# Fall 2016 Supplement and Course Offerings List

(vol15, no1.1, August 26, 2016)

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 2016-17 or special topics)
- 4) Course Offerings List (you can also search this here: <u>Course Search</u>)
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General Registration Information and FAQs (formerly contained in the registration booklets), please visit our <u>web page</u>.

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

Session	Add	Drop and Pass/No Credit	Withdraw
Full Semester (Sep 1 – Dec 9)	September 15, 2016	November 4, 2016	December 9, 2016
Session I (Sep 1 – Oct 18)	September 9, 2016	October 4, 2016	October 18, 2016
Session II (Oct 19 – Dec 9)	October 26, 2016	November 18, 2016	December 9, 2016

### **Cross-Registration Deadlines** To find cross-registration instructions, click <u>here</u>.

	Babson	Brandeis	Wellesley
Cross-registration open period	4/18/2016 - 9/7/2016 at 4:30 p.m.	8/17/2016 - 9/8/2016	4/18/2016 – 9/14/2016 at 11 p.m.
First day of classes	8/31/2016	8/25/2016	9/1/2016
Drop deadline	9/7/2016 at 4:30 p.m.	10/11/2016	9/28/2016 at 11 p.m.

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

### Course Tips & Curriculum Info

As a result of the many connections made with students, faculty and academic leadership in planning the delivery of the Olin curriculum, we've made some adjustments since the course fair in February. Below is a summary:

#### **Products and Markets Update**

- The 2016-17 year is the final transition year for students to make substitutions or exceptions for a required Entrepreneurship foundation.
- During the fall 16 or spring 17 semesters, students who have yet to complete this requirement should enroll in New Technology Ventures (NTV) at Olin (fall; Monday/Wednesday 4:45-6:20p) or EPS3501 Entrepreneurship and Opportunity at Babson (fall or spring); see fall schedule below. Other considerations may be considered by petition.
- NTV note: the course is run by a Babson faculty member and is designed to be a cross-campus experience. We are aware that the current schedule of Mon/Wed is highly undesirable for SCOPE students. If you need to request permission to enroll in a conflicting course, please contact the SCOPE office.
- Olin will no longer be offering a non-first year version of AHSE1515: Products and Markets

EPS3501-01	ENTREPRENEURSHIP AND OPPORTUNITY	MW 11:30AM- 1:05PM	Gale, Mary
EPS3501-02	ENTREPRENEURSHIP AND OPPORTUNITY	TR 11:30AM- 1:05PM	George, Bradley
EPS3501-03	ENTREPRENEURSHIP AND OPPORTUNITY	TR 3:00PM- 4:35PM	George, Bradley

#### We are NOT offering the following courses in the Fall 2016 semester:

- Regional Analysis & Development (RAD)
- ECE elective on Design Feasibility
- Entrepreneurship Capstone this course will be reimagined for the Spring 2017 offerings to better support students interests, projects and activities. It will not require that your concentration be complete to take the experimental version in Spring 2017.

#### We ARE offering:

- Controls
- Systems

#### Note Curriculum Changes Beginning Fall 2016

**PROBABILITY and STATISTICS Requirement** 

All Olin degrees retain the requirement of a Probability and Statistics requirement. This requirement may be satisfied with successful completion of one of the following courses:

MTH2130: Probability and Statistics

MTH2131/ENGR3531: Data Science

MTH2132/SCI2032: Bayesian Inference and Reasoning

MTH2133: Computational Bayesian Statistics

MTH2134/ENGR2134: Regional Analysis in Development

The offerings for probability and statistics will include 1 in the fall and 3 in the spring.

#### **BIOLOGY FOUNDATION Requirement**

All Olin degrees retain the requirement of a Biology lab course. This requirement may be satisfied in 1 of two ways.

Option 1: Successful completion of one of the following courses

SCI1210 Principles of Modern Biology with Laboratory,

SCI1220 Human Genetics and Genomics with Laboratory,

SCI1230 Think Like a Biologist with Laboratory,

SCI1240 Designing Better Drugs with Laboratory,

SCI1250 Six Microbes that Changed the World with Laboratory,

The Intersection of Biology, Art and Technology with Professor Donis-Keller is an additional option for the spring 2017 semester. It will include 4 credits of AHS and 4 credits of foundational Biology.

<u>Option 2:</u> If a student received a score of 5 on AP biology, they may either choose option 1 above or take one of Olin's advanced biology courses. Students who received a 3, 4 or completion of an IB curriculum may sit for an oral exam that may exempt them from one of the above foundations and place them into an advanced biology course.

The offerings for biology foundations will include 2 in the fall and 2 in the spring. There is also 1 advanced biology in the fall and 1 advanced biology in the spring.

#### Advanced MATHEMATICS in the MAJOR

- For ME (and other ENGR designed majors), we are offering Complex Variables in the fall and tentatively Partial Differential Equations in the spring
- For the 2016-17 Year, Discrete Mathematics is NOT a pre-req for Foundations of Computer Science (FOCS) this is an experiment for 2016-17

#### **Frequency of Offerings:**

- FOCS will be offered in Fall and SPRING during the 2016-17 year, and only fall thereafter
- Design Depths: the offerings for design depths will include 4 in the fall and 3 or 4 in the spring.
- Analog and Digital Communication (ADC) and Digital Signals Processing (DSP) are swapping their fall/spring order from previous years. During the 2016-17 year DSP is fall; ADC is spring
- Principles of Engineering (POE) is a fall only offering. There will be NO sections in the spring semester.
- Chemistry/Materials Science Foundations: the offerings for foundational chemistry and materials science will include 3 in the fall and 2 in the spring.

