



Matriculating **Sophomore** Bioengineers

**UG**

**HAND  
BOOK**

**BIOE**

Pièce de résistance of the  
UG Program

Best **source** for program  
requirements & more...

Living document

(current slides accessible through  
appendix I: **Matriculating  
Sophomore Bioengineers**)

**UG**

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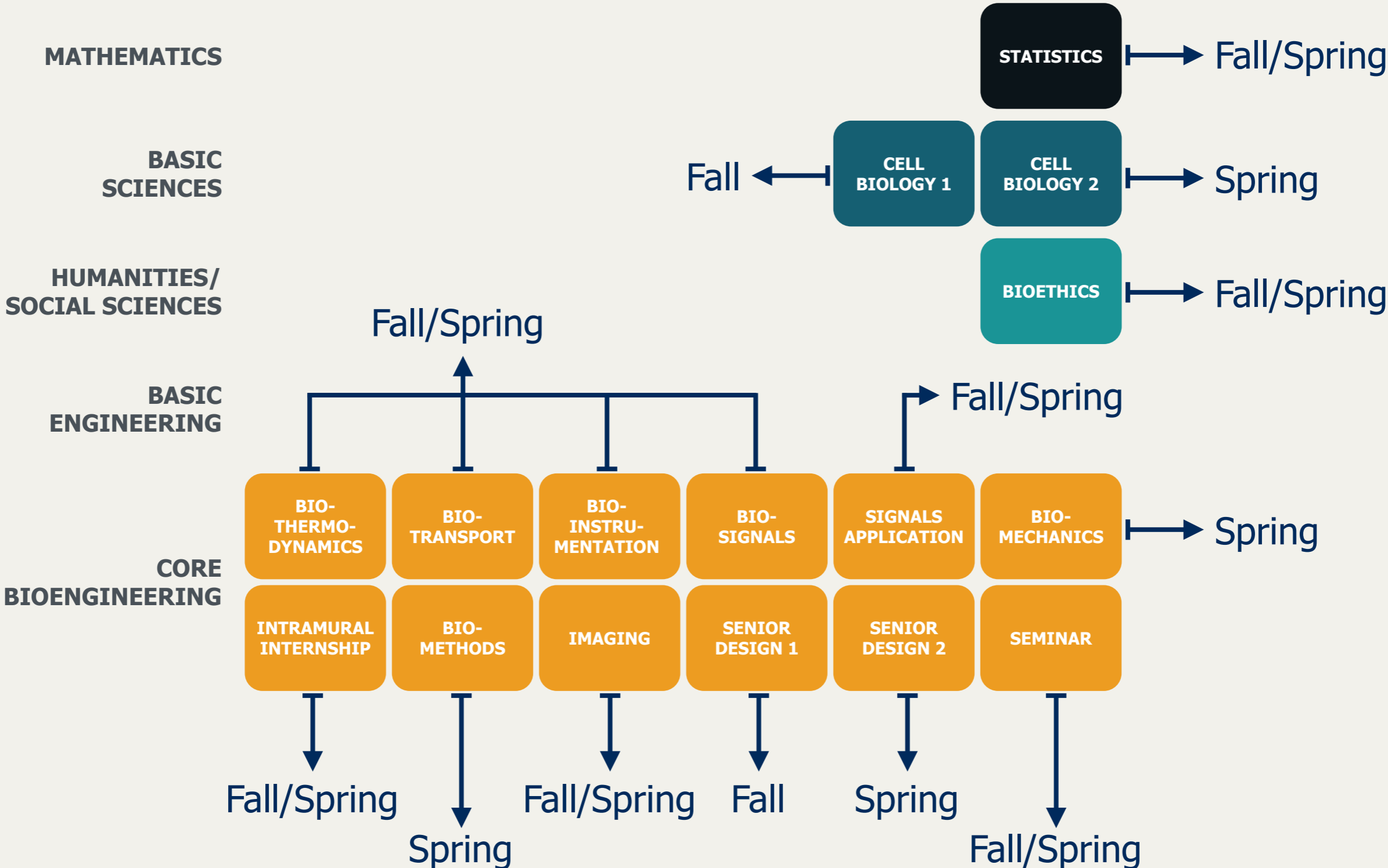
Please avoid googling the department website as you may link to older pages that are no longer maintained

