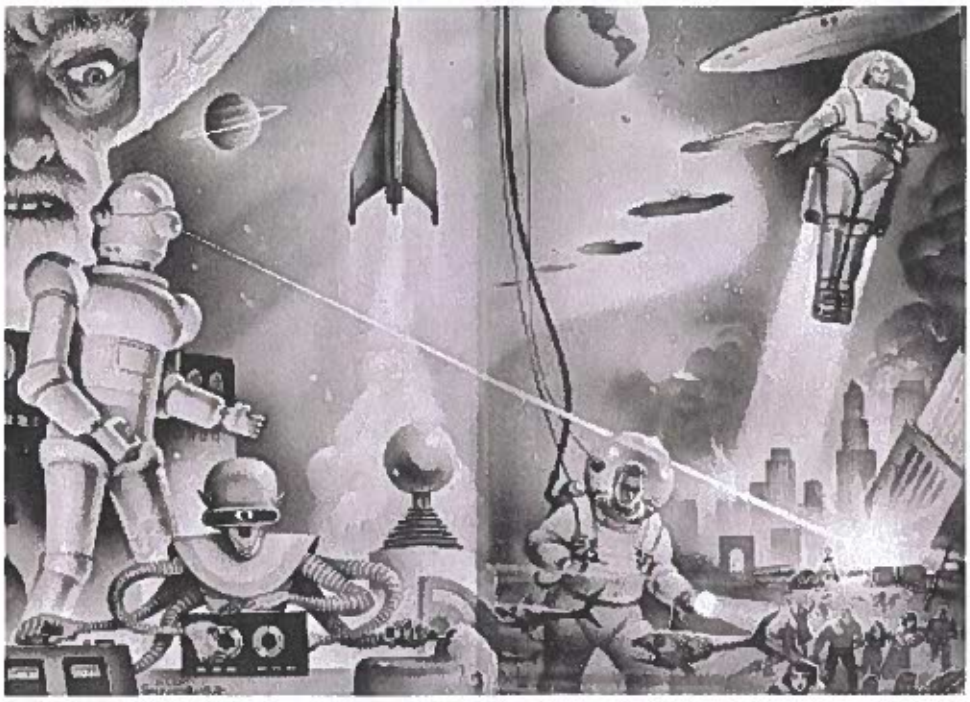


SCIENCE FICTION AND HISTORICAL CONTEXT

ROB MARTELLO

Are you curious about how science fiction has shaped the ideals, technological innovations, and cultural norms of our society? Are you interested in seeing how our ever-changing political, economic, and cultural trends have influenced the conventions of science fiction writing? Do you want to learn new ways of reading and thinking about science fiction, to better interpret its many meanings and messages? And most important of all, are you in the mood to read, watch, and listen to a century's worth of amazing stories? Join the fun this fall in Science Fiction and Historical Context, where we will not only explore the interaction between sci-fi and society, but we'll also redesign and improve the course for future generations of Oliners, to infinity and beyond.

Fall 2026
4 AHS Credits

We'll enjoy sci-fi short stories, TV series, comic books, and more

---

We'll explore sci-fi from the early 1900s to the present day

You get to choose which assignments you complete, from a menu that includes in-class presentations, reporting on additional readings, writing your own sci-fi, producing artwork or music, writing a report, or designing your own assignment

AHSE 2114

Science Fiction and Historical Context

Questions?

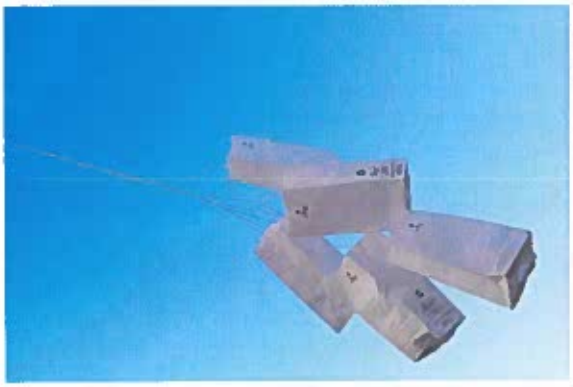
rmartello@olin.edu

Digital Photography: Seeing is Believing

AHSE 2135 Fall 2026

with Professor Helen Donis-Keller

Student work from previous Digital Photography courses below:



Do you have something to say?

This course provides an opportunity to develop a visual vocabulary and communicate your ideas using digital photography as the medium of choice.

- Personal creative work that has a project-based structure
- Fine art photography projects
- Nature, wildlife, macro, studio, landscape, urban, depending on your interest
- Use photography to promote activism projects
- Digital editing and printing of images
- Field trips to galleries and museums
- Self-defined final project

Prerequisites: None. Students that have zero experience with digital single-lens reflex (DSLR) cameras or photography in general are encouraged to enroll. Students with any level of photography experience are enthusiastically welcomed too.

Equipment: All camera/lighting equipment and printing materials are supplied

Credits: 4 AHSE 4:0:8

Questions? Helen.Donis-Keller@Olin.edu

AHSE 2170: *Teaching and Learning in Undergraduate Science & Engineering*

Fall 2026

Instructor: Yevgeniya (Zhenya) V. Zastavker
(yzastavker@olin.edu)

Photo by Michael Maloney

Have you ever thought about what it may mean to teach? Or to learn? Who is a teacher and who is a learner? What defines a mentor? Or a coach? Or an advisor? Or a consultant? And how do we step into these positionalities? How do we hold holistic learning spaces to those whose learning we support?

This course will examine select topics in teaching and learning in undergraduate science and engineering. The goal of the class is to help participants become effective tutors, teaching assistants, mentors, and future instructors in these fields through a deep ***theoretical examination*** *of and* ***practica*** *in undergraduate teaching and learning in STEM learning environments.* In a ***seminar format***, through ***engagement with literature and reflective writing activities***, participants will discuss research on best practices in pedagogy and curriculum design, cognition and learning, motivation, student classroom experiences, assessment, as well as issues pertinent to equity, diversity, and belonging. Students will gain experience in instructional design, pedagogy, and assessment, and will develop a teaching portfolio that can be used for graduate school and job applications.

