

Spring 2020 Supplement and Course Offerings List

Vol18no2.3 (16Jan2020)

Information Contained in this Document

- 1) Course Tips & Info and Catalog Supplement (courses new to catalog for 2019-20 or special topics)
- 2) Cross-Registration Deadlines
- 3) Course Offerings List (you can also search here: [Course Search](#))
- 4) Course Offerings Grid

General Registration Instructions and FAQs, please visit our Registrar's [web page](#).

Registration Timelines for Add; Drop and Pass/No Credit; Withdraw

Session	Add	Drop and Pass/No Credit	Withdraw
Full Semester (Jan 22 – May 1)	February 4, 2020	April 2, 2020	May 1, 2020
Session I (Jan 22 – Mar 10)	January 28, 2020	February 21, 2020	March 10, 2020
Session II (Mar 12 – May 1)	March 25, 2020	April 17, 2020	May 1, 2020

Cross-Registration Deadlines

	Babson	Brandeis	Wellesley
Cross-registration open period	11/04/2019 – 1/27/2020 at 4:30 p.m.	12/04/2019 – 1/27/2020	11/11/2019 – 2/07/2020 at 11 p.m.
First day of classes	1/21/2020	1/13/2020	1/27/2020
Drop deadline	1/27/2020 at 4:30 p.m.	3/02/2020	2/21/2020 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 September. Below is a summary:

We ARE offering:

- Controls
- Digital Power Conversion (ECE elective)
- Intro to Sustainability
- Environmental Consulting at Olin (You choose Entrepreneurship Elective or Design Depth!)

We are NOT offering the following courses in the Spring 2020 semester:

- Engineering for Humanity
- AHSE Elective in Education
- Launch (if interested, please see Jason Woodard, Lee Zamir or Linda Canavan)
- Cryptocurrency (See Steve Matsumoto if you want to learn more about future offerings)
- Security and Privacy (See Steve Matsumoto if you want to learn more about future offerings)
- Sustainability Synthesis (See Linda Canavan)

Curriculum Changes – Quantitative Engineering Analysis (QEA) and Engineering System Analysis (ESA)

- Quantitative Engineering Analysis (QEA) 1a and 1b: This interdisciplinary engineering foundation course is in a finished format. It is required for students entering Olin in 2019 and is offered in the spring of the first year as two sequential four credit courses. The updated descriptions are in this booklet and in [Olin's College Catalog](#).
- Quantitative Engineering Analysis 2 will be offered in the fall and will be a single 4 credit course.
- For students who entered in 2018 or 2019 and who require course content in **Dynamics** (ME, others as self-designed) or in **Signals** (ECE, others as self-designed), enrollment in the new **Engineering Systems Analysis** (ESA) course is required. For students who entered prior to 2018, these courses may be used as designated alternatives for Dynamics and Signals and Systems. Additional information about each course can be found in the New and Special Topics to Note section.

3 Colleges BOW Sustainability Certificate – spring/fall order for intro and capstone courses

- The BOW Sustainability Certificate will begin offering intro in the spring and the synthesis in the fall semesters. For detailed information, please visit the 3 Colleges BOW site here: <https://www.bow3colleges.org/sustainability-certificate>
- This new format should allow more first year and sophomore students to begin the program earlier.

What does the category of Cross-listed mean? How do I choose my course?

Cross-listing is a term associated with two distinct course numbers for a single academic activity. The activity can be defined under two topics depending on what aspect of the course content a student focuses on during their enrollment. To this end, the student elects the path at the beginning of the course (no later than the last day to add) by selecting the appropriate course number.

During the spring semester we have two such offerings ... Environmental Consulting at Olin (AHSE2599 or ENGR3299) and Biomimicry (ENGR3235 or SCI2235). To enroll in these courses, you decide which type of credit you want/need. For example, in ECO, AHSE is for intermediate entrepreneurship credit, and ENGR is for design depth credit. For Biomimicry, ENGR is for design depth credit, and SCI is for advanced science credit.