Please **do not** download the handbook as it is a **living document**

# Bioengineering Undergraduate Program



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# First-Year Courses

- May have **AP** or other **Transfer Credits**
- May have taken more **advanced** courses
- Hopefully, will have completed **Calculus 1 & 2, Physics 1 & 2, Chemistry 1 & 2, Engineering Analysis & Computing, and English Composition 1 & 2** by Fall semester of sophomore year

# Fall Semester | Sophomore-Year Courses

Calculus 3 (MATH 0240, 4 credits)

Differential Equations (MATH 0290, 3 credits)

Cell Bio 1 (BIOENG 1070, 3 credits) → Fall only course

Biology Lab (BIOSC 005x or BIOSC 006x, 1 credit)

Statics (ENGR 0135, 3 credits)

BioE Seminar (BIOENG 1085, 0 credits)

Other Courses



# BioE Seminar (BIOENG 1085, 0 credits)

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 **requirement**

However, after first semester of sophomore year, you are permitted to enroll in a class that has a time conflict with seminar

# Other Course Suggestions

TRACK	COURSE/CHOICE
Bioimaging & Signals	CHEM 0310 (OCHEM 1)
Biomechanics	CHEM 0310
Cellular Engineering	CHEM 0310
Medical Product Engineering	CHEM 0310 or <u>BIOENG 1024</u> or MEMS 0024 or IE 1051

**CHEM 0310** (OCHEM 1) and **CHEM 0320** (OCHEM 2) are approved Track Courses for all BioE Tracks

**Pre-med** students can choose any Track! Pre-med students should plan to take **CHEM 0310** in Fall & **CHEM 0320** in Spring (w/ **CHEM 0345** — lab, 2 credits)

## Other Course Suggestions Cont.

In case you have completed some of the **sophomore-year courses**, you can consider:

Completed **MATH 0240** → consider biostatistics (**BIOENG 1000**, 4 credits) or bioinstrumentation (**BIOENG 1310**, 3 credits)

Completed **MATH 0290** → consider linear algebra (**MATH 0280**, 3 credits) or biothermodynamics (**BIOENG 1210**, 3 credits)

Completed **CHEM 0310** → consider **CHEM 0320** (& possibly **CHEM 0345** towards a Chemistry Minor)

If you have **AP** credit for **BIOSC 0160** — consider human physiology (**BIOSC 1250**, 3 credits)

# BIOENG-Designated Courses

Please note that **BIOENG**-designated courses are **not offered** during the Summer Term

Prior to officially entering the Bioengineering Program, you require permission codes to **enroll** in **BIOENG**-designated courses

Kindly stay tuned for further communication from the Bioengineering Department ([BIOEUGAD@pitt.edu](mailto:BIOEUGAD@pitt.edu))

# Important Notes

Students are responsible for knowing **degree requirements**

Peruse chapters 1 & 2 of the **handbook**

Students are responsible for **selecting courses**

Be cognizant about semester offerings (**Fall/Spring**),  
level (**Soph/Jr/Sr**), and **pre-requisites**

Students will be assigned a departmental **faculty advisor**  
during their **junior** year

During **sophomore** year, you will be advised by the  
Bioengineering Program Director & Assistant Director

# Looking Ahead

Differential Equation & PHYS 0175 & chemistry 2 pre-requisites of biothermodynamics (BIOENG 1210, 3 credits)

MATH 0240 & PHYS 0175 pre-requisites of bioinstrumentation (BIOENG 1310, 3 credits)

ENGR 0135 pre-requisite of biomechanics 1 (BIOENG 1630, 3 credits)

BIOENG 1070 pre-requisite of Cell Bio 2 (BIOENG 1071, 3 credits → Spring only course)

# Contacts

## Assistant Director of Undergraduate Programs

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## Associate Chair for Undergraduate Education

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