AHSE 2150/ SCI

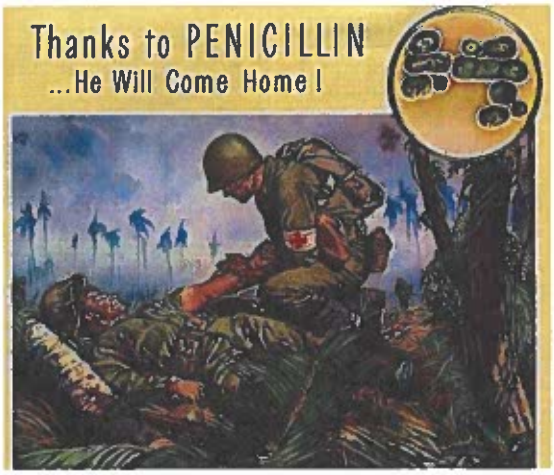
SIX MICROBES THAT CHANGED THE WORLD
WITH LABORATORY

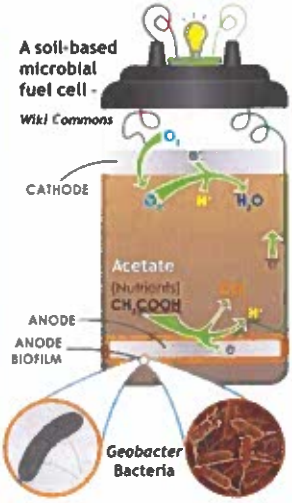
Jean Huang and Rob Martello
Fall 2026
(Eight credits: 4 SCI, 4 AHS)

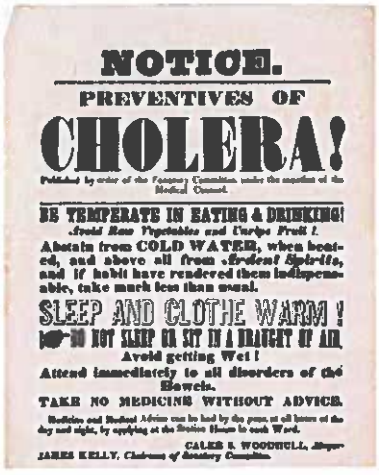
"It has long been an axiom of mine that the little things are infinitely the most important."

- Arthur Conan Doyle, "A Case of Identity" in *The Adventures of Sherlock Holmes*

Penicillium. Vibrio cholerae. Escherichia coli. Yeast. The Archaea. Microbes surround us and impact our lives, health, society, economy, and environment. Research with microbes, the smallest of all living creatures, has enabled discovery and understanding of the fundamental workings of life, opens up rich historical narratives of diseases and cures, and may provide sustainable solutions to problems we face from bioenergy to bioremediation. We will use six influential microbes as a window into a rich study of the interactions between science and societal context. This course connects biological concepts and historical knowledge through discussions, integrated assignments, presentations, and hands-on laboratory activities. Let's explore the thrill of biology and history, together!







Contact us!

Rob Martello (rmartello@olin.edu), Jean Huang (jhuang@olin.edu)

ENGR 3199 Special Topics: Maker Pedagogy: Curriculum & Space Design

Instructor: Daniela Faas

Credits: 2

Recommended Requisite: Experience with computer-aided design and digital fabrication.

This course focuses on the pedagogical and logistical framework required to design, launch, and manage effective makerspace workshops. We will explore how to translate technical skills (like 3D printing or woodworking) into structured learning experiences that cater to diverse skill levels. Developing a workshop is a unique challenge: you aren't just teaching a skill; you are orchestrating an environment where people feel safe enough to fail and creative enough to innovate. Students will learn to curate educational experiences that empower learners while simultaneously designing physical environments that promote safety, flow, and collaborative "messing about." We move from the *why* of making to the *where* and *how*.

ENGR 3252

Technology, Accessibility, and Design

Babson Professor Angela Randolph
and Olin Professor Paul Ruvolo

New for 2026: Focus on Entre-preneurship!

Technology is a double-edged sword. It can amplify and it can amputate. In TAD, we learn how to bring about a more accessible and inclusive world through two key threads.

- Learning about the social, historical, and political context of disability.
- Applying entrepreneurial methods to to uncover potential needs, ideate solutions, evaluate product market fit, and create low-fidelity and medium-fidelity prototypes

Key things to know for this year:

- We will have guest speakers with for each of these threads (disability and entrepreneurship).
- The course is cross-listed as a Babson course
- In contrast to past years, the projects will not come preformed from community partners but will arise out of your explorations of community needs and opportunities.

Highlights from past TADs

We used ethnographic methods to understand the experience of someone cooking who is blind.

We partnered with Carmen Papaglia (a non-visual artist) to create Loud Cane 2.0

We designed adaptive solutions for Needham elementary students

We took a field trip to the Carroll Center for the Blind's woodshop.

We worked with Keyona Aviles to design an app to foster better mental health for BIPOC folks.

We worked with Charlie Croteau to design an on-road / off-road power wheelchair.

Perkins SCHOOL FOR THE BLIND

We created accessible data visualizations for Perkins Howe Innovation Center, which were featured in TechCrunch and Forbes.

Scan to read an article about TAD!

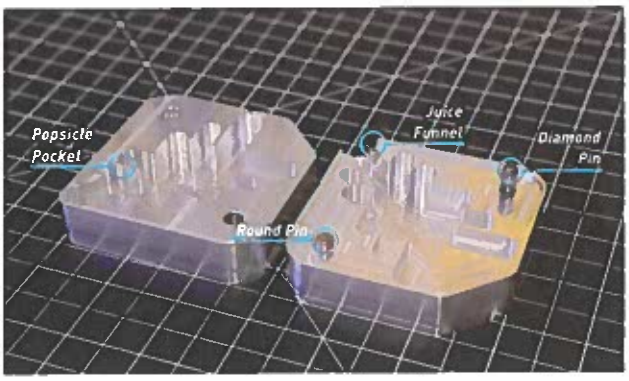
ENGR 3260

Design for Manufacturing

In the process of creating a new product, device or system, a "proof of principle" prototype is built to demonstrate both that such an object can be built and to test how well it works. At a practical level, in the process of creating this prototype, many sub-optimal design concessions are made in the choices of components, cost and functionality in order to meet prototyping time and budget constraints. Upon the completion and successful testing of a prototype, the next phase in the design stream required to bring the product, device or system to a final user or market, is to re-design the prototype such that it can be manufactured at both an acceptably low price point and at an acceptably high enough level of quality to give enduring value to the final end user.