Questions? ... email us, registrar@olin.edu

Capstone Registrations – Affordable Design and Entrepreneurship and SCOPE

- For students interested in a capstone experience with ADE as their capstone, the process for registration has changed. Please select ENGR4290 and add yourself to the waitlist **if you are a first time capstone enrollee**. For students who will be completing their ADE capstone in the spring, you will be preregistered by the Registrar's Office.
- The waitlists for capstone will be managed by the faculty involved in the capstone programs. If you are not selected for ADE capstone as a 2nd semester junior you will have an option to do the design depth (if you have not taken it before).
- Please DO NOT waitlist yourself for ENGR4290 and also enroll yourself in ENGR3290 (design depth).

Waitlists for Courses with Two Numbers

If you want to join a waitlist for Data Science (ENGR3531 and MTH2131) or Neurotechnology, Brains and Machines (ENGR3635 and MTH2135) or Six Microbes that Changed the World (AHSE2150 and SCI1250), please email registrar@olin.edu after your registration period. We will maintain a waitlist as the system does not allow waitlists for connected courses.

Degree requirements are outlined in the course catalog: <http://olin.smartcatalogiq.com/2019-20/Catalog>

Looking for a visual representation? Check out Olin's [Curriculum Map](#)

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.

New and Special Topics Courses to Note

AHSE2199-01: Special Topics in Arts, Humanities and Social Sciences

Change the World: Personal Values, Global Impacts, and Making an Olin GCSP

Instructors: Alison Wood, Rob Martello

Credits: 4 AHS

As individuals and engineers, how should we pose ethical questions and prepare to advocate for the values that we hold dear? How might we start to understand and react to larger global problems, causes, challenges, and opportunities that surround us? And how should Olin modify its curriculum and build a Grand Challenge Scholar's Program (GCSP) to help our students identify and act upon their values? In this course, students will serve as partners, helping the instructors identify and discuss readings, experiment with projects and in-class activities, and design personalized manifestos. In addition, anyone who completes this course will (if they wish) receive the Grand Challenge Scholar designation. The course will use the "Experimental Grading" system to allow us to focus on detailed formative feedback throughout the semester. Students will have plenty of leeway to make progress on their own goals and explore their own interests, while the class as a whole will work together to understand our global context and build something great for Olin. Join us this spring, and let's make the world a better place!

AHSE2199A-01: Special Topics in Arts, Humanities and Social Sciences

Identity from the Mind and the Brain, Advanced

Instructor: Jonathan Adler

Credits: 4 AHS

Hours: 4-0-8

Perhaps the most fundamental question any developing individual asks himself/herself is: Who am I? The ways we answer this question have evolved over the course of history as the dominant ways of knowing (epistemologies) have shifted. Indeed, the question of how we come to know ourselves has captivated Western scholars since the days of Descartes, but a look at the last fifty to sixty years has also seen enormous changes. Many people invoke psychological and philosophical

perspectives in describing their identity, focusing on their personality, their developmental history, and their place in society. But the explosion of neurobiological research has introduced a new and viable outlook: explaining identity at the chemical and electrical level of the brain. There is good reason to think that these different perspectives on identity are mutually exclusive and this tension will underlie everything we discuss in this interdisciplinary course. Indeed, when it comes to a topic as fundamental to human existence as identity, it is absolutely essential to wonder not only "who am I?" but to also ask "how do I know?" In this course, we will approach the question of identity from multiple perspectives, including psychology, postmodern philosophy, and neuroscience. In the process, we will critically examine not only the conception of identity that each perspective supports, but also the assumptions and limitations of each epistemology.

AHSE2599-01: Special Topics in Business and Entrepreneurship – OR –
ENGR3299-01: Special Topics in Design Engineering

Environmental Consulting at Olin

Instructors: Caitrin Lynch, Carrie Nugent

Credits: 4 AHS – OR – 4 ENGR

Registration note: may be taken as Entrepreneurship elective OR as Design Depth.

Prerequisites: Products and Markets (AHSE1515) if taking as E! elective; UOCD (ENGR2250) if taking as Design Depth.

In this course, we will work to reduce the carbon emissions from a major greenhouse gas polluter-- Olin College. You will work as consultants to different Olin departments, learning about their challenges and implementing solutions to reduce emissions. In this course, you will learn about strategies to enact positive change-- strategies that you can take with you into the larger world for the rest of your life.

ENGR2199-01: Special Topics in Engineering:

Engineering Systems Analysis

ENGR2199A-01: Special Topics in Engineering:

Engineering Systems Analysis: Dynamics

ENGR2199B-01: Special Topics in Engineering:

Engineering Systems Analysis: Signals

The **Engineering Systems Analysis** courses are designated alternatives for ENGR 2410 Signals and Systems or ENGR 2340 Dynamics.