#### Offerings in Design (Non-Design Depths)

• Critical Designer, Activist Engineer: Making Things and Making Things Happen is a new course designed as an intermediate offering and does not carry UOCD as a prerequisite. As this course is being developed the enrollment is limited and is targeted with 6 seats for rising juniors and 6 seats for rising sophomores.

#### Restart of the 3 Colleges BOW Sustainability Certificate

 After a one year hiatus, the 3 Colleges BOW have restarted the Sustainability Certificate. For detailed information, please visit the 3 Colleges BOW site here: <u>http://bow3colleges.org/sustainability-certificate/</u>

# **Catalog Supplement**

Degree requirements are outlined in the course catalog: <u>http://www.olin.edu/course-catalog/2015-16-course-catalog/</u>

**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

Media Revolution: Activism and Technology Instructor: Vitols Credits: 4 AHS

AHS FOUNDATION; priority given to first year students

Since their inceptions, radio, film and television have been utilized for political purposes. Yet the advent of digital technology has profoundly altered the traditional relationships between media and activism. From "hacktivism" to the events of the Arab Spring, new media provide an influential contemporary forum for advocating for change. This course explores the way media are employed for political and social purposes, investigating the different approaches used today to transform our virtual and real worlds.

#### AHSE1199-02: Arts, Humanities, Social Science Foundation Topic

**Robots, Mutants and Monsters: Envisioning Science in Cinema** Instructor: Vitols Credits: 4 AHS

#### AHS FOUNDATION; priority given to first year students

Throughout the history of cinema, filmmakers have experienced both fascination with and fear of technology. Contemporary scientific advancements have inspired countless cinematic representations that express cultural excitement, ethical concern and social anxiety regarding such innovations as artificial intelligence and nuclear engineering. By placing such films as Metropolis (1927), 2001: A Space Odyssey (1968), and The Matrix (1999) in their historical and cultural contexts, this course will consider multiple approaches to the representation of science on screen. This course **requires** attendance at Sunday evening film screenings from 7:30-10pm.

#### AHSE 3599-01: Special Topics in Business and Entrepreneurship

Intellectual Property Protection for Innovative Designs Instructor: Diane Covello Credits: 4 E! Prerequisite – AHSE 1515

The objectives of this project-based course are to engage in the process of real-world innovation and to learn how to legally protect innovative solutions. During the semester, students will prepare and file patent applications for their inventions. The class will begin with an overview of the types of intellectual property protection available in the United States for inventive products and processes. Students will design their own solutions to technical problems during the first few weeks of the course, or will come to class with a significant product and/or process innovation already in mind. With guidance from the instructor, each student will work individually or as part of a small group to research the "prior art" and then prepare the text and drawings for a utility patent application directed to their invention. The final project for the class will be e-filing the utility patent applications with the U.S. Patent and Trademark Office. While the course primarily is directed to patents, several class periods will be devoted to other types of intellectual property, including trademarks, copyrights, trade secrets and cyber law. During the first two months of the course, students will prepare a Problem-Solution Notebook containing their innovative ideas, and will create and search a proposed trademark. Readings throughout the semester will include articles on the topic of innovation.

#### ENGR2299-01: Special Topics in Design

Critical Designer, Activist Engineer: Making Things and Making Things Happen

Instructor: Hendren Credits: 4 ENGR Registration note: enrollment limited to 6 rising juniors and 6 rising sophomores

What happens when design and engineering research results in activism, human rights work, politics, or matters of equity and justice? Engineers and designers are often thought of as "problem-solvers" in mostly technical, practical, and formal senses. But this class explores the equally compelling history of engineering and design projects that raise difficult questions, aid marginalized communities, address urgent social issues, or create new conditions. We'll talk to designers, artists, and engineers who work on issues of sustainability, power, health, education, and more. And we'll run our own experiments in creative design work for the public good. The class includes significant reading, field trips and lectures, short experiments, and a culminating project.

#### ENGR3599-01: Special Topics in Computing

**Complexity Science** Instructors: Allen Downey and Jason Woodard 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:

- 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.

#### ENGR3599A-01: Special Topics in Computing

**Programming Languages** Instructor: Pucella Credits: 4 ENGR

This course is an introduction to the theory, design, and implementation of programming languages. Topics covered may include: semantics of programming languages, types, higher-order functions and lambda calculus, objects, laziness, continuations, monads, objects, and concurrency. Class work revolves around the implementation of interpreters for a variety of small programming languages.

#### SCI1210-01: Principles of Modern Biology

Through the Lens of Human Disease Instructor: Wasylenko Credits: 4 SCI

This course explores the fundamental principles of biology through the lens of human disease. The underlying causes of human disease are illustrative of foundational biological concepts. For example, the connection between genetics and biochemistry was established by the study of the metabolic disorder alkaptonuria (a rare disease which causes severe, early-onset arthritis), and the importance of proper protein production and processing is shown by collagen defects in Ehlers-Danlos syndrome (a connective tissue disorder resulting in joint hypermobility and weakened skin and blood vessels). In this course, we will examine numerous examples drawing heavily on historic scientific literature and case studies to understand fundamental biology from a human diseases perspective. Experimental design and analysis will be emphasized, and this understanding will be complemented by laboratory activities. Through discussion, literature analysis, and group projects, students will have diverse opportunities to enhance their written and oral communication skills.

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

#### CIE 2016B-01: Curriculum Innovation Experiment

Quantitative Engineering Analysis I

Instructors: Govindasamy, Christianson, Geddes, Lee, Somerville 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 2016A in Spring 2016**.

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.