Design for Manufacturing will build the specialized design skills needed to professionally redesign a prototype in order to meet target price, reliability and functionality goals, whether the final market requires a single unit per year (i.e. space systems, like satellites) or fifty thousand units a week (i.e. consumer products). This course will be heavily team and project based and will involve the re-design for manufacture of several products, devices and services at the discretion of the instructor. The overall course projects will incorporate a significant mechanical, electronic and software components (but perhaps not all three in any one project) and will be drawn widely from the consumer, industrial, and sustainable market sectors. Course will invite guest lecturers to support the particular projects offered in a given semester.

Course Instructor:
Daniela Faas (daniela.faas@olin.edu).
Email with any questions!



ENGR 3291

DESIGN WITH EMERGING TECH: GEN AI

01.

MAKE WITH AI

Design and build with AI: develop your own workflows, try out different kinds of tools, develop projects

02.

UNDERSTAND ETHICAL CONUMDRUMS

Learn about the ethical challenges of the tools and how to manage them

03.

DEFINE YOUR ETHICAL STANCE

Examine your approach to using AI, ethically

04.

DISCUSS

Break through hype, learn how your peers feel, delve into sociotechnical perspectives

05.

KEEP UP WITH CHANGES

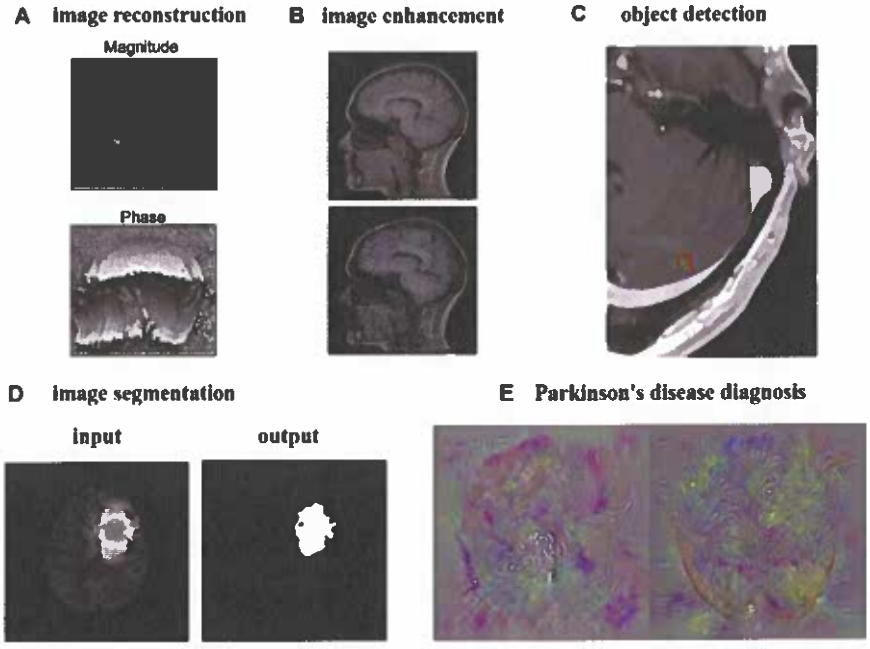
Learn about trends and happenings with these rapidly changing tools

You can take this class as either a design depth or AHSE. Check with Professor Lis Sylvan to learn more: esylvan @olin.edu

ENGR3499

Biomedical Image Processing
(offered as a designated alternative to the ECE requirement of Digital Signal Processing)
Prerequisite: ESA:Signals

Biomedical Image Processing builds on the knowledge of signals and signal processing and applies it to medical images. We will start by learning basic concepts of image processing, image reconstruction from incomplete data and image analysis to obtain meaningful information from imaging data. The acquisition and interpretation of medical images present unique challenges as they require us to understand **how different wavelengths of light interact with the human body, how imaging technologies often used in medicine work (MRI, CT, Ultrasound, Microscopy, spectral imaging, etc.) and how to ensure that the results of our processing and analysis are relevant in preclinical and clinical contexts.** We will develop an understanding of the various medical imaging technologies. We will study specific image processing topics and apply them to medical images such as sampling, linear transformation, geometric transformation, convolution, change detection, edge detection, quantization, filtering, image segmentation, image reconstruction, classification, feature extraction. We will also study the broader impact of images in clinical decision making and where there is possibility of biases being introduced into the entire biomedical imaging process – from acquisition to interpretation.



[Image credit: Gao et al 2022 "Application of medical imaging methods and artificial intelligence in tissue engineering and organ-on-a-chip]

Contact: Chhavi Goenka (cgoenka@olin.edu)

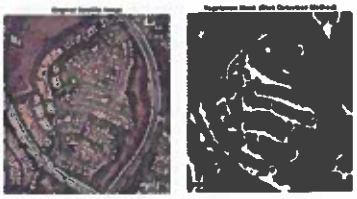
ENGR3499

Image processing, reconstruction and analysis
(offered as a designated alternative to the ECE requirement of Digital Signal Processing)
Prerequisite: ESA:Signals

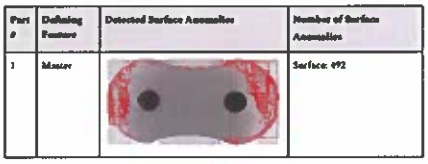
Imaging, imaging algorithms and imaging systems are being used every day to analyze and interact with the world around us, from facial recognition to medical data collection, from search & rescue to surveillance, from autonomous vehicles to assistive devices. In this course, we will learn about the basic concepts of image processing, image reconstruction from incomplete data and image analysis to obtain meaningful information from imaging data. We will also study how and where there is possibility of biases being introduced into the entire imaging process – from acquisition to interpretation.
The specific topics (as they apply to imaging) that we will cover include but are not limited to sampling, linear transformation, geometric transformation, convolution, change detection, edge detection, quantization, filtering, compression, color spaces, image segmentation, image reconstruction, classification, feature extraction.

