

# Fall 2017 Supplement and Course Offerings List

(vol16, no1.1, August 23, 2017)

## Information Contained In this Document

- 1) Schedule of Deadlines
- 2) Cross-Registration Deadlines and Instructions
- 3) Course Tips & Curriculum Info and Catalog Supplement (courses new to catalog for 2017-18 or special topics)
- 4) Course Offerings List (you can also search this here: [Course Search](#))
- 5) Course Offerings Grid
- 6) Tentative Spring 2018 Courses

For General Registration Information and FAQs (formerly contained in the registration booklets), please visit our [web page](#).

## Schedule of Deadlines for Add; Drop and Pass/No Credit ; Withdraw

Session	Add	Drop and Pass/No Credit	Withdraw
Full Semester (Aug 31 – Dec 8)	September 14, 2017	November 3, 2017	December 8, 2017
Session I (Aug 31 – Oct 16)	September 7, 2017	October 2, 2017	October 16, 2017
Session II (Oct 19 – Dec 8)	November 2, 2017	November 17, 2017	December 8, 2017

## Cross-Registration Deadlines To find cross-registration instructions, click [here](#).

	Babson	Brandeis	Wellesley
<b>Cross-registration open period</b>	4/10/2017 – 9/6/2017 at 4:30 p.m.	8/22/2017 – 9/13/2017	4/24/2017 – 9/15/2017 at 11 p.m.
<b>First day of classes</b>	8/30/2017	8/30/2017	9/5/2017
<b>Drop deadline</b>	9/6/2017 at 4:30 p.m.	10/17/2017	9/29/2017 at 11 p.m.

Questions? Contact the Registrar's Office at Olin College, Campus Center, Room 320; [registrar@olin.edu](mailto:registrar@olin.edu) 781-292-2340

## Course Tips & Curriculum Info

### ADE/SCOPE Info Session

Want to know more about the 2 engineering capstone options? Trying to figure out which one is for you? Want to know what being in capstone is like? Join Benjamin Linder and Alisha Sarang-Sieminski, the directors of ADE and SCOPE, respectively, on Wednesday, April 5<sup>th</sup> from 12:30-1:30pm in the Crescent room. Open to all students.

### Design Depths – We have many!

In the fall, there are 4 offerings for design depths. They are: 1) Affordable Design and Entrepreneurship, 2) Integrated Product Design, 3) User Experience Design, 4) Biomedical Device Design. Also, keep in mind that in the spring, there will be at least 3, and possibly 4 offerings as well. You can find our tentative listing of spring in this booklet.

### Bio, we have Bio – Read on:

In the fall we have 2 sections of foundational biology options and one advanced biology section. We also plan for two in the spring semester as well. Below is an updated policy about our foundational biology requirement. Please read through for clarity.

If you took an AP biology class in High School and received a score of “4” or “5”, you are automatically eligible to place into an intermediate or advanced biology class. Emerging Technologies in Cancer Research is an intermediate biology class that is being offered in the Fall that would satisfy the biology foundation requirement for eligible students.

Students who took an AP biology class in High School and received a score of “3”, or IB HL and received a comparable score have the option to take an oral assessment to determine if you are eligible to place into an advanced biology class.

If you meet the criteria to take the exam, please contact biology faculty Helen Donis Keller ([Helen.Donis-Keller@olin.edu](mailto:Helen.Donis-Keller@olin.edu)) and Joanne Pratt ([Joanne.Pratt@olin.edu](mailto:Joanne.Pratt@olin.edu)) to set up an appointment for the exam.

### Foundational Materials Science & Chemistry – What are my choices?

We have 3 options for this in the fall and plan on at least 1, possibly 2 in the spring. This fall, you have a choice of Materials Science and Solid State Chemistry with a flavor or a) Deliberately Relevant for Engineers, or b) Environmental and Societal Impacts. If neither of these peak your interest, how about an Environmental spin? The course listed as “Environmental Analysis and Engineering” can count as your mat sci/chem requirement if you elect it as SCI2399. Still have questions? Review the catalog of descriptions in this supplement or the course catalog.

### “Probability and Statistics” – What are my choices?

Once again, we are diversifying our probability and statistics offerings. This fall semester, we have two choices and both are new. They are listed below and both have descriptions further in this booklet.

- 1) Sam Michalka’s ENGR3699A/MTH2188A Special Topics in Bioengineering: Neurotechnology, Brains and Machines.
- 2) Theresa Wasylenko’s 2 credit, Session I offering of SCI2299: Special Topics in Biological Sciences: *Quantitative Biology*

# Catalog Supplement

Degree requirements are outlined in the [Course Catalog](#)

Course descriptions can also be found in the catalog and in the portal course search. New, highlighted, and Special Topics course descriptions are listed below.

## Topics Courses

### **AHSE1199-01: Arts, Humanities, Social Science Foundation Topic**

#### ***From Dirt to Shirt***

Instructor: Lynch

Credits: 4 AHS

*Registration note: AHS FOUNDATION; restricted to first year students*

This course is an intensive study of the global supply chain for clothing. It examines social, economic, political, environmental, and technological issues all along the supply chain. This includes historical and contemporary production of components such as cotton, wool, and Kevlar; textile processing and garment production; and the after-life of the clothes we dispose of. The class will include readings, discussions, and engagement with multimedia sources; first-person contact with local people involved in the industry; and student projects on a chosen node of the supply chain.

