

ROBOTICS, MSE

The master's degree in Robotics (ROBO) is a multi-disciplinary program jointly sponsored by the Departments of Computer and Information Science, Electrical and Systems Engineering, and Mechanical Engineering and Applied Mechanics.

Housed and administered by the GRASP Lab, one of the top robotics research centers in the world, Penn's ROBO master's program educates students in the science and technology of robotics, vision, perception, control, automation, and machine learning. Our students hail from a variety of engineering, scientific, and mathematical backgrounds, united by a passion for robots and a desire to advance robotic technologies to benefit humanity. Our program provides an ideal foundation for jobs in a variety of industries including robotics, aerospace, automotive, industrial automation and defense; it also provides a solid basis for further graduate studies.

For more information: <https://www.grasp.upenn.edu/academics/masters>
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Curriculum

Code	Title	Course Units
Foundational Courses		
Select 3 Foundational courses ¹		3
Technical Electives		
Select 5 Technical electives ²		5
General Elective		
Select 2 General electives ³		2
Total Course Units		10

1

1 course from 3 out of the 4 areas (Artificial Intelligence; Robot Design & Analysis; Control; Perception); 3 courses total required.

2

5 courses are required from the approved Technical Elective list.

3

2 graduate level courses are required; choose from:

- MATH, CIS, ESE, MCIT, or MEAM courses
- Foundational Course areas
- Technical Elective List
- Certain courses will only be considered general electives (such as EAS 5450 Engineering Entrepreneurship I, EAS 5460 Engineering Entrepreneurship II). A full list may be found here (<https://www.grasp.upenn.edu/academics/masters/current/>).
- Courses from other disciplines with pre-approval of the Program Director.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2022 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