#### ENGR3230-01: Investigating Normal: Adaptive and Assistive Technologies

Instructor: Hendren Credits: 4 ENGR Prerequisite: ENGR2250 Registration note: This course satisfies the Design Depth requirement.

Assistive technologies usually refer to prosthetics and medical aids: tools, devices, and other gear that either restore or augment the functioning of body parts. Historically, these have been designed for people with diagnosable disabilities. In this course, we look at medical as well as cultural tools that investigate the "normal" body and mind, and we design our own devices—high-tech, low-tech, digital or analog—with these ideas in mind. Through readings, site visits, guest speakers, and projects, we investigate both traditional and unusual prosthetics and assistive technologies, broadly defined. We talk to end-users, to engineers and industrial designers, to artists, and to others whose technologies assist with visible and invisible needs, externalize hidden dynamics, and create capacities far beyond or outside ordinary functionality.

#### ENGR3250-01: Integrated Product Design

Instructor: Neeley Credits: 4 ENGR Prerequisite: ENGR2250 Registration note: This course satisfies the Design Depth requirement.

You will work with industrial design students from the Massachusetts College of Art and Design (in Boston) and business students from Babson College to develop new products through a project sponsored by a company. Projects have an Internet of Things (IOT) theme that is informed by contexts chosen by students, such as food, recreation, health, and education. Students learn first hand about the techniques and contributions different disciplines bring to product design and practice cross-functional collaboration common in professional design settings. Multiple guest speakers from local product design companies provide first-hand insight into this practice. This course provides valuable preparation for students interested to work in design firms, such as Continuum, IDEO, Frog, Altitude and Essential to name a few, or develop and launch their own consumer products. Class will be held once a week and rotate among all three campuses. Babson students should enroll in MOB 3578. Wellesley students should cross-register into this course and not MOB 3578 at Babson.

#### ENGR3426-01: Mixed Analog-Digital VLSI I

Instructors: Minch, Hill Credits: 4 ENGR Prerequisite(s): ENGR2420

This course will provide an overview of mixed-signal (analog and digital) integrated circuit design in modern complementary metal-oxide (CMOS) technologies. Students will learn transistor-level design of digital and analog circuits, layout techniques for digital and analog circuit modules, and special physical considerations that arise in a mixed-signal integrated circuit. Students will design a custom mixed-signal integrated circuit that will be sent out for fabrication at the end of the semester if they enroll in MADVLSI II (ENGR3427).

#### MTH 2133-01: Computational Bayesian Statistics (Session I)

Instructor: Allen Downey Credits: 2 MTH Prerequisite: Software Design Registration notes: This course satisfies the Probability and Statistics Requirement.

This class will be offered in the first half of the fall semester. Students will have the option to continue work in the second half of the semester as an independent study project.

Bayesian statistics provide a powerful toolkit for modeling random processes and making predictions. The ideas behind these tools are simple, but expressing them mathematically can make them hard to learn and apply. This class takes a computational approach, which allows students with programming experience to use that knowledge as leverage. Students will work through a series of exercises in the book, *Think Bayes*, and help develop new material.

#### SCI1240-01: Designing Better Drugs with Laboratory

Instructor: Pratt Credits: 4 SCI Registration Note: The course satisfies the biology foundation requirement

This class 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.

#### SCI1310-01: Introduction to Chemistry (with laboratory)

**Environmental Systems Science** 

Instructor: Hersey Credits: 4 SCI

Semester Specific Course Description: This new course is an initial offering of what will be *Environmental Systems Science* in future years, and students will have the opportunity to help co-design the course for future iterations. Through the course, we will build a toolkit of chemistry fundamentals for (and through) in-depth analysis of three major environmental problems: environmental lead poisoning, mobile energy use, and global climate change. The course will emphasize real-world application of chemistry, and holistic problem solving and research methods. Chemistry topics will include quantum chemistry and bonding, chemical thermodynamics, gas laws, equilibrium, solubility, acid/base systems, electrochemistry, kinetics, and a number of topics necessary for addressing the problems presented by projects.

#### SCI2050-01: The Art of Approximation in Science and Engineering

Instructor: Mahajan Credits: 4 SCI

For historical reasons, our courses are organized by disciplinary area, be it mechanics, calculus, differential equations, or molecular biology. However, there are modes of reasoning that span many areas of science or engineering. Nine such crosscutting modes of reasoning are the focus of the proposed course. The nine modes group themselves into three approaches to the complexity of the world: (1) organizing the complexity (for example, with divide-and-conquer reasoning); (2) discarding apparent complexity (for example, with symmetry or dimensional analysis); and (3) discarding actual complexity (for example, by approximating with spring models or lumping).

#### SUST2201-01: Introduction to Sustainability

Instructors: Linder, et al Credits: 4 SUST Prerequisite(s): Sophomore and/or junior standing; first years by permission only

Addressing the challenge of using earth's resources sustainably requires a collaborative and interdisciplinary approach. This course introduces students to the basic concepts and tools that business, engineering, and the liberal arts (science, social science, and the humanities) bring to a consideration of sustainability. Students from Wellesley, Olin, and Babson Colleges engage in hands-on challenges to develop the cross-disciplinary awareness and collaboration skills needed to approach environmental issues holistically. This course meets the first requirement in the Sustainability Certificate Program (bow3colleges.org/sustainability-certificate) awarded by all three colleges.

#### Additional Information

Four total credits may be used toward the 28 AHS/Entrp minimum distribution credit requirement if this course and SUST3301: Sustainability Synthesis are successfully completed.