### **ENGR3299: Special Topics in Design Engineering: Return Design/Shop Practicum**

#### ***Return Design/Shop Practicum***

Instructor: Sauder

Credits: 4 ENGR

Hours: 4-0-8

*Prerequisite: ENGR2250, User-Oriented Collaborative Design*

*Registration note: registration by permission only – see Tim Sauder; may count for Design Depth*

Return Design Studio/Shop Practicum is a class in which students will join projects running within Return Design, Tim Ferguson Sauder's lab which produces work in partnership with pro-social and non-profit projects and clients. Students will work through a creative process, both individually and in groups, which will:

- Develop their ability to effectively communicate about their designs with other designers in the studio/shop, as well as with external clients and partners.
- Build a culture in which student designers learn to both give constructive criticism of work as well as receive and respond to such criticism in a way that improves their final deliverables.
- Utilize the fundamental principles of visual design to leverage aesthetics in a way that effectively conveys a concept to an intended audience.
- Constantly consider and respond to ethical considerations implicit in the projects taking place within the studio/shop.

### **ENGR3699: Special Topics in Bioengineering**

#### ***Biomedical Device Design***

Instructor: Sarang-Sieminski

Credits: 4 ENGR

Hours: 4-0-8

*Prerequisite: ENGR2250, User-Oriented Collaborative Design*

*Registration note: may count for Design Depth*

In this course, we will briefly consider the range of artifacts that are considered (bio)medical devices, how they are used, and who they are used for. We will primarily focus on the unique design constraints of and methods used in developing medical devices. We will touch on topics such as regulation and approval of devices, writing user requirements, writing product requirements, manufacturing practices, bioethics, and the body's response to implanted materials and surgical interventions. The first half of the semester will be spent developing skills through a case study model. In the second half of the semester, students will complete a major design project, with an external partner, that is focused at a particular stage of product development.

**ENGR2999-01 OR SCI2399-01: Special Topics in Environmental Engineering and Science**  
***Environmental Analysis & Engineering***

Instructors: Hersey, Wood

Credits: 4 SCI OR 4 ENGR; **course is cross-listed – see registration note below.**

Hours: 3-3-6 (with some "lab" hours being in the chem lab and some in studio/project work)

*Prerequisites: Some chemistry background is recommended; high school chemistry should be sufficient. If you're generally familiar with acid/base chemistry, ionization, and other fundamental chemistry concepts, you should be suitably prepared. Some coding experience (in any language) is also recommended, as one project requires coding (shared among a team).*

**Registration notes:** *students must choose ENGR2999 for ENGR credit or SCI2399 for SCI credit at time of registration. If SCI2399 chosen, will count as Mat Sci/Chem foundation.*

How do we measure what's happening in our environment, what do we do with that information, and why do we care? This hands-on, project-based course will introduce approaches that environmental engineers use to analyze complex environmental systems and design solutions to mitigate pollution. We will spend the semester making deep-dives into air quality and water quality, which are at the heart of the two leading causes of premature death in the world: chronic exposure to air pollution and lack of access to clean water. The class focuses on building hands-on skills with data research, data analysis, field sampling techniques and lab analysis skills through integrated projects like analyzing pollutant concentrations along the Charles River, and the course will incorporate elements of design through projects like assessing solutions to air pollution in major US cities. Throughout the course we will study pollution in its broader social, political, and economic context, considering the complex motivations for pollution mitigation and the broader implications of water and air treatment processes.

Activities and assignments will include field trips, field work on the Charles River, two major team projects, writing assignments to build toward final deliverables, a small number of problem sets, and a significant amount of in-class time, a lot of which is spent on project work.

**ENGR3699A /MTH2188A: Special Topics in Bioengineering AND Designated Alternative in Mathematics**  
***Neurotechnology, Brains and Machines***

Instructor: Michalka

Credits: 2 ENGR, 2 MTH

Hours: 4-0-8

*Registration note: This course may be used to satisfy the Probability and Statistics requirement.*

Neurotechnology falls in the intersection of engineering, data science, and neuroscience. This area involves work in how humans can use machines to understand how we think and how to make machines that can think. Advances in neurotechnology will likely lead to new treatments for brain disorders, repair and augmentation of our sensory and motor systems, and shifts in computation strategies. In this course, students will learn about cutting-edge technologies used to understand and emulate the brain, develop statistical data analysis skills to conduct and understand neurotechnology research, and discuss the cultural and ethical implications of these advances. Course work will involve analysis of data from neuroscience, reading and synthesizing articles from research journals, and project work.

Warning: This class is being taught for the first time: your flexibility and constructive engagement will be key to its development. This class may also involve field trips.

## **SCI2299: Special Topics in Biological Sciences**

### **Quantitative Biology**

Instructor: Wasylenko

2 SCI credits

*Registration note: Offered in Session I; Satisfies the ProbStat requirement.*

Quantitative analysis has long been critical to the development of new biological understanding, from statistical modeling of phage resistance in the 1940s to the current analysis of whole genome sequencing. Our class will examine many of these quantitative techniques. Broadly, we will use MATLAB and R to statistically evaluate biological experiments, mine transcriptomic datasets, and apply genetic linkage principles to uncover disease-associated genetic variants. In addition to programming, the class will read and discuss relevant scientific papers. Through these exercises, students will develop their abilities to critically evaluate data and effectively communicate their scientific ideas.