- These courses are scheduled so that students may take all three courses (for a total of 6 credits).
- ME majors must take both ENGR 2199 and 2199a;
- ECE majors must take both ENGR 2199 and 2199b, to satisfy their respective core course requirements.
- Engineering majors may take ENGR 2199 alone or with one or both of ENGR 2199a/b as part of their plan of study or for engineering credit.

ENGR2199-01: Special Topics in Engineering:

Engineering Systems Analysis

Instructors: Diana Dabby, Siddhartan Govindasamy, Chris Lee

Credits: 2 ENGR

Hours: 4-0-8

Registration notes: Session I. Required course for ME and ECE students.

Engineering Systems Analysis involves building, developing, and practicing process-based quantitative analysis skills in the broad area spanning linear analysis of engineering systems. Concepts such as linearization, equilibrium, and stability will be applied to study dynamic response of electrical and mechanical systems in both the time and frequency domains through time-integration, transfer function, and state-space analysis. Ideas from feedback control are introduced. Coursework and projects will involve examples from robotics, communication systems, or aircraft/spacecraft.

ENGR2199A-01: Special Topics in Engineering:

Engineering Systems Analysis: Dynamics

Instructors: Diana Dabby, Siddharta Govindasamy, Chris Lee
Credits: 2 ENGR
Hours: 4-0-8

Pre-requisite: ENGR 2199 Engineering Systems Analysis

Registration notes: Session II. Required for ME majors. The combination of ENGR2199-01 and ENGR2199A-01 is a designated alternative for ENGR2340 Dynamics.

This half-course extends material from the first half-semester to focus on the derivation, analysis, and simulation of translational and rotational equations of motion for particles and rigid bodies in 3D using physics-based models.

ENGR2199B-01: Special Topics in Engineering:

Engineering Systems Analysis: Signals

Instructors: Diana Dabby, Siddharta Govindasamy, Chris Lee
Credits: 2 ENGR
Hours: 4-0-8

Pre-requisite: ENGR 2199 Engineering Systems Analysis

Registration notes: Session II. Required for ECE majors. The combination of ENGR2199-01 and ENGR2199B-01 is a designated alternative for ENGR2410 Signals and Systems.

As a half-course, Engineering Systems Analysis: Signals extends material from the first half-semester to focus on fundamental concepts from linear systems such as frequency response, impulse response, and system identification. The course introduces sampling and aliasing, as well as discrete-time linear operators, transforms, and filtering.

ENGR3199: Special Topics in Engineering:

Satellite Systems and Consulting Business Practices

Instructor: Whitney Lohmeyer
Credits: 4 ENGR
Hours: 4-0-8

Registration notes: ECE elective, ME elective

Prerequisite: Matlab

This course provides students with the opportunity to learn about the multifaceted engineering discipline of satellite systems through the experience of a semester-long, customer-client consulting simulation. The primary technical areas covered are orbital mechanics and satellite communications design (link budgets, availability, propagation impacts). On the first day of class, students will begin building their orbit propagator in Matlab, which they will expand upon (including aspects of communications design) throughout the course of the semester. To gain insight into the policy and regulatory hurdles the satellite industry faces, students will also dive into orbital debris mitigation (understanding the legalities, or lack thereof, of launching and deorbiting spacecraft) and spectrum management (licensing spacecraft through the FCC and the International Telecommunications Union (ITU)). Throughout the semester, students will be given assignments in the form of consulting arrangements for which they have to negotiate their hourly rate, invoice their customer, and pay estimated quarterly taxes. The course will conclude with a satellite communications system design project that will require use of their orbit propagator, industry tools like STK and NASA's Orbital Debris Assessment software and build upon each of the lessons learned throughout the course.

ENGR3499-01: Special Topics in Electrical and Computer Engineering:

Digital Power Conversion

Instructor: Beat Arnet
Credits: 4 ENGR
Hours: 0-3-3

Registration note: ECE Elective.

