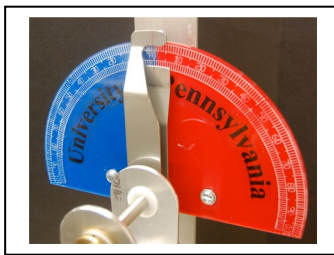


Fall 2022 Guide for MEAM freshmen

Welcome to MEAM! Here are some recommendations for your first semester in college.

Required courses for MEAM majors:



★ MEAM 1100 Intro to Mechanics and MEAM 1470 Intro to Mechanics Lab

These courses teach the fundamentals of mechanics from an engineering point of view. Physics 0150 also fulfills these requirements.

What are students saying about MEAM 1100 and MEAM 1470 ?

"It was nice to study physics with problems that were related to engineering."

AP Credit: A score of 5 on AP Physics C: Mechanics fulfills both the MEAM 1100 and MEAM 1470 requirements (it will appear as PHYS 0150 on your transcript).

A Levels: An A* or A grade on the Physics exam fulfills both the MEAM 1100 and MEAM 1470 requirements.

International Baccalaureate: A score of 7 or 6 fulfills both the MEAM 1100 and MEAM 1470 requirements.

Students with AP, A Level, or IB credit may still elect to take MEAM 1100 and MEAM 1470 to strengthen their understanding of mechanics, get an introduction to MATLAB, and meet other MEAM students. *Doing so forfeits your exam credit, as you cannot count equivalent credits toward your degree.*



★ MATH 1400 Calculus I and MATH 004 Calculus I Lab or MATH 1410 Calculus II and MATH 014 Calculus II Lab

A firm foundation in math is very important – please don't skip ahead to MATH 1410 unless you are confident in your MATH 1400 skill set.

AP Credit: A score of 5 on the AP Calculus BC exam fulfills the Math 1400 requirement.

Math Department Website: <https://www.math.upenn.edu/undergraduate/advice-new-students>



★ CHEM 1012 General Chemistry I

[Sections 4 & 5 are recommended; they are tailored to SEAS students] or

★ BIOL 1121 Intro to Biology: The Molecular Biology of Life

If choosing Chemistry, we suggest taking it in the fall semester since there are many sections offered. However, if it doesn't fit in your schedule, it's fine to take it in the spring. BIOL 1121 is only offered in the fall semester.

AP Credit: A score of 5 on the exam fulfills the Chem 1012 requirement (it will appear as EAS 0091 on your transcript).

Please note: The Chemistry department offers placement exams during the first week of the fall semester. See more details on the Chemistry department website:

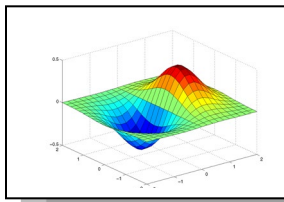
<https://www.chem.upenn.edu/undergraduate/general-chemistry-equivalency-exam-information-and-registration>

What else should I take?

Take an elective in the College to add a bit of variety to your schedule, such as one of the following:

Social Science & Humanities: https://ugrad.seas.upenn.edu/student-handbook/courses-requirements/social-sciences-and-humanities-breadth/
Technology, Business & Society: https://ugrad.seas.upenn.edu/student-handbook/courses-requirements/technology-in-business-and-society-courses/
Writing Requirement: https://ugrad.seas.upenn.edu/student-handbook/courses-requirements/writing-requirement/

If you still have room in your schedule, consider...



★ ENGR 1050 Introduction to Scientific Computing

This course fulfills the MEAM programming requirement. It teaches programming using MATLAB. It is also offered in the spring. If you have AP credit for CIS 1100, you do not need to take this course because your MEAM programming requirement is satisfied; however, you may want to take it anyway since the use of MATLAB is so deeply integrated into the MEAM curriculum.

What are students saying about ENGR 1050?

“ENGR 105 was useful because it helped me learn the syntax. I used that knowledge later on. Solving problems in a different language is really useful to learn.”

“Extremely useful. We used Matlab every semester since we took this class.”



★ MEAM 1010 Introduction to Mechanical Design

A project-based elective that covers the basics of the design process, from the initial idea, all the way to fabrication. Students learn computer-aided design (SolidWorks) and rapid prototyping (laser cutter and 3D printing). It is also offered in the spring. This course is a required prerequisite for the popular course MEAM 2010 Machine Design and Manufacturing.

**Please note: SEAS seniors are not permitted to register for this course. We encourage you to take this course early in your academic career.*

What are students saying about MEAM 1010?

“Great class, the projects are fun and interesting, and valuable skills are learned, especially in SolidWorks. Great for any engineering major, not just MEAM.”

“Since this course was based primarily on the learning and use of SolidWorks, I felt that I was truly learning something that would be useful to me in the future.”

Try to maintain a balanced course load of about 4.5 or 5 CUs each semester.

Support

The first semester of college can be tough. Even those who sailed through high school can find themselves overwhelmed at times. Don't be afraid to reach out for support!!

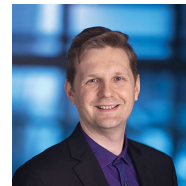
★MEAM Academic Coordinator for Undergraduate Programs

Katie Knorr
kknorr@seas.upenn.edu
Tel: 215-898-4825
Hours: 9am-5pm, Monday-Friday

If you have a question and don't know whom to ask, send Katie an email and she will help you!

★MEAM Undergraduate Chair:

Prof. Igor Bargatin
bargatin@seas.upenn.edu



★MEAM faculty advisor: www.me.upenn.edu/about-people/index.php

The name and e-mail address of your faculty advisor were sent to you via email and are available on Path@Penn.

★Counseling and Psychological Services

www.vpul.upenn.edu/caps/
3624 Market Street, 1st Floor West
In-Office Hours: Monday - Wednesday, 9:00am-7:00pm; Thursday & Friday,
9:00am - 5:00pm; and Saturday, 10:00am - 3:00pm
All services are available via telehealth and in-person
Tel: 215-898-7021 (available 24/7)

★SEAS Office of Diversity and Inclusion

<https://diversity.seas.upenn.edu/>
Working Hours: 9am - 5pm, Monday - Friday
Tel: 215-898-7084

★SEAS Research and Academic Services (RAS)

<https://ras.seas.upenn.edu/staff-advising-information-hours/>
Working Hours: 9am - 5pm, Monday - Friday
In-Person Walk-In Advising: 2pm - 4pm, Monday - Thursday
Tel: 215-898-7246

★Weingarten Learning Resources Center

<http://www.vpul.upenn.edu/lrc/>

Hamilton Village, 220 S. 40th St., Suite 260

Working Hours: 9am - 5pm, Monday - Friday

Tel: 215-573-9235

See below for a list of the student organizations that are most closely related to MEAM:

- American Society of Mechanical Engineers (ASME)
- National Society of Black Engineers (NSBE)
- oSTEM at Penn (Out in Science, Technology, Engineering & Mathematics)
- Penn Aerial Robotics
- Penn Aerospace Club
- Penn Electric Racing (PER)
- Penn EWB- Engineers Without Borders
- SEAS Wellness
- Society of Asian Scientists & Engineers (SASE)
- Society of Hispanic Professional Engineers (SHPE)
- Society of Women Engineers (SWE)
- Women in MEAM (WiM)