## **Courses Changed, Renumbered or New to Catalog**

### **AHSE2599: Special Topics in Entrepreneurship**

#### ***Iterate***

Instructor: Lawrence Neeley

Credits: 2 ENTRP

Hours: 2-0-4

*Prerequisite(s): AHSE1515 Products and Markets*

*Registration notes: May be taken multiple times. AHSE2515 is Session I; AHSE2515A is Session II. Four credits of AHSE2515 (formerly AHSE2599: Iterate) may satisfy the entrepreneurship concentration or capstone requirement.*

This course is about exploring the potential of ideas and their ability to create value “in the wild”. If you have the seed of an idea, an inkling, or even are just curious, this class offers an explicit structure for you to test and validate your ideas. Each offering of the course will consist of three two-week sprints. During each, you will be compelled to test a different question, hypothesis or assumption about your idea by getting in front of real people. Outside resources, mentors and advisors will be substantively engaged based upon the specific needs of each project.

Students may enter as either individuals or teams. You don't have to have a pre-existing idea or business before the course. This is a 2-credit course and may be taken multiple times for full credit. Four credits of this course may also be used to satisfy the project requirement as part of an entrepreneurship concentration.

### **CIE 2017B-01: Curriculum Innovation Experiment**

#### **Quantitative Engineering Analysis I**

Instructors: Coso Strong, Geddes, Govindasamy, Ruvolo, and instructor TBD

Credit: 8

**Note:** This is the second class of a two-class, 8-credit-each sequence. This two-class, 16-credit sequence is a designated alternative for the following courses: Linearity 1 and Linearity 2, the Physics Foundation course, Signals and Systems, and Dynamics. **Open only to students who took CIE 2017A in Spring 2017.**

The application of quantitative analysis of mathematical models and/or data can enable, improve, and speed up the engineering design process. Using quantitative analysis to answer engineering questions, you'll be able to make the choices necessary to successfully complete an engineering design. Whether you are selecting the best part from a catalog, choosing an appropriate material, sizing a component, determining the effect of certain influences on your design, or optimizing your design within a parameter space, you often need to obtain (through experiment or calculation) and interpret quantitative information to inform your decisions. There are many different approaches to getting and interpreting the data you need: you may conduct an experiment, do a rough estimation, perform a detailed calculation based on mathematical models, or create a computer simulation. If you want to engineer effectively, you must be able to choose and use appropriate quantitative tools for a given situation.

In this class, you will be introduced to various approaches to perform quantitative engineering analysis through real-world examples. You will learn how to *select* between different tools and different approaches within the context of an engineering challenge, how to *use* many different tools for quantitative analysis, and how to *acquire* new tools on your own in the future.

### **ENGR3220: User Experience Design**

*(formerly Human Factors and Interface Design)*

Instructor: Millner

Credits: 4 ENGR

*Registration notes: Design Depth option; ENGR major Core as applicable*

A hands-on exploration of the design and development of user interfaces, taking into account the realities of human perception and behavior, the needs of users, and the pragmatics of computational infrastructure and application. Focuses on understanding and applying the lessons of human interaction to the design of usable applications that span connected devices of different scales and interaction methods; will also look at lessons to be learned from less-usable systems. This course will mix studio (open project working time) and seminar (readings and discussion) formats.

### **ENGR3430: Eelectronics**

*(formerly EE Prototyping)*

Instructor: Minch

Credits: 4 ENGR

*Prerequisite: ENGR2110 Principles of Engineering*

*Registration note: satisfies the ECE elective requirement.*

Through a series of projects, students will learn all aspects of printed-circuit board (PCB) design at the prototype scale of manufacturing, including electronic circuit/system design, component selection, schematic capture, PCB layout, assembly, and testing. Familiarity with circuits, electronics, and firmware development at the levels of ISIM (ENGR 1125) and PoE (ENGR 2110) are required to take the course.

### **ENGR3540: Complexity Science**

*(formerly Computational Modeling)*

Instructor: Downey

Credits: 4 ENGR

*Prerequisite: Software Design*

“The study of complex systems represents a new approach to science that investigates how relationships between parts give rise to the collective behaviors of a system and how the system interacts and forms relationships with its environment.”

[\[Wikipedia\]](#)

This class is about complexity science, data structures and algorithms in Python, and the philosophy of science:

1. Complexity science is an interdisciplinary field—at the intersection of mathematics, computer science and other disciplines such as physics and economics—that focuses on models of systems with many components, local interactions, and complex behavior. These models are often characterized by structure, rules and transitions rather than by equations.
2. Data structures and algorithms in Python: This class picks up where Software Design leaves off, introducing additional data structures, algorithms, language features, design patterns, and software engineering tools that are appropriate for modeling, simulating and analyzing complex systems.
3. Philosophy of science: The models and results in this class raise a number of questions relevant to the philosophy of science—including the nature of scientific laws, theory choice, realism and instrumentalism, holism and reductionism—which we will discuss as they arise, along with related readings.

Topics may include the structure and dynamics of complex networks; cellular automata, self-organized criticality, and generative systems; fitness landscape models of biological and technological evolution; and agent-based models of social and economic behavior.

**SCI2215: Emerging Technologies in Cancer Research, Diagnosis and Treatment**

Instructor: Pratt

Credits: 4 SCI

Hours: 2-2-8

*Prerequisites: Foundation Biology, AP Biology score of 4 or 5 (or equivalent), or permission of the instructor*

More than thirty years have passed since the declaration of a “War on Cancer”, yet nearly 600,000 Americans are predicted to die from cancer this year. This course will examine the environmental and biological causes of cancer. We will explore why traditional treatments (chemotherapy, surgery and radiation) and the early promise of biotechnology have not led to a significant improvement of life expectancy for most forms of cancer. Through analyses of journal articles and clinical trials, we will assess the diverse emerging technologies for cancer research, diagnosis and therapy. Some of the technologies to be explored are immune checkpoint inhibitors, CRISPR, angiogenesis inhibitors, microarrays, stem cell therapy, gene therapy, genomic analysis and biological and immunological modifiers. Class discussion and student presentation of primary literature will be integral parts of this course. The course will include a student-designed laboratory component.