Examples from last year's projects that used various techniques in image processing:

Scene reconstruction

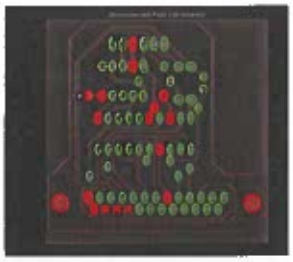


Finding green spaces in urban areas



Fault analysis in 3D printed objects

Locating wildlife



Detecting errors on a PCB

Contact: Chhavi Goenka (cgoenka@olin.edu)

FAILURE!

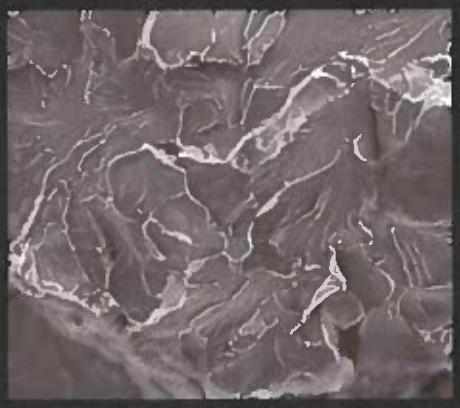
Failure Analysis & Prevention

ENGR3820/SCI3420

Jon Stolk

Plan and implement hands-on investigations of failed components and products.

Learn theory on failure modes and mechanisms. Develop your analytical and design skills.



Critically examine contextual factors of failure, like people, processes, policies, and standards.

Understand systemic failures by exploring historical and present-day failure case studies.

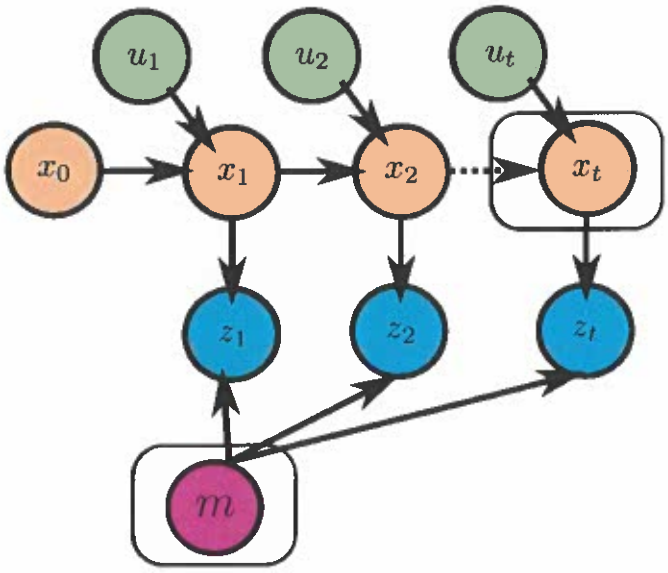


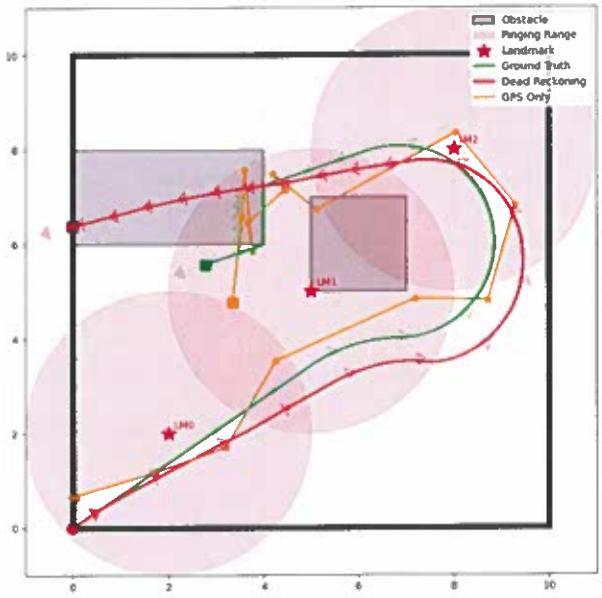
Special Topic: Probabilistic Robotics

ENGR3999 (2 credits) / MTH2188 (2 credits)

Elective E:Robo; Prob-Stat Credits; ECE/E:C Elective
Required Prerequisite: Software Design
Recommended Pre/CoRequisites: FunRobo, CompRobo, or Discrete

What is robot intelligence?
How do robots make decisions about where to go, what to do, and how to do it?





In this course, you will:

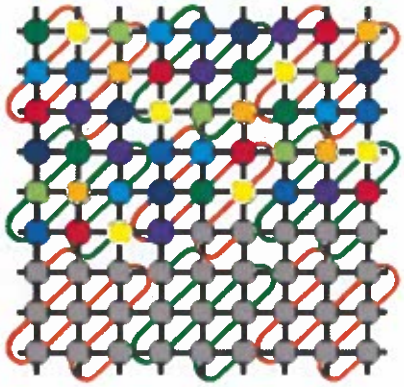
- Learn graduate-level content on the mathematical and probabilistic underpinnings of modern robotic algorithms
- Dive into three aspects of a robot "brain" --
  - **Perception**: Bayesian inference, noise modelling, sensor data
  - **Prediction**: state estimation, localization, Kalman Filtering, SLAM
  - **Planning:** informative path planning, reinforcement learning
- Practice writing robotic software and math formalisms
- Create your own robotic simulation environment!

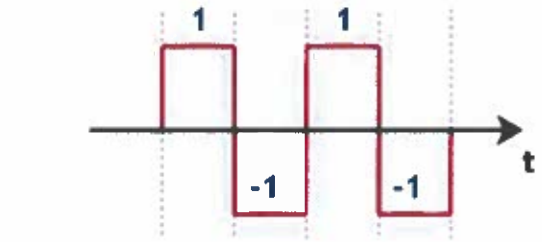
Spring 2026 Course Website: probrobo2026.github.io ——>

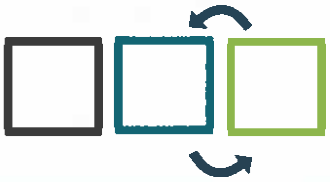
MTH 2110: Discrete Mathematics
Combinatorics and Graph Theory

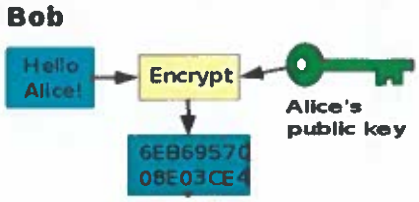
Questions to sarah.adams@olin.edu

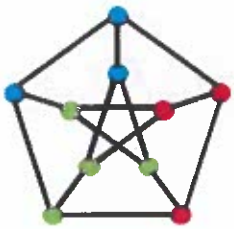
These graphics from prior projects give a glimpse of what Discrete is all about!

