Welcome to the Department of Bioengineering

Matriculating Sophomore Bioengineers
BioE Website


**Note:** Bookmark this link & avoid googling the department website as you may link to older pages that are no longer maintained.

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Sidebar:

- Pertinent BioE forms
- HUM/SS list; these slides
- BMES, Science, etc.
- Best source for UG BioE
Curriculum at a glance
### Curriculum at a glance

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<th>MATHEMATICS</th>
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<th>MATH 0240</th>
<th>MATH 0290, MATH 1270</th>
<th>MATH 0280, MATH 1180, or MATH 1185</th>
<th>BIOENG 1000</th>
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<td>CHEM 0110, CHEM 0410, CHEM 0710, CHEM 0760, or CHEM 0960</td>
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<td>ENGR 0012, ENGR 0016, ENGR 0712, or ENGR 0716</td>
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<td>BIOENG 1310</td>
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<td>IMAGING COURSE</td>
<td>BIOENG 1160</td>
<td>BIOENG 1161</td>
<td>BIOENG 1085 (6 SEMESTERS)</td>
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<td>ADVANCED ENGINEERING/SCIENCE/TECHNICAL</td>
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Matriculating Sophomore Bioengineers | March 2021

Curriculum at a glance

MATHEMATICS

BASIC SCIENCES

CORE BIOENGINEERING

BIOENG 1255 - Fall
BIOENG 1580 - Spring
BIOENG 1680 - Spring

BIOENG 1210 or BIOENG 1211
BIOENG 1220
BIOENG 1310
BIOENG 1320
BIOENG 1255, BIOENG 1580, or BIOENG 1680
BIOENG 1630

BIOENG 1002
BIOENG 1150
IMAGING COURSE
BIOENG 1160
BIOENG 1161
BIOENG 1085 (6 SEMESTERS)

Fall/Spring
Fall
Spring
Fall/Spring
Spring
Fall/Spring

BIOENG 1000
BIOENG 1070
BIOENG 1071 or BIOENG 1072
BIOENG 1241
Curriculum at a glance

MATHEMATICS

BASIC SCIENCES

CORE BIOENGINEERING

- BIOENG 1210 or BIOENG 1211
- BIOENG 1220
- BIOENG 1310
- BIOENG 1320
- BIOENG 1255, BIOENG 1580, or BIOENG 1680

- BIOENG 1000
- BIOENG 1070 or BIOENG 1072
- BIOENG 1241

- BIOENG 1085 (6 SEMESTERS)

- BIOENG 1002
- BIOENG 1150
- IMAGING COURSE
- BIOENG 1160
- BIOENG 1161

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### First-Year Course Snapshot

- May have **AP** or other **Transfer Credits**
- May have taken more **advanced courses**
- However, should have completed reflected courses by Fall 2021 semester
Typical Sophomore-Year Course Snapshot | Fall

**MATHEMATICS**
- **Pre-req:** MATH 0230
- **Pre-req:** MATH 0240 or MATH 1270

**BASIC SCIENCES**
- **Pre-req:** BioE Sophomore
- **Pre-req:** MATH 0230 & PHYS 0174

**BASIC ENGINEERING**
- **Pre-req:** MATH 0230 & PHYS 0174

**CORE BIOENGINEERING**
- **Pre-req:** MATH 0230 & PHYS 0174

**BIOENGINEERING TRACK**
- **Pre-req:** BioE Sophomore
- **Pre-req:** MATH 0230 & PHYS 0174

- **See BioE Seminar** (after BioE Tracks)

- **See BioE Tracks** (next slide)

- **ELECTIVE 1**

- **BIOENG 1085** (6 SEMESTERS)

- **ENGR 0135**

- **MATH 0240**

- **MATH 0290** or **MATH 1270**

- **BIOENG 1070**

- **BIOSC 005x** or **BIOSC 006x**
## BioE Tracks

<table>
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<tr>
<th>TRACK</th>
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<tr>
<td>Bioimaging &amp; Signals</td>
<td><strong>CHEM 0310 or BIOENG 1351</strong></td>
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<tr>
<td>Biomechanics</td>
<td><strong>CHEM 0310 or BIOENG 1351</strong></td>
</tr>
<tr>
<td>Cellular Engineering</td>
<td><strong>CHEM 0310</strong></td>
</tr>
<tr>
<td>Medical Product Engineering</td>
<td><strong>CHEM 0310 or BIOENG 1351</strong> BioENG 1024 or MEMS 0024 or IE 1051**</td>
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### Notes
- **CHEM 0310** and **CHEM 0320** are approved Track Courses for all BioE Tracks
- Pre-med student can choose any Track! **Pre-med** should plan to take **CHEM 0310** in Fall, **CHEM 0320** in Spring w/ **CHEM 0345** (lab, 2 credits)
BioE Seminar (BIOENG 1085)

- You **must** register for **BIOENG 1085** every semester

- **Six** (6) **S** grades in **BIOENG 1085** are required for graduation (special case applies to semester abroad)

- Attending seminar during **first semester of sophomore year** is a **must**
  - If you encounter enrollment issues, e.g., **waitlisted full**, fill out the designated **SurveyMonkey Form** to have the undergraduate administrator (Mrs. Schuetz) enroll you in the course
  - Could also directly email Mrs. Schuetz (**eeschuetz@pitt.edu**)

- After **first semester of sophomore year**, above constraint changes
Other Course Options for Fall

In case you have completed some of the typical sophomore year courses (see Typical Sophomore-Year Course Snapshot | Fall), below are other options to consider:

- Already have **MATH 0240** — take **BIOENG 1000** (statistics)
- Already have **MATH 0290** — take **MATH 0280** (linear algebra)
- Already have **CHEM 0310** — take **CHEM 0320** (& **CHEM 0345**)
- If you have AP credit for **BIOSC 0160** — can take **BIOSC 1250** (Human Physiology)
- None of the above — discuss options with undergraduate program director (that is, AM)
Matriculating Sophomore Bioengineers

**Typical Sophomore-Year Course Snapshot | Spring**

**Pre-req:** MATH 0230 | BIOENG 1000

**Pre-req:** BIOENG 1070 | BIOENG 1071 or BIOENG 1072

**Note:** Could replace w/ Track Course

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**Pre-req:** (MATH 0290 & PHYS 0175 & CHEM 0120)

**Pre-req:** MATH 0240 & PHYS 0175

**Pre-req:** ENGR 0135

**Pre-req:** MATH 0240 & PHYS 0175

**Pre-req:** ENGR 0135

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**Side note:** Connection between Fall 2021 & Spring 2022 courses

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Matriculating Sophomore Bioengineers | March 2021
General Notes to be Cognizant of

Degree Requirements

- Students are responsible for knowing degree requirements and insuring that they meet the requirements
- Please explore and read the UG BioE Program Handbook for all aspects of the program

Course Selection

- Students are responsible for selecting courses

Advising

- Students will be assigned a departmental advisor during their junior year
Undergraduate Administrator
Mrs. Erin Schuetz (eeschuetz@pitt.edu)
**Office Hours:** Monday-Friday: 8.00am-4.30pm
Please note that Mrs. Schuetz is the go-to person for all course admin-related matters (such as, enrollment, transfer credits, over 18 credits, etc.)

Undergraduate Program Director
Arash Mahboobin (mahboobin@pitt.edu)
**Office Hours:** By appointment (online scheduler: https://calendly.com/mahboobin)
**Note:** Meetings will be conducted through Zoom.
https://pitt.zoom.us/j/5659816492 | Passcode: 134377
Welcome to the Department of Bioengineering

Matriculating Sophomore Bioengineers