Didn't find the course you're looking for? Check the course browser at 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	Olin Conductorless Orchestra	Dabby	R 6:45-9:00pm	AC304; AC305; AC318	1	25	Ν		AHS Elective
AHS	AHSE2170	01	Teaching and Learning in Undergraduate Science and Engineering	Zastavker	T 1-3:40pm	MH373	4	14	Y, small	Offered Using EXPERIMENTAL Grading	AHS Elective
AHS	AHSE3190	01	Arts Humanities Social Sciences Preparatory Workshop (AHS Prepstone)	Epstein	n/a	n/a	1	99	n/a		AHS Prepstone
AHS	AHSE4190	01	Arts Humanities Social Sciences Capstone	Adler	M 1:00-3:40pm	AC318	4	25	Ν		AHS Capstone
DSN	ENGR2299	01	Special Topics in Design: Critical Designer, Activist Engineer: Making Things and Making Things Happen	Hendren, Chachra	MR 1:30-3:10pm	AC213	4	14		enrollment by lottery	Elective - no UOCD pre-req needed
DSN	ENGR3220	01	Human Factors Interface Design	Millner	TF 1:30-3:10pm	AC213	4	25	Y, small		Design Depth Option; ENG major Core as applicable
DSN	ENGR3230	01	Investigating Normal: Adaptive and Assistive Technologies	Hendren	MR 10:50-12:30pm	AC213	4	25	Y, large	Offered using EXPERIMENTAL Grading	Design Depth Option
DSN	ENGR3250	01	Integrated Product Design	Neeley	R 3:30-6:30pm	AC213	4	15	Y, small	Offered in collaboration with Babson and Mass College of Art	Design Depth Option
DSN	ENGR3290	01	Affordable Design and Entrepreneurship	Linder, Govindasamy, Hersey, Mur- Miranda, Taha, Staff	T 3:30-6:30pm	AC213	4	15	Y, small		Design Depth Option
DSN	ENGR4290	01	Affordable Design and Entrepreneurship	Linder, Govindasamy, Hersey, Mur- Miranda, Taha, Staff	T 3:30-6:30pm	AC213	4	15	Y, small		Required Capstone Option

Area	Course #	Section #	Course Title	Instructor / Teaching Team	Time	Location	Credits	Enroll Limits	Waitlist	Notes	Degree Requirement Note
E:Bio	ENGR3600	01	Topics in Bioengineering	Sarang- Sieminski	MR 9-10:40am	AC417	4	20	Ν		BioE Core
E:C	ENGR2510	01	Software Design	Steele	MR 3:20-5:00pm	AC128	4	25	Y, small		ECE or E:C Core
E:C	ENGR3520	01	Foundations of Computer Science	Steele; Stein	MR 1:30-3:10pm	AC326	4	25	Y, large		E:C Core
E:C	ENGR3599	01	Special Topics in Computing: Complexity Science	Downey; Woodard	TF 9-10:40am	AC326	4	25	Y, small		E:C Elective
E:C	ENGR3599A	01	Special Topics in Computing: Programming Languages	Pucella	T 4-6:30pm	AC326	4	25	Y, small		E:C Elective
E:ROBO	ENGR3390	01	Fundamentals of Robotics	Barrett	MR 1:30-3:10pm	AC128	4	48	Y, large		E: Robo Core or ME Elective
ECE	ENGR3410	01	Computer Architecture	Hill	MR 9-10:40am	AC318	4	25	Y, small		ECE Core
ECE	ENGR3415	01	Digital Signal Processing	Dabby	TF 1:30-3:10pm	AC304	4	25	Ν		ECE Core
ECE	ENGR3426	01	Mixed Analog-Digital VLSI I	Minch	MR 1:30-3:10pm	AC304	4	25	Ν		ECE Elective Option
ECE / ME	ENGR3370	01	Controls	Mur-Miranda	MR 3:20-5:00pm	AC304	4	24	Y, small		ECE or ME Elective

Area	Course #	Section #	Course Title	Instructor / Teaching Team	Time	Location	Credits	Enroll Limits	Waitlist	Notes	Degree Requirement Note
ENGR	ENGR1330	01	Fundamentals of Machine Shop Operations	Andruskiewicz	W 1-5:00pm	AC104	4	6	Y, small		Elective
ENGR	ENGR2110	01	Principles of Engineering	Bennett; Hoover; Minch; Faas	TF 9-10:40am	AC306	4	25	Y, small	Note: New Number	Engineering Core Requirement
ENGR	ENGR2110	02	Principles of Engineering	Bennett; Hoover; Minch; Faas	TF 9-10:40am	AC309	4	25	Y, small	Note: New Number	Engineering Core Requirement
ENGR	ENGR2110	03	Principles of Engineering	Bennett; Hoover; Minch; Faas	TF 10:50-12:30pm	AC306	4	25	Y, small	Note: New Number	Engineering Core Requirement
ENGR	ENGR2110	04	Principles of Engineering	Bennett; Hoover; Minch; Faas	TF 10:50-12:30pm	AC309	4	25	Y, small	Note: New Number	Engineering Core Requirement
ENGR	ENGR4190	01	Senior Capstone Program in Engineering (SCOPE)	Sarang- Sieminski et al	W 9-6:00pm	varies locations	4	99	Ν		Required Capstone Option
ENTRP	AHSE3510	01	New Technology Ventures	Gale	MW 4:45-6:20pm	Tomasso 101 at Babson College	4	15	Y, small		ENTRP Elective or may substitute for foundation
ENTRP	AHSE3599	01	Special Topics in Entrepreneurship: Intellectual Property Protection for Innovative Designs	Covello	MR 3:20-5:00pm	MH273	4	12	Y, small		ENTRP Elective
FYR	OIE1000	01	Olin Introductory Experience	Tatar	W 9-10:40am	CC209, 211, 213	1	84	N		Required First Year Course
FYR: AHS	AHSE1100	01	History of Technology: A Cultural & Contextual Approach	Martello	TF 10:50-12:30pm	AC326	4	16	N		AHS Foundation Option