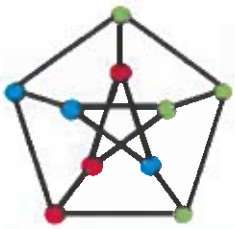












Student demand will determine if we offer 1 or 2 sections of Discrete next fall!

Discrete Math is required for E:C and ECE majors, and it is an approved math elective for E:Robo. Other majors are also welcome, and we do often have a few students from other majors in each section.

This course addresses the following Olin Learning Outcomes, roughly in decreasing order:

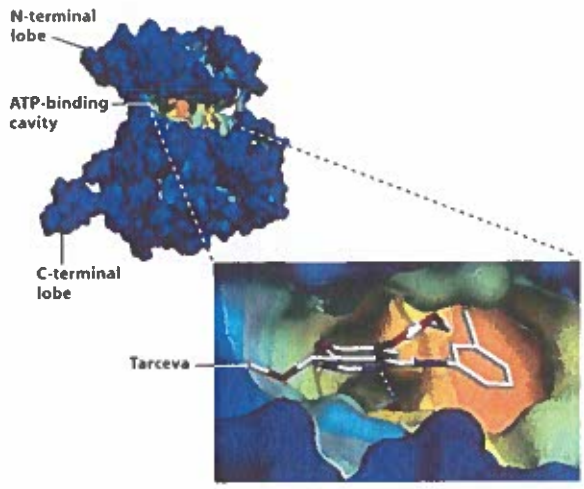
- Develop and Apply Knowledge, Skills, Approaches and Methods
- Collaborate Successfully
- Communicate Effectively
- Develop and Apply Creativity
- Design and Implement Processes to Achieve Desired Outcomes

In service of these learning outcomes, we will count a lot of things that are hard to count, use graphs to model everything from city roads to social networks to states of games, and apply recursion and induction to a variety of situations. Special topics might include error-control codes, cryptosystems, combinatorial designs, and/or open problems in discrete mathematics.

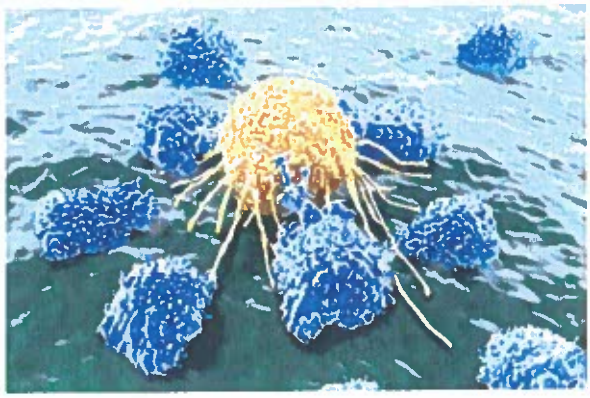
You'll have a wide variety of deliverables including pre-class work (reading and warm-up problems before each class), weekly group assignments, some individual assignments, and some group projects, including a graph theory project and an open-ended final project. You will get timely feedback on your work with a focus on revisiting concepts to gain creative mastery of the material.

SCI1240: Designing Better Drugs

This course addresses the engineering grand challenge of Engineering Better Medicines. In this class, students will learn to apply concepts and laboratory skills that are currently used in biological research to solve problems in health and disease and drug discovery and development. Students will also develop skills in technical writing and oral communication, and they will gain experience with the basics of designing, conducting and evaluating laboratory experiments. Students will demonstrate an understanding of the larger societal context in which biological concepts, tools and research play a role in everyday life and medicine, and how societal context shapes the advancement of research in biology and medicine.



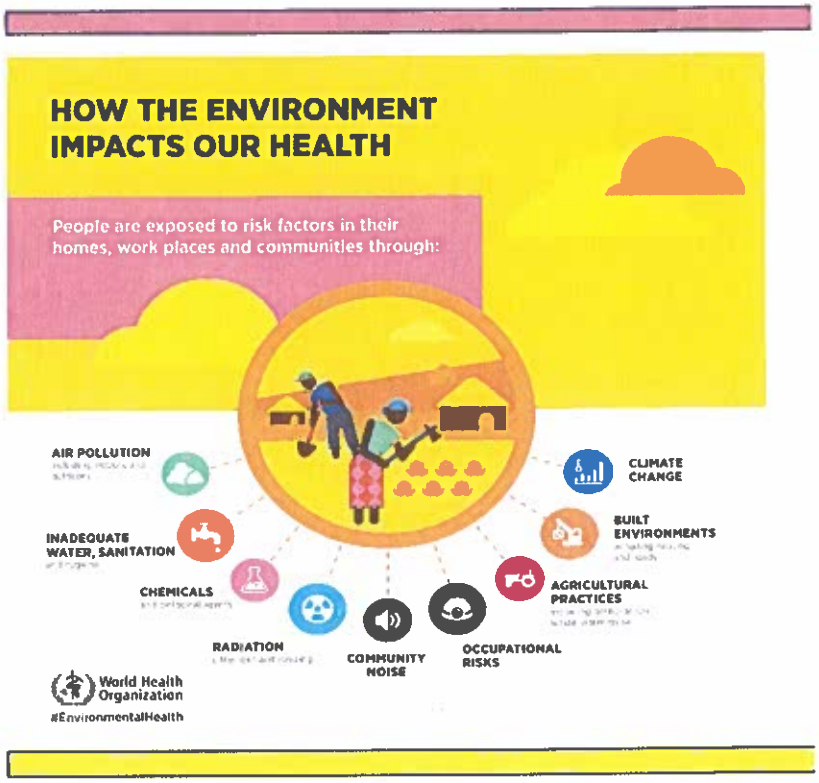
Tarceva fits in target's groove and blocks its activity



Immunotherapy: T cell attacking cancer cells

This class fulfills the Olin foundation Biology requirement.
Prerequisites: none
Instructor: Joanne Pratt
Lab Instructor: Michael Fannon

SCI1299: Environment & Health



This course will explore the intricate relationship between the environment and human health. Through discussions, activities, readings, and laboratory exercises you will investigate how various environmental factors, such as chemicals in our food, products and spaces; stress; UV exposure; nutrition; air and water quality; and climate change impact human health at the cellular, organismal, and global level both in the present and future. You will also explore potential solutions and adaptations.

