

ROBOTICS (MINOR)

Program Description

The Minor in Robotics provides students with a foundation in the fundamental areas of the interdisciplinary field of robotics. Together with a degree in engineering or computer science, the Minor in Robotics prepares students for careers and graduate studies in robotics.

Admissions

New York University's Office of Undergraduate Admissions supports the application process for all undergraduate programs at NYU. For additional information about undergraduate admissions, including application requirements, see How to Apply (<https://www.nyu.edu/admissions/undergraduate-admissions/how-to-apply.html>).

Program Requirements

The minor requires the completion of 14 credits, comprised of the following:

Course	Title	Credits
ROB-UY 2004	ROBOTIC MANIPULATION AND LOCOMOTION	4
ROB-UY 3203	ROBOT VISION	3
ROB-UY 3303	ROBOT MOTION AND PLANNING	3
ROB-UY 3404	INTRODUCTION TO HAPTICS AND TELEROBOTICS IN MEDICINE	4
Total Credits		14

Interested students should allow 4 semesters (two years) to complete the four courses for the Minor in robotics.

Minor Prerequisites

The courses for the Minor in Robotics have the following prerequisites in computer science, mathematics, and physics.

1. Computer Science - Introduction to Programming
2. Mathematics - Differential Equations and Linear Algebra
3. Physics - Mechanics

Students at NYU Tandon and other schools of NYU who meet the prerequisites may enroll in ROB-UY courses. Various courses across NYU schools and NYU global campuses satisfy these prerequisites, as follows.

1. The Computer Science prerequisite is satisfied by any of the following:

Course	Title	Credits
CS-UY 1114	INTRO TO PROGRAMMING & PROBLEM SOLVING	4
CS-UY 1113	PROBLEM SOLVING AND PROGRAMMING I	3
CS-UY 1133	Engineering Problem Solving and Programming	3
ENGR-UH 1000	Computer Programming for Engineers	4
CS-UH 1001	Introduction to Computer Science	4
CSCI-SHU 11	Introduction to Computer Programming	4
CSCI-SHU 101	Introduction to Computer and Data Science	4

2. The Mathematics prerequisites is satisfied by a single course covering linear algebra and differential equations or by separate courses in linear algebra and differential equations.

Course	Title	Credits
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Select one of the following options:

Option 1: Single course covering linear algebra and differential equations

MA-UY 2034	Linear Algebra and Differential Equations	4
or MATH-SHU 265	Linear Algebra and Differential Equation	

Option 2: Separate courses in linear algebra and differential equations

Select one of the following courses in linear algebra: 4

MA-UY 3034	APPLIED LINEAR ALGEBRA	
MATH-UA 140	Linear Algebra	
MATH-UH 1022	Linear Algebra	
MATH-SHU 140	Linear Algebra	

Select one of the following courses in differential equations: 4

MA-UY 4204	Ordinary Diff Equations	
MATH-UA 262	Ordinary Diff Equations	
MATH-UH 1024	Fundamentals of Ordinary Differential Equations	
MATH-SHU 262	Ordinary Differential Equations	

3. The Physics prerequisite is satisfied by any of the following:

Course	Title	Credits
PH-UY 1013	MECHANICS	3
PHYS-UA 11	General Physics I	5
PHYS-UA 91	Physics I	3
ENGR-UH 2012	Conservation Laws in Engineering	2
PHYS-SHU 11	General Physics I	3
PHYS-SHU 91	Foundations of Physics I Honors	3

Notes

'UH' designates courses offered at NYU-Abu Dhabi

'SHU' designates courses offered at NYU-Shanghai

Policies

Minor GPA Policy

In order for the Minor to be awarded and recorded on the official student transcript, the student must obtain an overall 2.00 GPA in the Minor courses.

NYU Policies

University-wide policies can be found on the New York University Policy pages (<https://bulletins.nyu.edu/nyu/policies/>).

Tandon Policies

Additional academic policies can be found on the Tandon academic policy page (<https://bulletins.nyu.edu/undergraduate/engineering/academic-policies/>).