**Didn't find the course you're looking for? Check the course browser at**  
**[https://my.olin.edu/ICS/Course\\_Schedules.jnz](https://my.olin.edu/ICS/Course_Schedules.jnz)**

Area	Course #	Section #	Course Title	Instructor / Teaching Team	Time	Location	Credits	Enroll Limits	Waitlist	Notes	Degree Requirement Note
AHS	AHSE0112	01	The Olin Conductorless Orchestra	Dabby	R 6:45-9:00pm	AC304; AC305; AC318	1	30			
AHS	AHSE3130	01	Advanced Digital Photography	Donis-Keller	TF 1:30-3:10pm	AC313	4	12	Y, small		
AHS	AHSE3190	01	Arts Humanities Social Sciences Capstone Preparatory Workshop	Epstein	n/a	n/a	1	25			Prerequisite for AHSE4190
AHS	AHSE4190	04	<del>Arts Humanities Social Sciences Capstone Project</del>	Adler	M 10:50-1pm	AC417	4	45			AHS Capstone
Crosslisted	ENGR2999 OR SCI2399	01	Special Topics in Environmental Engineering and Science: Environmental Analysis & Engineering	Hersey; Wood	MTR 1-3:10pm	AC318; AC409	4	24	Y, small	Must choose either ENGR2999 for ENGR credit or SCI2399 for SCI credit at time of registration	If SCI2399 Chosen; will count as Mat Sci/Chem foundation
DSN	ENGR3220	01	User Experience Design	Millner	MR 1:30-3:10pm	AC213	4	35	Y, medium	formerly Human Factors Interface Design (HFID)	Design Depth Option
DSN	ENGR3250	01	Integrated Product Design	Neeley	R 3:30-6:30pm	AC213 when at Olin; also meets at Mass Art and Babson	4	15	Y, small	Shared course with Mass College of Art and Babson College; Will meet on all campuses throughout the semester	Design Depth Option
DSN	ENGR3290	01	Affordable Design and Entrepreneurship	Hersey; Govindasamy; Mur-Miranda	T 3:30-6:30pm	AC213	4	15	Y, small		Design Depth Option
DSN	ENGR3299	01	Special Topics in Design Engineering: <i>Return Design Studio/Shop Practicum</i>	Sauder	see instructor		4	6	Y, small	See instructor to enroll; <b>Offered as Experimental Grading</b>	Design Depth Option
DSN OR E:BE	ENGR3699	01	Special Topics in Bioengineering: Biomedical Device Design	Sarang-Sieminski	TF 1:30-3:10pm	AC326	4	15	Y, small		Core - BioE <b>OR</b> Design Depth



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E:C	ENGR2510	01	Software Design	Steele	MR 10:50-12:30pm	AC128	4	25	Y, small		Core - E:C and ECE
E:C	ENGR3520	01	Foundations of Computer Science	Pucella	R 4-6:30pm	AC326	4	32	Y, small		Core - E:C
E:C	ENGR3540	01	Complexity Science	Downey	TF 9-10:40am	AC326	4	25	Y, small	formerly Computational Modeling	Elective E:C
E:ROBO	ENGR3390	01	Fundamentals of Robotics	Barrett	TF 1:30-3:10pm	AC128	4	25	Y, small		Elective - E:Robo; or ME
ECE	ENGR3410	01	Computer Architecture	Hill	TF 10:50-12:30pm	AC304	4	32	Y, small		Core - ECE or E:C
ECE	ENGR3420	01	Introduction to Analog and Digital Communication	Govindasamy	MR 10:50-12:30pm	AC304	4	28	Y, small		Core - ECE
ECE	ENGR3430	01	Electronics	Minch	MR 3:20-5pm	AC304	4	24	Y, small	formerly EE Prototyping	Elective - ECE
ENGR	ENGR1330	01	Fundamentals of Machine Shop Operations	Andruskiewicz	W 1-5:00pm	AC104	4	6	Y, small		
ENGR	ENGR2110	01	Principles of Engineering	Faas; Hoover; Minch	TF 9-10:40am	AC306	4	25	Y, small		Core Requirement
ENGR	ENGR2110	02	Principles of Engineering	Faas; Hoover; Minch	TF 9-10:40am	AC309	4	25	Y, small		Core Requirement