This course addresses the Sustainable Development Goal of "Good health and well-being" (among others).

This class fulfills the Olin foundation Biology requirement .
Prerequisites: none
Instructor: Joanne Pratt
Lab Instructor: Michael Fannon

MM&E

Metals, Mining, & the Environment

SCI 1420 Jon Stolk

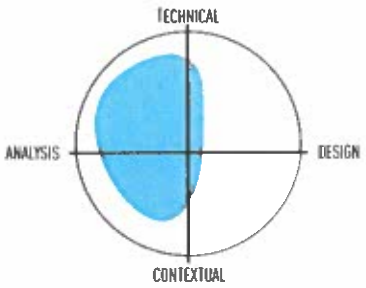
Images: earth.com (left), wikipedia (middle), The Guardian (right)

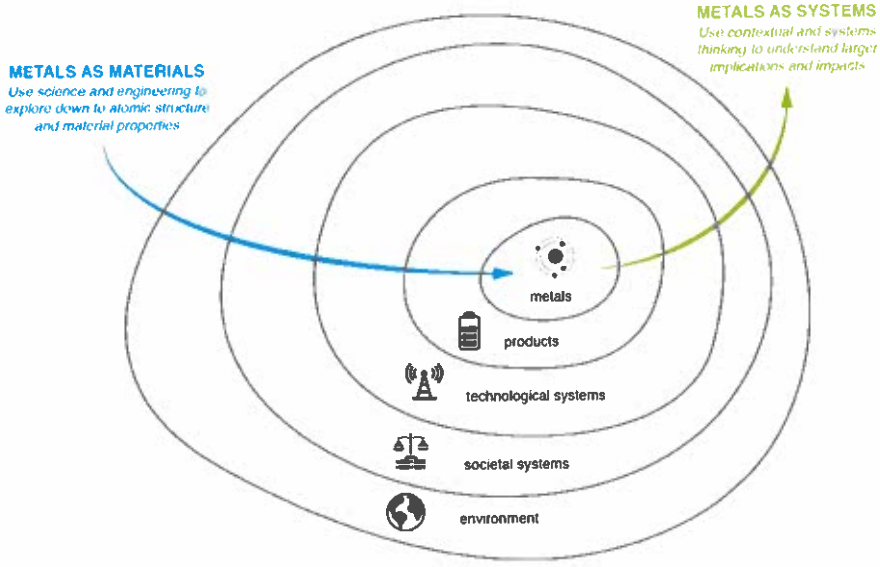
TRASH: E-WASTE & END-OF-LIFE

ALLOY PROCESSING

TREASURE: MINING & CIRCULAR ECONOMIES

It's project-based.
It's hands-on, in the lab.
It's systems thinking oriented.
It's sustainability-focused.





MCCI

SCI 1440
Jon Stolk

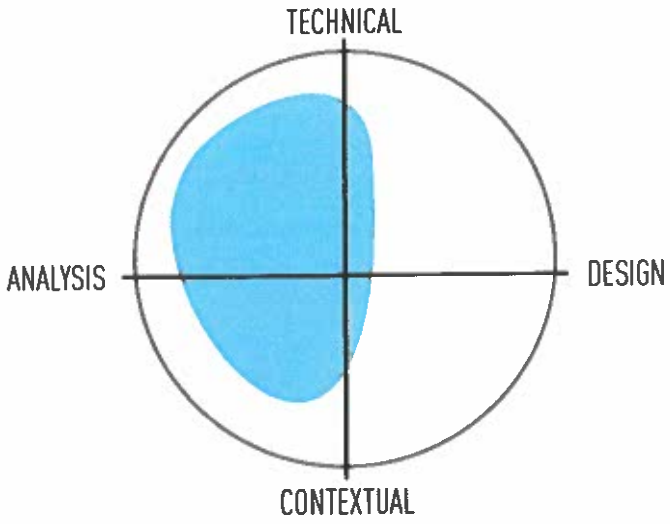
Materials Creation, Consumption, & Impact

SUPS: TRASHING OUR PLANET

ALLOYS: PATHWAYS TO PRODUCTS

DESIGN + MATERIALS + CULTURE/IDENTITY

It's project-based.
It's hands-on, in the lab.
It's systems thinking oriented.
It's sustainability-focused.



DESIGN JUSTICE STUDIO

Formerly called Affordable Design and Entrepreneurship (ADE)

MISSION

Inspire and prepare students to work with people in communities to address social and environmental justice challenges.

ENGR 3290 - Olin College – **DESIGN DEPTH**
ENGR 4290 - Olin College – **CAPSTONE**
EPS 4515 - Babson College

Offered: Fall, Spring
Prerequisites: ENGR 2250 for Olin Students; Junior or Senior standing

COURSE DESCRIPTION

This course engages students in community-based, participatory design and action. Teams partner with communities and organizations to achieve positive social and environmental impact with a strong justice framing, working for change in areas like air quality, community development, food processing, global health, and just energy over several semesters.

Guided by an experienced faculty advisor, teams make change through design for impact, social entrepreneurship, community organizing, participatory research, political advocacy and other practices. Teams work using theories of change, assumption testing, power analysis, dissemination of innovation, and ethical norms. Students regularly engage primary parties in inclusive processes, in person and virtually, to observe, strategize, plan, co-design, prototype, test, and implement approaches supported by a significant project budget. There are often opportunities to travel locally, nationally, or internationally to work with partners. Students are exposed to mindsets and dispositions for working with integrity and responsibility in their primary-party contexts through guided exercises, case studies, guest speakers, readings, and reflections. Students learn and apply changemaking practices through project work, and gain essential experience building relationships across difference and developing their own self- and cultural awareness.

