



**SUMMER
SPRINGBOARD**
Look Inward. Go Upward.

ENGINEERING – A PROJECT BASED INTRODUCTION INFOSHEET

**New student admissions for
Summer 2026 are open**

2-Week Course

This is a two-week program where you'll focus on one course for the entire duration.

Program Highlights

- Students will explore fundamental concepts in fluid propulsion, hydrostatics and hydrodynamics, robotics, structural integrity, engineering process, controls, and practical operations, culminating in building and operating a SeaPerch aquatic robot.
- Emphasizes independent understanding of physics and mathematics through hands-on creation of useful artifacts.
- Learn from professionals in the field about the latest advancements in engineering and technology.

2026 Dates

MIT Campus*

- Session 2: July 5 - July 17
- Session 3: July 19 - July 31



Academic Program Overview

This engaging course experience has no prerequisites, making it accessible for freshmen while still offering valuable challenges for seniors, as project decisions will influence task complexity. The teaching philosophy encourages students to independently build on their understanding of physics and mathematics through the creation of practical artifacts. There will be an integrated project that weaves together many smaller projects to ultimately build and deploy a SeaPerch aquatic robot. This course encompasses systems thinking to link physics, structures, fluid dynamics, controls, and electrical power systems. This course promises to ignite students' passion for engineering and equip them with essential skills for their future academic pursuits.

* To maximize the hands-on experience of this academic course (9am – noon), it will be held off the campus of MIT, in the Kendall Square, Cambridge, MA area. Located next to the campus of MIT, Kendall Square is widely recognized as one of the world's leading hubs for technology, research and innovation.



Excursions

Academic excursions will allow students to apply their coursework to real-world professional settings and leverage the engineering and innovation resources of the Boston-Cambridge area.

Instructors

Kevin DiGenova - Sessions 1 + 2

Kevin is a Lecturer in the MIT Department of Mechanical Engineering, where he teaches Measurement and Instrumentation to undergraduates. The course focuses on developing good engineering judgment to execute a real-world project using the fundamentals that students have learned in their previous classes. Kevin brings over 17 years of experience developing complex, inter-disciplinary technologies. His work spans grid-scale flow batteries, robotics, fuel flexibility for gas turbines, organic Rankine cycles, process plant efficiency, and fuel-free compressed air energy storage. Kevin has led systems engineering efforts from initial architecture definition and requirements allocation through integration and verification testing of early commercial units.

Kevin has been closely involved in the development of compliance standards for energy storage systems. He is a member of the Standards Technical Panels for UL 9540, Standard for Energy Storage Systems and Equipment, and UL 1973, Batteries for Use in Stationary and Motive Auxiliary Power Applications. He earned both his bachelor's and master's degrees from the MIT Department of Mechanical Engineering.

Kyra Holmquest - Sessions 1 + 2

Kyra is an experienced Systems Engineer with a background in electrical engineering. She tackles the unique challenges of first-of-a-kind technology by bringing clarity to complex problems and translating scientific findings into practical, engineering solutions. Her systematic approach to early-stage decision making and risk mitigation based on the information at hand minimizes deployment risks, clears up miscommunications, and lowers overall system development cost. Her work spans grid-scale energy storage systems, underwater and UAV robotics, educational robotics, quad and octocopter drones, and high-power CW and pulsed laser systems. She has taught STEM education workshops and is passionate about mentoring interns and junior engineers. Kyra enjoys bringing her experience and systematic problem-solving to new companies, teams, and students to foster technological curiosity and critical thinking. She earned her Master of Engineering from the Cornell in System's Engineering and her Bachelor's of Science from Villanova in Electrical Engineering.

Cristina DiGenova - Sessions 1 + 2

Cristi is a versatile software engineering leader with 15+ years of experience across biotech, consulting, and education. She is skilled in designing and building scalable applications, mentoring engineers, and analyzing systems and processes. Cristi is enthusiastic about developing user-friendly solutions that support scientific research, automation, and hands-on STEM education, and in applying software and systems knowledge to designing educational platforms, content, and experiences.

Cristi earned a Master of Science at MIT in the Computer Science and Artificial Intelligence Laboratory (CSAIL), and a Bachelor of Science in Aerospace Engineering at MIT.

Dr. Andrew Bennett - Session 3

Andrew Bennett has more than 35 years of R&D experience developing novel robot systems for land, water and air use. In the 1990's he worked on a variety of autonomous underwater vehicles at the MIT AUV lab, including the Sea Squirt, Odyssey I, Odyssey II and the WHOI Autonomous Benthic Explorer. In the early 2000's he worked for Walt Disney Imagineering Research & Development where he helped create a full-sized walking quadruped robot technology demonstrator and several ride effects installed in Disney's Animal Kingdom's Dinosaur ride. He then went on to become Director of Research at iRobot Corporation where he was in charge of developing the PackBot mobile robot system, which is now in the Guinness Book of World Records; one of which is in the Smithsonian American History Museum. In 2011 Dr. Bennett became the Director of the SCOPE program at the Franklin W. Olin College of Engineering and taught Systems Engineering and Robotics. In 2019 he founded his own startup, Point Road Solutions, which is dedicated to creating engineering solutions for the ocean research community. Currently he is the Education Administrator for the MIT Sea Grant Program as well as a Senior Lecturer in the Department of Mechanical Engineering, where he teaches the senior Ocean Engineering capstone class. Dr. Bennett currently has three patents issued and six more pending.

Dr. Bennett earned his Bachelors of Science in Mechanical Engineering and PhD in Ocean Engineering at MIT, and his MS in Mechanical Engineering Design at Stanford.

Tuition Information:

Residential Students:

- **Includes:** all meals, lodging, excursions, academic course, weekend excursions
- **Excludes:** optional airport pickup and drop off service (available for an additional fee)
- **Price:** \$6,798

Commuter Students:

- **Includes:** lunch, academic course, excursions, programming from 9am to 5pm, Monday-Friday
- **Excludes:** lodging, breakfast, dinner, weekend excursions
 - Weekend excursions can be added on for \$125 per day
- **Price:** \$3,498

Supplements:

- **Application Fee:** Starting at \$99 (mandatory, non-refundable)
- **Engineering - A Project Based Introduction Course Supplement:** \$250 (mandatory)
- **Tuition Protection Plan:** Allows for cancellation for any reason up until the day of the program. Click [here](#) for more info.

[More info on Airport Transfer](#)

[More info on Unaccompanied Minor Service](#)

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Course Structure

There are nine 3-hour class sessions over the two-week course. During week one, students have class from 9am-12pm, Monday - Friday. During week two students have class from 9am-12pm Monday through Thursday. Wednesday afternoons are dedicated to additional academic time (excursions, speakers).



Typical Schedule

8AM	Breakfast	
9AM	Academic Course / Commuter Student Arrival	
12PM	Lunch	
1:30PM	Academic Excursions or Recreational Activity	
3:30PM	College Readiness Workshop or True You	
5PM- 6:30PM	Commuter Student Departure	
6PM	Dinner	
7PM	Clubs	
10:30PM	Night Checks	

Summer Springboard programs are not run by our campus partners (with the exception of Cal Poly, University of Washington Foster School of Business, and NYSID which are run in partnership with SSB). Universities and their affiliated departments and partners do not control and are not responsible or liable in any manner for any part of the Summer Springboard program.