Area	Course #	Section #	Course Title	Instructor / Teaching Team	Time	Location	Credits	Enroll Limits	Waitlist	Notes	Degree Requirement Note
ENGR	ENGR2110	03	Principles of Engineering	Faas; Hoover; Minch	TF 10:50-12:30pm	AC306	4	25	Y, small		Core Requirement
ENGR	ENGR2110	04	Principles of Engineering	Faas; Hoover; Minch	TF 10:50-12:30pm	AC309	4	25	Y, small		Core Requirement
ENGR Capstone	ENGR4190	01-13	SCOPE: Senior Capstone Program in Engineering	Coso Strong; Michalka; Sarang-Sieminski; Woodard	W 9-6pm	SCOPE Team Rooms	4	80		Enroll in '01 and team placements will be done in fall - also, don't forget to attend the info session during advising week.	
ENGR Capstone	ENGR4290	01	Affordable Design and Entrepreneurship	Hersey; Govindasamy; Mur-Miranda	T 3:30-6:30pm	AC213	4	15	Y, medium		
ENTRP	AHSE2515	01	Special Topics in Entrepreneurship: Iterate	Neeley	MR 9-10:40am	AC318	2	12	Y, large	SESSION I; may be taken multiple times	ENTRP Concentration Option
ENTRP	AHSE2515A	01	Special Topics in Entrepreneurship: Iterate	Neeley	MR 9-10:40am	AC318	2	12	Y, large	SESSION II; may be taken multiple times	ENTRP Concentration Option
FYR Seminar	OIE1000	01	Olin Introductory Experience	Tatar	W 9-10:40am	CC209, 211, 213	1	90			
FYR: AHS	AHSE1100	01	History of Technology: A Cultural & Contextual Approach	Martello	TF 10:50-12:30pm	CC209	4	18		Reserved for First Years	AHS Foundation
FYR: AHS	AHSE1122	01	The Wired Ensemble	Dabby	W 3:20-5pm; F 10:50-12:30pm	AC318; AC305	4	15		Reserved for First Years	AHS Foundation
FYR: AHS	AHSE1135	01	The Digital Eye: Photography, Vision, and Visual Communication	Donis-Keller	TF 10:50-12:30pm	AC313	4	14		Reserved for First Years	AHS Foundation

Area	Course #	Section #	Course Title	Instructor / Teaching Team	Time	Location	Credits	Enroll Limits	Waitlist	Notes	Degree Requirement Note
FYR: AHS	AHSE1155	01	Identity from the Mind & Brain: Who Am I and How Do I Know	Adler	TF 9-10:40am	AC328	4	18		Reserved for First Years	AHS Foundation
FYR: AHS	AHSE1155	02	Identity from the Mind & Brain: Who Am I and How Do I Know	Adler	TF 10:50-12:30pm	AC328	4	18		Reserved for First Years	AHS Foundation
FYR: AHS	AHSE1199	01	AHS Foundation Topic: From Dirt to Shirt	Lynch	TF 10:50-12:30pm	AC128	4	18		Reserved for First Years	AHS Foundation
FYR: DSN	ENGR1200	01	Design Nature	Chachra; Sauder; Hoover; Koff	MR 9:50-12:30pm	AC204; MH120	4	32	Y, small		Core Requirement
FYR: DSN	ENGR1200	02	Design Nature	Chachra; Sauder; Hoover; Koff	MR 9:50-12:30pm	AC206; MH120	4	32	Y, small		Core Requirement
FYR: DSN	ENGR1200	03	Design Nature	Chachra; Sauder; Hoover; Koff	MR 9:50-12:30pm	AC209; MH120	4	32	Y, small		Core Requirement
FYR: ENGR	ENGR1125	01	Introduction to Sensors, Instrumentation and Measurement	Dusek; Hill; Michalka; Storey	M 1:30-3:10pm; T 1-3:10pm	Mondays in MH120; AC428	4	24			Core Requirement
FYR: ENGR	ENGR1125	02	Introduction to Sensors, Instrumentation and Measurement	Dusek; Hill; Michalka; Storey	M 1:30-3:10pm; W 1-3:10pm	Mondays in MH120; AC428	4	24			Core Requirement
FYR: ENGR	ENGR1125	03	Introduction to Sensors, Instrumentation and Measurement	Dusek; Hill; Michalka; Storey	M 1:30-3:10pm; R 1-3:10pm	Mondays in MH120; AC428	4	24			Core Requirement
FYR: ENGR	ENGR1125	04	Introduction to Sensors, Instrumentation and Measurement	Dusek; Hill; Michalka; Storey	M 1:30-3:10pm; F 1-3:10pm	Mondays in MH120; AC428	4	24			Core Requirement

Area	Course #	Section #	Course Title	Instructor / Teaching Team	Time	Location	Credits	Enroll Limits	Waitlist	Notes	Degree Requirement Note
FYR: Interdisciplinary	MTH1111 SCI1111	01	Modeling and Simulation of the Physical World	Downey; Lee; Wood; Woodard	MTR 3:20-5:00pm	AC204; MH120	4	30			Core Requirement
FYR: Interdisciplinary	MTH1111 SCI1111	02	Modeling and Simulation of the Physical World	Downey; Lee; Wood; Woodard	MTR 3:20-5:00pm	AC206, MH120	4	30			Core Requirement
FYR: Interdisciplinary	MTH1111 SCI1111	03	Modeling and Simulation of the Physical World	Downey; Lee; Wood; Woodard	MTR 3:20-5:00pm	AC209; MH120	4	30			Core Requirement
Interdisciplinary	CIE2017B	01	Curriculum Innov Experiment: Quantitative Engineering Analysis II	Coso Strong, Geddes Govindasamy, Ruvolo	MR 1:30-5pm	AC113	8	36		Opt-In for Students Who Enrolled in CIE2017A in SP17	
Interdisciplinary	ENGR3699A MTH2188A	01	Special Topics in Bioengineering: Neurotechnology, Brains and Machines	Michalka	T 3:20-6:40pm	AC326	2+2	21	Y, small see below		Core Option: BioE OR Prob/Stat Requirement
ME	ENGR2340	01	Dynamics	Anders	TF 1:30-3:10pm	AC328	4	24	Y, small		ME Core
ME	ENGR3310	01	Transport Phenomena	Storey	MR 10:50-12:30pm	AC326	4	28	Y, small		Core - ME
ME	ENGR3330	01	Mechanical Design	Barrett	TF 9-10:40am	AC128	4	25	Y, small		Core - ME
ME/ECE	ENGR3370	01	Controls	Mur-Miranda	TF 9-10:40am	AC304	4	24	Y, small		Elective - ME or ECE
MTH	MTH2110	01	Discrete Math	Adams	MR 9-10:40am	AC326	4	33	Y, large		ECE; E:C Adv Mathematics

