earlham.edu](mailto:registrar@earlham.edu) for processing. Your adviser and the Department/Program Convener must be copied on the email.

Registrar \_\_\_\_\_ Date \_\_\_\_\_