Area	Course #	Section #	Course Title	Instructor / Teaching Team	Time	Location	Credits	Enroll Limits	Waitlist	Notes	Degree Requirement Note
FYR: AHS	AHSE1122	01	The Wired Ensemble - Instruments, Voices, Players	Dabby	W 3:20-5:00pm; F 10:50-12:30pm	AC304; AC305	4	15	N		AHS Foundation Option
FYR: AHS	AHSE1135	01	The Digital Eye: Photography, Vision, and Visual Communication	Donis-Keller	TF 10:50-12:30pm	AC313	4	14	Ν		AHS Foundation Option
FYR: AHS	AHSE1155	01	Identity from the Mind & the Brain: Who Am I and How Do I Know	Adler	TF 10:50-12:30pm	AC328	4	16	Ν		AHS Foundation Option
FYR: AHS	AHSE1199	01	Arts, Humanities, Social Science Foundation Topic: Media Revolution: Activism and Technology	Vitols	TF 9-10:40am	AC318	4	18	N		AHS Foundation Option
FYR: AHS	AHSE1199	02	Arts, Humanities, Social Science Foundation Topic: Robots, Mutants and Monsters: Envisioning Science in Cinema	Vitols	TF 10:50-12:30pm	AC318	4	18	Ν		AHS Foundation Option
FYR: DSN	ENGR1200	01	Design Nature	Hoover, Linder, Chachra, Sauder	MR 9:50-12:30pm	MH120; AC204	4	32	Y, small for xreg		Gen. Engineering Req't
FYR: DSN	ENGR1200	02	Design Nature	Hoover, Linder, Chachra, Sauder	MR 9:50-12:30pm	MH120; AC206	4	32	Y, small for xreg		Gen. Engineering Req't
FYR: DSN	ENGR1200	03	Design Nature	Hoover, Linder, Chachra, Sauder	MR 9:50-12:30pm	MH120; AC209	4	32	Y, small for xreg		Gen. Engineering Req't
FYR: ENGR	ENGR1125	01	Introduction to Sensors Instrumentation and Measurement	Hill; Storey; Geddes; Michalka	M 1:30-3:10p Lecture; T 1-3:10pm LAB	MH120 on Mon; AC428	4	21	Y, small for xreg		Engineering Core Requirement
FYR: ENGR	ENGR1125	02	Introduction to Sensors Instrumentation and Measurement	Hill; Storey; Geddes; Michalka	M 1:30-3:10p Lecture; W 1-3:10pm LAB	MH120 on Mon; AC428	4	21	Y, small for xreg		Engineering Core Requirement

Area	Course #	Section #	Course Title	Instructor / Teaching Team	Time	Location	Credits	Enroll Limits	Waitlist	Notes	Degree Requirement Note
FYR: ENGR	ENGR1125	03	Introduction to Sensors Instrumentation and Measurement	Hill; Storey; Geddes; Michalka	M 1:30-3:10p Lecture; R 1-3:10pm LAB	MH120 on Mon; AC428	4	21	Y, small for xreg		Engineering Core Requirement
FYR: ENGR	ENGR1125	04	Introduction to Sensors Instrumentation and Measurement	Hill; Storey; Geddes; Michalka	M 1:30-3:10p Lecture; F 1-3:10pm LAB	MH120 on Mon; AC428	4	21	Y, small for xreg		Engineering Core Requirement
FYR: INTEGRA TED	MTH1111/ SCI1111	01	Modeling and Simulation of the Physical World	Somerville, Strong, Woodard, Wood	MTR 3:20-5:00pm	MH120; AC204	2+2	30	Y, small for xreg		Mathematics/Scienc e Core
FYR: INTEGRA TED	MTH1111/ SCI1111	02	Modeling and Simulation of the Physical World	Somerville, Strong, Woodard, Wood	MTR 3:20-5:00pm	MH120; AC206	2+2	30	Y, small for xreg		Mathematics/Scienc e Core
FYR: INTEGRA TED	MTH1111/ SCI1111	03	Modeling and Simulation of the Physical World	Somerville, Strong, Woodard, Wood	MTR 3:20-5:00pm	MH120; AC209	2+2	30	Y, small for xreg		Mathematics/Scienc e Core
INTEGRA TED	CIE2016B	01	Qualitative Engineering Analysis II	Govindasamy; Christianson, Geddes, Lee; Somerville	MR 9-12:30pm	AC113	8	36	n/a	Students Currently Enrolled in QEA I (spring 2016) will be added to this section for fall 2016; EXPERIMENTAL Grading	Opt-In Integrated Req't
ME	ENGR2340	01	Dynamics	Mahajan	TF 9-10:40am	AC328	4	48	Y; large		ME Core
ME	ENGR3310	01	Transport Phenomena	Storey	TF 9-10:40am	AC417	4	32	Y, small		ME Core
ME	ENGR3330	01	Mechanical Design	Barrett	MR 9-10:40am	AC128	4	25	Y, small		ME Core
ME	ENGR3710	01	Systems	Bennett	TF 1:30-3:10pm	AC328	4	15	Y, small		Design Depth or ME Elective