LEARNING OBJECTIVES

1. Identify principles and examples of practices that are primary-party-centric, participatory, community-based, and accountable to communities and collaborators.
2. Engage across differences and power imbalances to build trust and productive working relationships with primary parties and collaborators.
3. Reflect on personal and professional obligations and identity development in ways that connect course activities with longer-term life and career goals.
4. Articulate and iterate a theory of change for working for justice in a specific context.
5. Test assumptions that underlie a theory of change in order to help determine how to advance and de-risk a project.
6. Engage in design and strategy development to create or evolve a plan to ensure the sustainability of a project.
7. Take responsibility for and apply a diverse set of practices that foster team health.

DESIGN JUSTICE STUDIO

DJS TRACKS

There are 5 tracks in DJS with a team working in each area. All teams share broader change-making practices, including **theory of change, assumption testing, power analysis, dissemination of innovation methods, and ethical norms**. And each team has its own particular practices for making change, which are typically a combination of **design for impact, social venturing, community organizing, public policy advocacy, and participatory research**.

Air Quality — Massachusetts

Reducing the burden of air pollution in near-source communities by building awareness and capacity for agency.

Community Development - Massachusetts

Working with local educators to create equitable access to hands-on learning opportunities for 11-18 year-olds that build self-confidence, invite creative self-expression, and inspire community action, disrupting structural exclusion.

Food Processing — Ghana

Creating mini post-harvest processing machines accessible to women to reduce gender inequality, increase local food security, reduce burden, and grow small businesses supporting communities.

Global Health — Americas

Increasing early access to hearing screening devices to enhance immediate well-being of children and improve their overall life outcomes.

Just Energy — Massachusetts

Olin College of Engineering

SCOPE

WHAT IS SCOPE?

- SCOPE is the **SENIOR CAPSTONE PROJECT IN ENGINEERING** at Olin.
- Olin's first capstone, it is the longest running and this is the 21st year we've run this program.
- From the beginning, SCOPE was one of Olin's earliest experiments in empowering students to create real impact within the engineering profession. Over time, this approach—where students engage in externally partnered projects and learn what it means to make a difference through their work—has been formalized as impact-centered education.

Over the course of a full academic year, seniors work in multi-disciplinary teams to provide innovative solutions to a company's real-world problems.

www.olin.edu/academics-capstone-programs/scope

Watch last year's SCOPE Summit presentations

WHAT WILL I DO IN SCOPE?

- Successfully execute a client-based project
- Meet weekly with a liaison from the sponsor
- Attend workshops about teaming, project planning, communication and more.
- Reflect on and further develop a professional identity
- Create and maintain team health on a team of 4-6 students
- Work with experienced faculty advisors and subject matter experts

WHAT TYPES OF PROJECTS ARE IN SCOPE?

SCOPE projects are sponsored by companies and other institutions that bring us problems that require engineering solutions. Examples include medical equipment design, automated farm equipment, software development for mobile and social applications, and electronic communication systems.

See current and past SCOPE projects:

HERE

2026-27 CONFIRMED SPONSORS

Amazon Robotics
Boston Scientific
BU WISE
New Balance
Pfizer

WHO CAN I ASK TO LEARN MORE?

- shersey@olin.edu — Scott Hersey, SCOPE Academic Co-Director
- jtownsend@olin.edu — Jessica Townsend, SCOPE Academic Co-Director
- lpalmer@olin.edu — Lauren Palmer, Associate Director of Partnership Development

*** ROBOTS * CLOTHING * ARTIFICIAL INTELLIGENCE ***

Which of these courses might interest you? Caitrin Lynch (anthropology prof at Olin) wants to know!

Looking for a course that integrates societal and technical perspectives? I've got three ideas. What piques your interest?

IDEA #1. Robots and Society: This course starts back in time, comes up to the present, and looks ahead to the future (including visions of the future imagined by humanoid robotics companies and students in the class). The course is anchored in non-technical perspectives on robotics and society, such as work from social scientists, humanities scholars, and designers/artists. Includes sci fi and other media responses to the idea and reality of robots, technological developments, labor topics, and questions of what it means to be human among robots—and student research/projects on topics of their choice. It will include touchpoints in technical robotics research, development, and businesses, and it may include contact with people in the Boston-area robotics ecosystem.

IDEA #2. Clothing and Society: Focusing on historical and current topics related to clothing, this course is organized around the supply chain and the people working within it (raising sheep and making synthetic petroleum-based fibers; making fabric and sewing clothing; recycling and repurposing old textiles and clothing). Technology topics that are *threaded* throughout the course are always *woven* into societal topics: How does a plastic bottle become a recycled-plastic-bottle-shirt? What are the labor and environmental impacts of cotton production today? What is permanent-press fabric and how does the advent and demand for no-iron clothing connect to cultural changes and expectations about women's labor? Fast fashion may be cheap for me, but what are the social and environmental costs? The course may include contact with people in the local textiles/garments ecosystem.

IDEA #3. AI and Society: This course asks questions about what Artificial Intelligence might mean for our lives and our world. The rise of large language models has increased the urgency of ethical questions surrounding machine learning. Drawing on academic texts as well as news articles and other forms of media, this course contextualizes AI within cultural conversations, ethics, and power relationships in U.S. society. Through active discussion, reading, writing, research, and project work, we will explore AI as it relates to topics such as surveillance, labor, bias, trust, regulation, education, environmental sustainability, and more. (Students who took the AHS Foundation version of this class with Lynn Stein in fall 2024 are not eligible to enroll, nor are students who took an earlier version of this class with Caitrin Lynch, Paul Ruvolo, and Victoria Dean in fall 2023.)

BTW, you may wonder: ***Who is Caitrin Lynch?*** I wonder that a lot, myself. I am a faculty member at Olin. My disciplinary home is anthropology, but I spend most of my time outside that home, creating and enjoying bridges to other homes. In the academic years '24-25 and '25-26, I've been working as a Visiting Fellow on the Robotics, Ethics, and Society team at the Robotics and AI Institute (RAI), so I haven't been at Olin much. You can see more about me at https://www.caitrinlynch.org/ .

If you would like to hear more about the courses, I will answer questions (or make up things to discuss, if nobody has questions). Friday, March 5, 2-2:30 pm. Go to this QR code to find:

1. A Link to the Zoom address for Friday's info session.
2. A link to this flyer so you don't have to take a hard copy.
3. A link to a document to log thoughts, questions, and suggestions for these courses. I want to build a great course, with student input!

Special Topic: Ocean Modeling

ENGR Credits? 2 or 4? Help us decide!