Area	Course #	Section #	Course Title	Instructor / Teaching Team	Time	Location	Credits	Enroll Limits	Waitlist	Notes	Degree Requirement Note
MTH	MTH2220	01	Linearity II	Hoffman	MR 1:30-3:10pm	AC328	4	42	Y, small		Core Requirement
SCI	SCI1121	01	Electricity and Magnetism	Mur-Miranda	TF 10:50-12:30pm	AC326	4	24	Y, small		Physics Foundation
SCI	SCI1230	01	Think Like a Biologist with Laboratory	Huang	MR 1:30-3:10pm	AC417	4	36	Y, small	select either L1 or L2 of SCI1230 L for the required lab	Biology Foundation
SCI	SCI1230 L	L1	Lab: Think Like a Biologist	Huang	W 12:30-3:10pm	AC406	0	18	Y, small	LAB only; must be taken with SCI1230, sec 01	Lab only
SCI	SCI1230 L	L2	Lab: Think Like a Biologist	Huang	R 3:20-6pm	AC406	0	18	Y, small	LAB only; must be taken with SCI1230, sec 01	Lab only
SCI	SCI1240	01	Designing Better Drugs with Laboratory	Pratt	TF 1:30-3:10pm; T 3:20-6pm	AC417; AC406 lab	4	24	Y, small		Biology Foundation
SCI	SCI1410	01	Materials Science and Solid State Chemistry (with laboratory): <i>Deliberately Relevant for Engineers</i>	Neal	MR 3:20-6pm	AC413	4	24	Y, small		Materials Science Foundation
SCI	SCI1410	B1	Materials Science and Solid State Chemistry (with laboratory): <i>Environmental and Societal Impacts</i>	Stolk	TW 3:20-6pm	AC413	4	24	Y, small	Offered using <b>Experimental Grading</b>	Materials Science Foundation
SCI	SCI2050	01	Art of Approximation in Science and Engineering	Mahajan	TF 10:50-12:30pm	AC109	4	48	Y, small		
SCI	SCI2215	01	Emerging Technologies in Cancer Research, Diagnosis and Treatment with Laboratory	Pratt	T 10:50-12:30pm; F 9:50-12:30pm	AC406; AC417	4	15	Y, small	May be taken in lieu of Biology foundation if AP Bio score of 4 or 5; or by placement test	Adv Biology

Area	Course #	Section #	Course Title	Instructor / Teaching Team	Time	Location	Credits	Enroll Limits	Waitlist	Notes	Degree Requirement Note
SCI	SCI2299	01	Special Topics in Biological Sciences: <i>Quantitative Biology</i>	Wasylenko	MR 10:50-12:30pm	AC318	2	18	Y, small	Session I	Prob Stat Designated Alternative
SUST	SUST2201	01	Introduction to Sustainability	Edmonds	W 3:30-6:30pm	at Olin AC213; also meets at Babson and Wellesley	4	15	Y, medium		CORE requirement for 3CollegesBOW Sustainability Certificate
ADMIN	AWAY1000	01	Study Away Program	Administration	n/a	n/a	12	n/a		Enroll in this course block to confirm your Study Away Semester	
ADMIN	OIP1000	01	The Olin Internship Practicum	Phelps	n/a	n/a	1	n/a		See Post Graduate Planning to Enroll	