Area	Course #	Section #	Course Title	Instructor / Teaching Team	Time	Location	Credits	Enroll Limits	Waitlist	Notes	Degree Requirement Note
MTH	MTH2110	01	Discrete Math	Adams	TF 10:50-12:30pm	AC417	4	30	Y, large		Advanced Math in Major (ECE and others as designed)
MTH	MTH2133	01	Computational Bayesian Statistics	Downey	MR 3:20-5:00pm	AC326	2	25	Y, small	SESSION I	Prob Stat Option
MTH	MTH2220	01	Linearity II	Hoffman	MR 10:50-12:30pm	AC328	4	48	Ν		Mathematics Core
MTH	MTH3160	01	Complex Variables	Hoffman	TF 1:30-3:10pm	AC09	4	20	Y, small		Advanced Math in Major (ME and others as designed)
SCI	SCI1121	01	Electricity and Magnetism	Zastavker	MR 9-10:40am	AC328	4	25	Y, small		Physics Foundation Option
SCI	SCI1210	01	Principles of Modern Biology with Laboratory: <i>Through the Lens of Human Disease</i>	Wasylenko	TF 1:30-3:10pm; T 3:20-6pm	AC417; AC406	4	24	Y, small		Biology Foundation Option
SCI	SCI1240	01	Designing Better Drugs with Laboratory	Pratt	MR 9-10:40am; R 3:20- 6pm	AC326; AC406	4	24	Y, small		Biology Foundation Option
SCI	SCI1310	01	Introduction to Chemistry with Laboratory: Environmental Systems Science	Hersey	TF 1:30-3:10pm; W 12:30-3:10pm	AC326; AC409	4	24	Y, small		Foundation Mat Sci / Chem Option
SCI	SCI1410	01	Materials Science and Solid State Chemistry	Christianson	MR 3:20-6:00pm	AC413	4	24	Y, small		Foundation Mat Sci / Chem Option
SCI	SCI1410	B1	Materials Science and Solid State Chemistry: Environmental and Societal Impact of Materials	Stolk	TF 10:50-2:15pm (with a 40 minute break for lunch	AC413	4	24	Ν	Offered Using EXPERIMENTAL Grading	Foundation Mat Sci / Chem Option

Area	Course #	Section #	Course Title	Instructor / Teaching Team	Time	Location	Credits	Enroll Limits	Waitlist	Notes	Degree Requirement Note
SCI	SCI2050	01	Art of Approximation in Science and Engineering	Mahajan	TF 10:50-12:30pm	AC109	4	32	Y, small		Science Elective
SCI	SCI2210	01	Immunology	Pratt	M 1:00-3:40; R 1-2:40p	AC417; AC406	4	12	Y, small		Advanced Biology
SUST	SUST2201	01	Introduction to Sustainability	Linder	W 3:30-6:30pm	AC213	4	15	Y, small		SUST Cert Prog Requirement
ADMIN	AWAY1000	01	Study Away Program	Administration	n/a		12			Enroll in this course block to confirm your Study Away Semester	
ADMIN	OIP1000	01	The Olin Internship Practicum	Phelps	n/a		1			See Post Graduate Planning to Enroll	

Color Key- Offering Blocks	ECE ME									ENGR /	ENGR / DSN Courses ENGR or General Requirement														
				Ν	/londa	ау				Tuesday									Wedn	esday					
9:00 AM		SCI 1240 Designin g Better Drugs Lecture	ENGR 3410 -01 Compute r Architect ure	ENGR 3330 Mechani cal Design	ENGR 3600 Topics in Bioengin eering AC417	SCI 1121 Electricit y and Magnetis m	OIE ENGR 1200	CIE2016B Quantitat ive Engineeri ng Analysis II					ENG 2340 Dyna AC33	R ENC 331 amics Trai t Phe na 28 AC4	iR ENG 0 359 Con ty Scie 17 AC3	GR AH 9 11 nplexi AH To ence Me Re n AC	ISE 99 - 01 IS Fnd pic : edia volutio	ENGR 2110, sec 01 Principles of Engineeri ng	ENGR 2110 sec 02 Principle s of Engineeri ng	OIE 1000 Olin Intro Experien ce CC209, 211, 213					
10·40 AM							ALL Sections	MR 9-										AC306	AC309						
10:50 AM						MTH 2220 Linearity II	Design Nature 9:50- 12:30pm MH120; AC204 AC206 AC209	AC113	ENGR 3230 Investiga ting Normal: Adaptive and Assistive Tech AC213			SCI 1410 - B1 Materials Science and Solid State Chemistry 10:50a- 2:15p		Art of Approxi mation AC109	MTH 2110 Discrete Math AC417	AHS Four AHSE1100 AHSE1135 AHSE1155 the Mind AHSE1199 AC313; AC AC328	ndation Hist of Tech Digital Eye Hentity of O2 Topic: 318; AC326;	ENGR 2110, sec 03 Principles of Engineeri ng AC306	ENGR 2110 sec 04 Principle s of Engineeri ng AC309		Ope	n Meeting Tim	e 10:50-1	2:30pm	
12:30 PM												40 min BREAK									SCI 1310				-
	AHSE 4190 AHS	SCI 2210 Immunol	]							ENGR 1125 sec	AHSE 2170	FOR LUNCH								ENGR 1125 sec	Intro Chem LAB			ENGR 1330	ENGR 4190
1:30 PM	Capstone M 1:00- 3:40p	M 1- 3:40p; R 1-2:40p	ENGR 1125 ALL Sec Intro Sensors, Instru,			ENGR 3426 Mixed Analog Digital VLSI I	ENGR 3390 Fundame ntals of Robotics	ENGR 3520 Fnd Compute r Science	ENGR 2299: Spec Topics Design: Critical	01 Intro Sensors, Instru, Measure ment	Teaching and Learning 1- 3:40pm	AC413	MTH 3160 Complex Variables		ENGR 3710 Systems	SCI 1210 Principles of Modern Biology	SCI 1310 Intro to Chemistr Y	ENGR 3415 Digital Signal Processin	ENGR 3220 Human Factors and Interface	Intro Sensors, Instru, Measure ment	AC409			Fnd Machine Shop Operatio ns	SCOPE
2.10 DM	AC318	AC417; 406	Measure ment MH 120	2		AC304	AC128	AC326	Designer, Activist Engr AC213	1-3:10p AC428	MH373		AC109		AC328	AC417	AC326; AC409	AC304	Design AC213	1-3:10p AC428				1-5:00p	
3:20 PM			MTH 2133 SESS I Computu ational Bayesian	ENGR 3370 Controls	ENGR 2510 Softward Design	e AHSE 3599 Spec To Entrp: I Protect Inno	P Material and Solid	- MTH 1 1111 s All Sec Model Simula	111/ SCI tions ing and ition	]	<u></u>			-	ENGR 3290 and 4290 Affordabl	SCI1210 Principles of Modern Biology		MTH 1 1111 All Sec Model Simula	111/ SCI tions ing and tion	SUST22 Intro to	01		AHSE 1122 Wired Ensemble W 3:20-5p; F 10:50-	AC104	
5:00 PM	AHSE 3510 New Tech Ventures	)	Statistics AC326	AC304	AC128	Designs MH273	AC413	y MH12 AC206	0 AC204 AC209					ENGR 3599A Spec Topics: Programmi ng	e Design & Entrp 3:30- 6:30p	_ AC406		MH12 AC206	0 AC204 AC209	Sustain : Babso Olin, Wellesl Initiativ	ability n, ey re –	AHSE 3510 New Tech Ventures	12:30pm AC304, 305		
6:00 PM	MW 4:45- 6:30p Tomasso 101 at Babson													Languages T 4- 6:30pm AC326	AC213 and Babson					3:30-6:3 AC213	0	MW 4:45- 6:20p Tomasso 101 at Babson			
9																									
:00:00 PN																									

