

**COLLEGE OF ENGINEERING**

- Any engineering major may declare a “Minor in Robotics Engineering” field of study, which will be listed on the student’s academic record after graduation. Requirements may be satisfied by completing 18 credit hours. Student must complete one of the following options, as well as an additional two courses (6 credits) from the list of supporting courses. Major does not restrict the choice of option.

**Option 1, Ocean Engineering Focus: (12 credits)**

- Linear Algebra (MTH 215)
- Foundations of Robotics (ELE/MCE/OCE 456) (offered Fall semester)
- Robotic Ocean Instrumentation Design (OCE360)
- Design of Remotely Operated Vehicles (OCE467)

**Option 2, Mechanical Engineering Focus: (12 credits)**

- Linear Algebra (MTH 215)
- Foundations of Robotics (ELE/MCE/OCE 456) (offered Fall semester)
- Control Systems (MCE431)
- Mechatronics (MCE433)

**Option 3, Electrical Engineering Focus: (12 credits)**

- Linear Algebra (MTH 215)
- Foundations of Robotics (ELE/MCE/OCE 456) (offered Fall Semester)
- Digital Control Systems & Lab (ELE 458/459)
- Mobile Computing (ELE 470)

**Supporting Courses: (Choose 2 other courses - 6 credits total.)**

<b>Offered during a typical Fall semester</b>		
Electrical	Mobile Computing	ELE470
Mechanical	Mechatronics	MCE433
Ocean	Robotic Ocean Instrumentation Design	OCE360
	Hydrodynamics	EGR515

<b>Offered during a typical Spring semester</b>		
Electrical	Microprocessors	*ELE205/206
	Digital Control Systems & Lab	ELE458/459
	Computer Vision	ELE583
Mechanical	System Dynamics	**MCE366
	Control Systems	MCE431
	Real-Time Monitoring and Control	MCE530
	The Mechanics of Robot Manipulators	MCE566
Ocean	Design of Remotely Operated Vehicles	OCE467
	Biomimetrics in Ocean Engineering	OCE516
	Modeling, Simulation, and Control of Marine Vehicles	OCE562
Oceanography	Modern Oceanographic Imaging and Mapping Technique	OCG555

\*may not be counted toward minor requirements for ELE majors

\*\*may not be counted toward minor requirements for MCE majors

- With prior approval, supporting courses may be substituted with appropriate other courses including special projects.
- Application for the robotics engineering minor must be filed in the Engineering Dean’s Office any time before graduation.

Name: \_\_\_\_\_ Student ID #: \_\_\_\_\_

Major: \_\_\_\_\_ Intended Graduation Date: \_\_\_\_\_

**Name of Minor:** Robotics Engineering  
**Focus Area (select one):** Ocean / Mechanical / Electrical

Course Number	Course Title	#Credits	Grade
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

\_\_\_\_\_  
 Ocean, Mechanical, or Electrical Engineering Robotics Program Coordinator Signature      Date

\_\_\_\_\_  
 Assistant Dean's Signature      Date

**Program Coordinators**

**Mechanical Engineering Focus**

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