General Elective

We live on an ocean planet, let's learn about it! What physical systems dictate the character of the ocean? How do we know?

We are actively designing this course! What would you be interested in?

- Technical writing and paper reading...
- A tour through the ocean sciences and connections to engineering...
- An applied signal processing and data science course...
- An applied numerical simulation course...
- A seminar-style course...

Interested? Contact vpreston@olin.edu or jshen@olin.edu to discuss, and stay tuned for an interest and feedback survey!

SLC

EMBEDDED SOFTWARE COURSE

WE ARE HIRING!

Why this course?

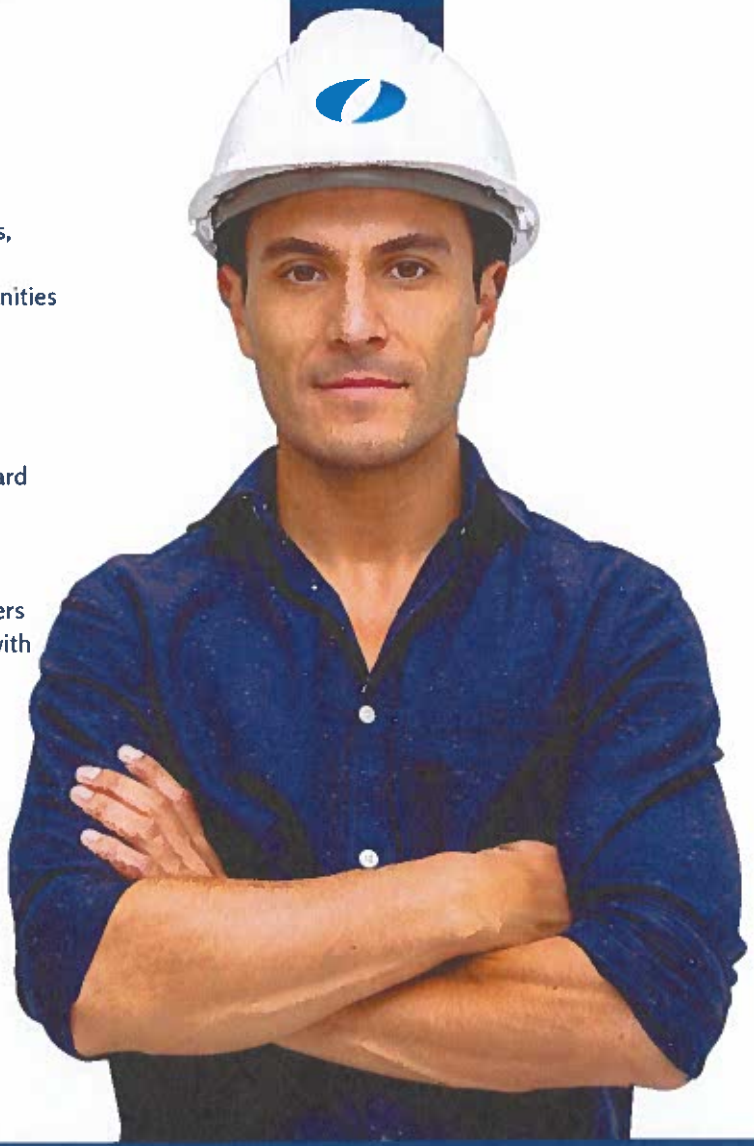
- Curious about exploring how embedded devices are programmed at the lowest level?
- Looking to break into growing embedded software roles, prepared for technical interviews?
- Ready for a portfolio-level open-ended project opportunities to show recruiters?

Course Content

- Bare-metal and RTOS programming on industry-standard ARM Cortex-M Chip series (using **STM32 Discovery kit**)
- Serial communication protocols: UART, SPI, I2C
- Practice with embedded-debugging tools: gdb + JTAG
- Interfacing with peripherals: ADC, DMA, hardware timers
- Conceptual RTOS fundamentals and implementation with FreeRTOS

Pedagogy

- Module-based curriculum with mini-projects at the end as final deliverables
- In-class hands-on labs to bridge theory and implementation
- Asynchronous textbook readings and videos
- In-class lectures



Interested in learning more? Contact Rishit, Eddy, or Ashley for more details:
rbansal@olin.edu, epan2@olin.edu, ayang2@olin.edu

OFYI FA26 CA Application

BE AN OFYI CA

Wednesdays, FA26 1-240???

- **Help design a course**
- **Get teaching experience**
- **Meet the FY class**
- **Research??!!**
- **FUN??????!!!!**

ckraemer@olin.edu

or bug any other past CAs

Spring 2027

Coming soon to a classroom near you!
Spring 2027

Evolution: Birds Do It! Spring 2027

***with* Professor Donis-Keller (HDK)**

As shocking as this may seem did you know that birds evolved from dinosaurs? The fossil record provides this fascinating example. Who knew the evolution and development of feathers could be so complicated and amazing? The Theory of Evolution by Means of Natural Selection developed by Charles Darwin and Alfred Russel Wallace is probably the single most important scientific discovery and as such it ties together all of biology. We will study the work of these two naturalists and the context in which they lived and worked. Darwin's dangerous notion of female mate choice will be looked at in depth from Darwin's writings to recent experimental studies. Did the notion of evolution of beauty for its sake alone provide a separate path from natural selection in birds? Beginning with the evidence for evolution from the distant past to most recent findings, we will consider the origin of species, systematics, phylogenetics, comparative biology, genome evolution, as well as the evolution of diseases. Anyone interested in how their own genome got to where it is today would find this an interesting course as would people who wonder about how birds developed and their relationship to other organisms. Darwin's research on the Galapagos Islands was the foundation of his theory, and I will share the opportunity I had to literally follow in his footsteps on the islands and learn of current studies and conservation efforts there. This course would be particularly useful to anyone interested in E:Bio, graduate work in biology, medical school, or just to deepen your biological knowledge and experience the joy of science. Our readings and seminars by experts in the field will be enriched by field trips to visit study collections *and we will learn how engineering is advancing the study of birds today.* A final student choice project on evolution, e.g. of a present-day organism will provide a platform for critical thinking and analysis to be shared in poster form or another student choice presentation type.

SCI2000 level, 4 SCI credits, Prerequisite: Any foundation biology course