

# Fall 2017 Guide for MEAM freshmen

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

## Required courses for MEAM majors:



### ★ MEAM 110 Intro to Mechanics and MEAM 147 Intro to Mechanics Lab

These courses teach the fundamentals of mechanics from an engineering point of view. Physics 150 also fulfills these requirements.

What are students saying about MEAM 110 and MEAM 147?

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

*"Combined, the two courses make for an excellent pairing, simply because it really helps to see formulas and theory in lecture and then apply that knowledge in actual hands-on demonstrations in lab."*

**AP Credit:** A score of 5 on AP Physics C: Mechanics fulfills both the MEAM 110 and MEAM 147 requirements (it will appear as PHYS 150 on your transcript).

**A Levels:** An A grade on the Physics exam fulfills both the MEAM 110 and MEAM 147 requirements.

**International Baccalaureate:** A score of 7 or 6 fulfills both the MEAM 110 and MEAM 147 requirements.

Students with AP or A Level credit may still elect to take MEAM 110 and MEAM 147 to strengthen their understanding of mechanics, get an introduction to MATLAB, and meet other MEAM students. Doing so forfeits your credit, as you cannot count equivalent credits toward your degree.



### ★ MATH 104 Calculus I

[section 6 is strongly recommended; it is tailored to SEAS students] or  
**MATH 114 Calculus II**

A firm foundation in math is very important – please don't skip ahead to MATH 114 unless are confident in your MATH 104 skill set.

**AP Credit:** A score of 5 on the AP Calculus BC exam fulfills the Math 104 requirement.

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



### ★ CHEM 101 General Chemistry I

[Sections 4 & 5 are recommended; they are tailored to SEAS students] and  
**CHEM 053 General Chemistry I Lab**

We suggest taking Chemistry and its lab 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.

**AP Credit:** A score of 5 on the exam fulfills the Chem 101 requirement (it will appear as EAS 091 on your transcript). You will still need to take CHEM 053 (lab).

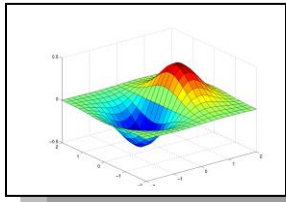
**Please note:** the Chemistry department offers placement exams during the first week of the fall semester. See more details on the Chemistry department website: <https://www.chem.upenn.edu/content/general-chemistry-placement-exam>

## 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:

<b>Social Science &amp; Humanities:</b> <a href="http://www.seas.upenn.edu/undergraduate/handbook/courses/ssh-breadth.php">http://www.seas.upenn.edu/undergraduate/handbook/courses/ssh-breadth.php</a>
<b>Technology, Business &amp; Society:</b> <a href="http://www.seas.upenn.edu/undergraduate/handbook/courses/tech-bus-courses.php">http://www.seas.upenn.edu/undergraduate/handbook/courses/tech-bus-courses.php</a>
<b>Writing Requirement:</b> <a href="http://www.seas.upenn.edu/undergraduate/handbook/courses/writing-requirement.php">http://www.seas.upenn.edu/undergraduate/handbook/courses/writing-requirement.php</a>

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



### ★ ENGR 105 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 110, 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 105?

*“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 101 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 201 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 101?

*“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 5 or 5.5 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!!

★**Orientation Peer Advisor:** [www.seas.upenn.edu/undergraduate/freshman/peer-advising.php](http://www.seas.upenn.edu/undergraduate/freshman/peer-advising.php)

★**MEAM Undergraduate Coordinator:**

Lauren Kemp  
Towne Building, Room 229  
Hours: 9am-5pm, Monday-Friday  
[laurem@seas.upenn.edu](mailto:laurem@seas.upenn.edu)  
Tel: 215-898-4825



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

★**MEAM Associate Chair for Undergraduate Affairs:**

Prof. Paulo Arratia  
Towne Building, Room 271  
[parratia@seas.upenn.edu](mailto:parratia@seas.upenn.edu)



★**MEAM faculty advisor:** [www.me.upenn.edu/about-people/index.php](http://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 Penn InTouch.

★**Counseling and Psychological Services**

[www.vpul.upenn.edu/caps/](http://www.vpul.upenn.edu/caps/)  
3624 Market Street, 1<sup>st</sup> Floor  
Hours: : 9am-5pm, Monday, Tuesday, and Friday  
9am-7pm, Wednesday and Thursday  
Tel: 215-898-7021

★**SEAS Office of Diversity and Inclusion**

<http://www.seas.upenn.edu/undergraduate/advising/multi-cultural.php>  
220 South 33<sup>rd</sup> Street, 125 Towne Building  
Office Hours: 9am - 5pm, Monday – Friday  
Tel: 215-898-7084

★**SEAS Research and Academic Services (RAS)**

<http://www.seas.upenn.edu/undergraduate/advising/ras.php>  
220 South 33<sup>rd</sup> Street, 109 Towne Building  
Office Hours: 9am - 5pm, Monday – Friday  
Tel: 215-898-7246

**★Tutoring Center**

<http://www.vpul.upenn.edu/tutoring/index.php>

220 South 40th Street, Suite 260

Office Hours: 9am - 5pm, Monday – Friday

Tel: 215-898-8596

**★Weingarten Learning Resources Center**

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

Stouffer Commons, Suite 300

3702 Spruce Street

Office Hours: 9am - 5pm, Monday – Friday

Also open for extended study hours on Sundays from noon to 5:00 p.m. and

Mondays through Thursdays from 9 a.m. through 9 p.m.

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
- Penn Electric Racing (PER)
- Society of Hispanic Professional Engineers (SHPE)
- Society of Women Engineers (SWE)