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AHSE					SCI					Math INTEGRATED OFFERING (colored discipline blendi					ored via ending)	Color Key- Offering Blocks				
Thursday									Friday								9.00 AM			
	SCI 1240ENGRENGRDesignin34103330g BetterJrugsComputeMechanircalLectureArchitectDesign		ENGR 3600 Topics in Bioengin eering	SCI 1121 Electricit y and Magnetis m		Quantitat ive Engineeri ng						2340 Dynami s	ENGR ENGR 3310 3599 Complex Transpor t Science Phenome		AHSE E 1199 - 01 2 AHS Fnd ( Topic : Media F Revolutio (	ENGR 2110, sec 01 Principles of	ENGR 2110 sec 02 Principles of	7.00 AM		
	AC	326 A(	e C318	AC128	AC417	AC328	OIE ENGR 1200 ALL Sections Design	MR 9- 12:30pm						AC328	AC417	AC326	n AC318	Engineeri ng AC306	Engineeri ng AC309	10:40 AM
					MTH 2220 Linearity II	Nature 9:50- 12:30pm MH120; AC204	AC113	ENGR 3230 Investiga ting Normal: Adaptive			SCI 1410 - B1 Materials Science and Solid State		SCI 2050 Art of Approxi mation	MTH 2110-01 Discrete Math	AHS Foundat AHSE1100:His AHSE1122: W AHSE1135: Di AHSE1155: Id Brain	on Topics t of Tech ired Ensemble gital Eye entity Mind &	ENGR 2110, sec 03 Principles of	ENGR 2110 sec 04 Principles of	10:50 AM	
						AC328	AC206 AC209		and Assistive Tech AC213			Chemistry 10:50a- 2:15p 40 min BREAK		AC109	AC417	AHSE1199-02 AC304; AC305 AC318; AC326	Topic: ; AC313; ; AC328	Engineeri ng AC306	Engineeri ng AC309	12:30 PM
ENGR 1125 sec	SCI 2210 Immunol									ENGR 1125 sec	]	FOR LUNCH								
03 Intro Sensors, Instru, Measure ment	ogy M 1- 3:40p; R 1-2:40					ENGR 3426 Mixed Analog Digital VLSI I	ENGR 3390 Fundame ntals of Robotics	ENGR 3520 Fnd Compute r Science	ENGR 2299: Spec Topics Design: Critical	04 Intro Sensors, Instru, Measure ment		AC413	MTH 3160 Complex Variables	SCI 121 Principl s of Modern Biology	0 ENGR 3710 Syster	ns	SCI 1310 Intro to Chemistr Y	ENGR 3415 Digital Signal Processin	ENGR 3220 Human Factors and Interface	1:30 PM
1-3:10p AC428	AC417; 406					AC304	AC128	AC326	Designer, Activist Engr AC213	1-3:10p AC428			AC109	AC417	AC328	3	AC326; AC409	AC304	Design AC213	3:10 PM
SCI1240 Designing Better Drugs LAB	MTH 2133 SESS I Computa tional	ENGR 3370 Controls	ENGR 3370 AHSE 3599 SCI 1410- 01 ENGR 2510 MTH 1111/SCI 1111   Controls Spec Top Entrp: IP Protectn ENGR 3250 Materials Science Integrate Software Design All Sections Modeling and Simulation						3:20 PM											
	Bayesian Statistics AC326	AC304	Designs MH273	d Produc Design 3:30- 6:30p	t State Cher AC4	nistry 13	AC12	MH12 AC206	0 AC204 5 AC209	"Do Something" Dedicated Time								5:00 PM		
AC406 all 3 campuse ; when a Olin AC213			n: es at															6:00 PM		
AHSE 0112 Olin																		V		
6:45-9pm 304 + 305 + 318																		9:00:00 PM		