Color Key- Offering Blocks	ECE	ME	ENGR / DSN Courses				ENGR or General Requirement										
	Monday				Tuesday				Wednesday								
9:00 AM	MTH 2110 Discrete Math AC326	ENGR 1200 ALL Sections Design Nature	AHSE 2515 and AHSE2515A Spec Top in ENTRP: Iterate SESS I and SESS II AC318			ENGR 3370 Controls AC304	ENGR 3330 Mechanical Design AC128	ENGR 3540 Complexity Science AC326			AHSE 1155-01 Identity of the Mind AC328	ENGR 2110, sec 01 Principles of Engineering AC306	ENGR 2110 sec 02 Principles of Engineering AC309	OIE 1000 Olin Intro Experience CC209, 211, 213	ENGR 4190 SCOPE		
10:40 AM	ENGR 3420 Analog and Digital Communication AC304	9:50-12:30pm MH120; AC204 AC206 AC209	ENGR 3310 Transport Phenomena AC326	ENGR 2510 Software Design AC128	SCI 2299 SESS I Spec Top in Bio Sci: Quantitative Biology AC318	AHSE 4190 AHS Capstone M 10:50-1pm AC417	SCI 1121 Electricity and Magnetism AC326	SCI 2050 Art of Approximation AC109	SCI 2215 Emerging Tech in Cancer Res T 10:50-12:30; F 9:50-12:30pm AC417; 406	ENGR 3410 Computer Architecture AC304	AHS Foundation AHSE1100: Hist of Tech AHSE1135: Digital Eye AHSE1199: Dirt to Shirt AHSE1155-02: Identity of the Mind CC209; AC313; AC328; AC128	ENGR 2110, sec 03 Principles of Engineering AC306	ENGR 2110 sec 04 Principles of Engineering AC309	Open Meeting Time 10:50-12:30pm			
12:30 PM	Open Meeting Time 10:50-12:30pm																
1:30 PM	SCI 1230 Think Like a Biologist AC417	ENGR 1125 ALL Sec Intro Sensors, Instru, Measurement MH 120	MTH 2220 Linearity II AC328	CIE2016B Quantitative Engineering Analysis II MR 1:30-5pm AC113	ENGR 3220 User Experience Design AC213	ENGR2999 OR SCI2399 Spec Topics in Env'tal Engr and Science: Environmental Analysis Engineering 1-3:10pm AC318 and AC409	ENGR 1125 sec 01 Intro Sensors, Instru, Measurement 1-3:10p AC428	SCI 1240 Designing Better Drugs Lecture AC417	ENGR 3390 Fundamentals of Robotics AC128	ENGR 2340 Dynamics AC328	ENGR2999 OR SCI2399 Spec Topics in Env'tal Engr and Science: Environmental Analysis Engineering 1-3:10pm AC318 and AC409	AHSE 3130 Advanced Digital Photography AC313	ENGR 3699 Spec Top in BioEngr: Biomedical Device Design AC326	ENGR 1125 sec 02 Intro Sensors, Instru, Measurement 1-3:10p AC428		SCI1230 L-1 LAB Think Like a Biologist LAB AC406	ENGR 1330 Fnd Machine Shop Operations 1-5:00p
3:10 PM	ENGR 3430 Electronics AC304	MTH 1111/ SCI 1111 All Sections Modeling and Simulation MH120 AC204 AC206 AC209		SCI 1410 - 01 Materials Science and Solid State Chemistry: Deliberately Relevant for Engineers AC413			SCI1240 Designing Better Drugs LAB AC406	SCI 1410 - B1 Materials Science and Solid State Chemistry: Env't'l and Societal Impacts AC413	MTH 1111/ SCI 1111 All Sections Modeling and Simulation MH120 AC204 AC206 AC209	ENGR 3290 and 4290 Affordable Design & Entrp 3:30-6:30p AC213 and Babson	ENGR 3699A & MTH2188 A Spec Top in BioEngr: and Math Neurotechnology Brains and Machines 3:20-6:40pm AC326	SUST2201 Intro to Sustainability : Babson, Olin, Wellesley Initiative 3:30-6:30 AC213	SCI 1410 - B1 Materials Science and Solid State Chemistry: Env't'l and Societal Impacts AC413	AHSE 1122 Wired Ensemble W 3:20-5p; F 10:50-12:30pm AC318, 305		AC104	
5:00 PM																	
6:00 PM																	
9:00:00 PM																	

AHSE		SCI			Math			INTEGRATED OFFERING (colored via discipline blending)				Color Key- Offering Blocks	
Thursday					Friday								
MTH 2110 Discrete Math AC326		AHSE 2515 and AHSE2515A Spec Top in ENTRP: Iterate SESS I and SESS II AC318			ENGR 3370 Controls AC304	ENGR 3330 Mechanical Design AC128		ENGR 3540 Complexity Science AC326		AHSE 1155-01 Identity of the Mind AC328	ENGR 2110, sec 01 Principles of Engineering AC306	ENGR 2110 sec 02 Principles of Engineering AC309	9:00 AM
ENGR 3420 Analog and Digital Communication AC304	ENGR 1200 ALL Sections Design Nature 9:50-12:30pm MH120; AC204 AC206 AC209	ENGR 3310 Transport Phenomena AC326	ENGR 2510 Software Design AC128	SCI 2299 SESS I Spec Top in Bio Sci: Quantitative Biology AC318	SCI 1121 Electricity and Magnetism AC326	SCI 2050 Art of Approximation AC109	SCI 2215 Emerging Tech in Cancer Res T 10:50-12:30; F 9:50-12:30pm AC417; 406	ENGR 3410 Computer Architecture AC304		AHS Foundation AHSE1100:Hist of Tech AHSE1122: Wired Ensemble AHSE1135: Digital Eye AHSE1155-02: Identity of the Mind AHSE1199: Dirt to Shirt CC209; AC318; AC313; AC128	ENGR 2110, sec 03 Principles of Engineering AC306	ENGR 2110 sec 04 Principles of Engineering AC309	10:40 AM 10:50 AM
													12:30 PM
ENGR 1125 sec 03 Intro Sensors, Instru, Measurement 1-3:10p AC428	SCI 1230 Think Like a Biologist AC417	MTH 2220 Linearity II AC328	CIE2016B Quantitative Engineering Analysis II MR 1:30-5pm AC113	ENGR 3220 User Experience Design AC213	ENGR2999 OR SCI2399 Spec Topics in Evtal Engr and Science: Environmental Analysis Engineering 1-3:10pm AC318 and AC409		ENGR 1125 sec 04 Intro Sensors, Instru, Measurement 1-3:10p AC428	SCI 1240 Designing Better Drugs Lecture AC417	ENGR 3390 Fundamentals of Robotics AC128	ENGR 2340 Dynamics AC328	AHSE 3130 Advanced Digital Photography AC313	ENGR 3699 Spec Top in BioEngr: Biomedical Device Design AC326	1:30 PM
ENGR 3430 Electronics AC304	SCI1230 L-L2 LAB Think Like a Biologist LAB AC406		ENGR 3250 Integrated Product Design 3:30-6:30p Location: all 3 campuses ; when at Olin AC213	ENGR 3250 Integrated Product Design 3:30-6:30p Location: all 3 campuses ; when at Olin AC213	SCI 1410-01 Materials Science and Solid State Chemistry: Deliberately Relevant for Engineers AC413	MTH 1111/ SCI 1111 All Sections Modeling and Simulation MH120 AC204 AC206 AC209	"Do Something" Dedicated Time						3:10 PM 3:20 PM
													5:00 PM
													6:00 PM
		AHSE 0112 Olin Conductorless Orchestra 6:45-9pm 304 + 305 + 318											9:00:00 PM



## TENTATIVE SPRING 2018 Course Listing

Discipline	Course Number	Course Title	Credits	Staffing	Comments
AHS	AHSE0112	The Olin Conductorless Orchestra	1	Dabby	
AHS	AHSE2112	Six Books that Changed the World	2	Martello	
AHS	AHSE2114	SciFi and Historical Context	2	Martello	
AHS	AHSE3190	Arts Humanities Social Sciences Capstone Preparatory Workshop	1	Epstein	
AHS	AHSE4190	Arts Humanities Social Sciences Capstone Project	4	Epstein	
Capstone	ENGR4290	Affordable Design and Entrepreneurship	4	Hersey; Linder; Mur-Miranda	
Capstone	ENGR4190	SCOPE: Senior Capstone Program in Engineering	4	Coso Strong; Michalka; Sarang-Sieminski	
Crosslisted	AHSE or ENGR2199/2299	Special Topics: Tell the Story of What You Make	4	Sauder	
DSN	ENGR2250	User-Oriented Collaborative Design	4	Hersey; Linder; Sarang-Sieminski; TBD	
DSN	ENGR3290	Affordable Design and Entrepreneurship	4	Hersey; Linder; Mur-Miranda	Design Depth
DSN	ENGR32XX	DESIGN DEPTH: Topic TBD	4	Sauder	Design Depth
DSN	ENGR3XXX	Biomimicry	4	Huang; Linder	Will satisfy Design Depth
E:BE	ENGR3810	Structural Biomaterials	4	Chachra	
E:C	ENGR2510	Software Design	4	Hill; Millner; Ruvolo	
E:C	ENGR3525	Software Systems	4	Downey	
E:C	ENGR3599	Special Topics in Computing: Computer Networks	4	Morrow	
E:C	ENGR3599	Special Topics in Computing: Hacking the Library	4	Steele	
E:C	ENGR3XXX	Accessible Technology and Technology for Access	4	Paul Ruvolo	MAY satisfy Design Depth
E:ROBO	ENGR3392	Robotics Systems Integration	4	Barrett	

## TENTATIVE SPRING 2018 Course Listing

Discipline	Course Number	Course Title	Credits	Staffing	Comments
ECE	ENGR2410	Signals and Systems	4	Mur-Miranda	
ECE	ENGR2420	Intro Microelectronic Circuits with Lab	4	Minch	
ENGR	ENGR1330	Fundamentals of Machine Shop Operations	4	Andruskiewicz	
ENGR	ENGR2199	Special Topics in Engineering : DREAM Designing Resources for Empowerm	4	Amon	
ENGR	ENGR3110	Elecanisms	4	Hoover; Minch	
ENTRP	AHSE1515	Products and Markets	4	Bowen; Lynch; Neeley, TBD	
ENTRP	AHSE2599A	Special Topics in Entrepreneurship: Iterate	2	Neeley	May be taken multiple times
ENTRP	AHSE3599	Special Topics in Entrepreneurship: Launch	4	Neeley	
Interdisciplinary	AHSE2114 ENGR2114	Engineering for Humanity	4	Lynch; TBD	
Interdisciplinary	CIE2018A	Curriculum Innov Experiment: Quantitative Engineering Analysis I	8	Somerville; Dusek; TBD	
Interdisciplinary	ENGR3531 MTH2131	Data Science	2+2	Downey	
Interdisciplinary	MTH2132 SCI2032	Bayesian Inference and Reasoning	2+2	Mahajan	
ME	ENGR2320	Mechanics of Solids and Structures	4	Lee	
ME	ENGR2330	Introduction to Mechanical Prototyping	4	Barrett; Faas	
ME	ENGR2350	Thermodynamics	4	Storey	
ME	ENGR3399	ME Elective or Design Depth	4	Lee	
MTH	MTH2210	Linearity I	4	Hoffman	
MTH	MTH3120	Partial Differential Equations	4	Hoffman	
MTH	MTH31XX	Numerical Methods and Scientific Computing OR Nonlinear Dynamics and Chaos	4	Geddes	

## TENTATIVE SPRING 2018 Course Listing

Discipline	Course Number	Course Title	Credits	Staffing	Comments
SCI	SCI1130	Mechanics	4	Mahajan	
SCI	SCI1240	Designing Better Drugs with Laboratory	4	Pratt	
SCI	SCI12XX	Foundation Biology Topics (with laboratory): TOPIC TBD	4	Wasylenko	
SCI	SCI1410	Materials Science and Solid State Chemistry (with laboratory)	4	Chachra	
SCI	SCI1410	Materials Science and Solid State Chemistry (with laboratory)	4	Stolk	
SCI	SCI2130	Quantum Physics	4	Holt	
SCI	SCI2140	Relativity	2	Holt	
SUST	SUST3301	Sustainability Synthesis	4	Wood	