Fall 2016 Course Offerings.xlsx

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TENTATIVE SPRING 2017 Course Listing											
Discipline	Course Number	Course Title	Credits	Staffing	Comments						
AHS	AHSE0112	Olin Conductorless Orchestra	1	Dabby							
AHS	AHSE2112	Six Books that Changed the World	2	Martello							
AHS	AHSE2114	Science Fiction and Historical Context	2	Martello							
AHS	AHSE2199	Special Topics in AHS: Constructing and Performing the Self	4	Adler							
AHS	AHSE2199	Special Topics in AHS: Digital Documentary Storytelling	2	Vitols							
AHS	AHSE2199	Special Topics in AHS: Virtualities: An Introduction to Video Gaming History and Theory	2	Vitols							
AHS	AHSE3190	Arts Humanities Social Sciences Preparatory Workshop (AHS Prepstone)	1	Epstein							
AHS	AHSE4190	Arts Humanities Social Sciences Capstone	4	Epstein							
Design	ENGR2250	User Oriented Collaborative Design	4	Hendren et al							
Design	ENGR3210	Sustainable Design	4	Linder	Design Depth Option						
Design	ENGR3290/ ENGR4290	Affordable Design and Entrepreneurship	4	Linder et al	Design Depth Option-OR- CAPSTONE						
Design	ENGR3299	Design Depth: TBD	4	Staff	Tentative						
Design	ENGR3299	Special Topics in Design: Educational Design Studio	4	Strong	Design Depth Option						
E!	AHSE1515	Products and Markets	4	Neeley et al							
E!	AHSE4590	Entrepreneurship Capstone	4	Neeley	Offered in experimental mode to reenvision E! at Olin. Will not require concentration to be complete prior to enrolling.						
E:Bio	ENGR3620	Cellular Bioengineering	4	Sarang- Sieminski	This course can count as an advanced Biology requirement.						
E:C	ENGR2510	Software Design	4	Millner; Steele							

TENTATIVE SPRING 2017 Course Listing										
Discipline	Course Number	Course Title	Credits	Staffing	Comments					
E:C	ENGR3525	Software Systems	4	Downey; Hill						
E:C	ENGR3599	Computing Elective: TBD	4	Steele						
E:C	ENGR520	Foundations of Computer Science	4	Pucella						
E:Robo	ENGR3392	Robotics Systems Integration	4	Bennett						
E:Robo	ENGR3590	A Computational Introduction to Robotics	4	Ruvolo; Geddes						
ECE	ENGR2410	Signals and Systems	4	Mur- Miranda						
ECE	ENGR2420	Introduction to Microelectronic Circuits with Laboratory	4	Minch						
ECE	ENGR3420	Intro to Analog and Digital Communication	4	Govindas amy						
ENGR	ENGR1330	Fundamentals of Machine Shop Operations	4	Andruskie wicz						
ENGR	ENGR2330	Introduction to Mechanical Prototyping	4	Barrett						
ENGR	ENGR3110	Elecanisms	4	Hoover; Minch	Satisfies ME or ECE Advanced Elective					
ENGR	ENGR3199	Special Topics in Engineering: Designing Resources for Empowerment and Making (DREAM)	4	Millner						
ENGR	ENGR4190	Senior Capstone Program in Engineering (SCOPE)	4	Sarang- Sieminski et al						
INT	AHSE2141/ ENGR2141	Engineering For Humanity	2+2	Ben-Ur; Lynch						
INT	AHSE2199/ SCI1210	Intersection of Biology, Art and Technology	4+4	Donis- Keller	Biology Foundation					
INT	AHSE2199/ SCI1310	Chemistry in Context	4+4	Hersey; Martello	Mat Sci/Chem Foundation					
INT	CIE2016A	Qualitative Engineering Analysis I	8	Govindas amy et al	FirstYr Experiment					

TENTATIVE SPRING 2017 Course Listing											
Discipline	Course Number	Course Title		Staffing	Comments						
INT	SUST3301	Sustainability Synthesis	4	Linder							
Math	MTH2110	Discrete Math	4	Staff	Highly Tentative						
Math	MTH2131/ ENGR3531	Data Science	4	Downey	Satisfies Prob/Stat Requirement						
Math	MTH2132/ SCI2032	Bayesian Inference and Reasoning	4	Mahajan	Satisfies Prob/Stat Requirement						
Math	MTH2130	Probability and Statistics	2	Staff	Satisfies Prob/Stat Requirement						
Math	MTH2210	Linearity I	4	Hoffman; Mur- Miranda							
Math	MTH3120	Partial Differential Equations	4	Hoffman	Advanced Mathematics in ME and/or other major						
ME	ENGR2320	Mechanics of Solids and Structures	4	Staff							
ME	ENGR2350	Thermodynamics	4	Storey							
ME	ENGR3XXX	ME advanced elective: TBD	4	Lee							
Science	ENGR3899	Special Topics in Engineering: Materials to Enable Renewable Energy	4	Christians on	Tentative						
Science	SCI1130	Mechanics	4	Holt	Physics Foundation Option						
Science	SCI1240	Designing Better Drugs with Laboratory	4	Pratt	Biology Foundation						
Science	SCI1410	Materials Science and Solid State Chemistry	4	Christians on	Mat Sci/Chem Foundation						
Science	SCI2130	Quantum Physics	4	Holt	Physics Foundation Option						