Prerequisite: Basic understanding of a programming language and electrical circuits

In this course, the student will learn to master the flow of electrons by means of embedded controls and power electronics. The theory is taught in a hands-on fashion through simulation-based analysis and lab work. A wide range of topics is covered, including basic power conversion topologies, architecture of interrupt-driven embedded control software, basic control algorithms, as well as debugging and testing techniques. Students will work as teams to control a low-voltage electric drive, similar to what propels electric scooters and bicycles. While the primary hardware building blocks of this course are off the shelf evaluation boards, the class does offer, to the motivated student, room for designing custom circuits boards and custom mechanical parts.

ENGR3599-01: Special Topics in Computing:

Programming Languages

Instructor: Riccardo Pucella

Credits: 4 ENGR

Registration note: E:C elective

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.

ENGR3599A-01: Special Topics in Computing:

Data Structures and Algorithms

Instructor: Alice Paul

Credits: 4 ENGR

Hours: 4-0-8

Registration note: E:C elective

Co-requisite: Software Design (ENGR2510) or permission of instructor

In this course, you will be introduced to the common data structures and algorithms that will enable you to grow as a programmer and problem solver. You will learn how to do mathematical analysis of data structures and algorithms, including run time analysis and proof of correctness. But you will also be practicing how to implement these concepts and evaluating performance in practice. By the end, you should feel comfortable approaching a computational problem from start to finish: writing pseudocode, choosing appropriate data structures, designing algorithms, and analyzing your program.

ENGR3599B-SL: Special Topics in Computing:

Advanced Algorithms

Instructors: Student teachers; Alice Paul, advisor

Credits: 4 ENGR

Advanced Algorithms will provide an in-depth look into certain advanced algorithms that are beyond the scope of a traditional data structures and algorithms course. The topics this course would cover are: network flow, linear programming, NP-completeness, heuristic algorithms, integer programming, SAT, and approximation algorithms. Throughout this course students will: develop and iterate on an approach to solving software engineering problems, learn to communicate and collaborate on advanced algorithm application and implementation, understand why specific advanced algorithms are used, and effectively and efficiently solve problems by using advanced algorithms.

ENGX2000-01: Quantitative Engineering Analysis 1a

Instructors: John Geddes, Kelsey Houston-Edwards, Paul Ruvolo, Mark Somerville, Linda Vanasupa

Credit: 4 (content & credit distribution breakdown: 2 MTH, 1 SCI, 1 ENGR)

Hours: 4-0-8

Prerequisites: ENGR1125; MTH1111/SCI1111; ENGR1200

Registration note: Session I. General degree requirement; students must enroll in both ENGX2000 and ENGX2001.

ENGX2001-01: Quantitative Engineering Analysis 1b

Instructors: Jeff Dusek, John Geddes, Paul Ruvolo, Mark Somerville, Linda Vanasupa

Credit: 4 (content & credit distribution breakdown: 2 MTH , 2 SCI)

Hours: 4-0-8

Registration notes: Session II. General degree requirement; students must enroll in both ENGX2000 and ENGX2001.

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 will 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 these classes, 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.

SCI1420-01: Metals, Mining, and the Environment

Instructor: Jon Stolk

Credit: 4 SCI

Hours: 6-0-6

Registration note: Materials Science Foundation Option

This course explores materials science through the lens of metallic materials and their environmental and social impacts. From iron and aluminum in mechanical structures, to cobalt and rare earth metals in electronics and renewable energy applications, today's technologies rely on metals and alloys for their unique physical and chemical properties. Metals are part of a larger technological system, however, with complex social, environmental, political, economic, and ethical implications. Through a series of projects, students in this class will explore the technical processing, microstructure, and behaviors of metallic materials, while researching and discussing sustainability issues related to mining operations, raw material processing, and recycling and disposal. We will critically examine the social and environmental costs of the metals industry and metallic products, and consider our professional and ethical responsibilities as scientists, engineers, designers and global citizens to address larger problems or initiate positive change. The course takes place in a studio-laboratory setting, where teams will implement self-directed project plans guided by their own interests and goals, apply a range of materials testing and analytical techniques, and produce a range of project deliverables that reflect an interdisciplinary understanding of metallic materials and their impacts.

Other Opportunities

Libraria Group Independent Study

Instructor: Tom Pearson: 4 AHS

Registration notes: contact instructor and follow paper procedure to register for AHSE0177. See <http://olin.smartcatalogiq.com/2019-20/Catalog/Programs-of-Study-and-Degree-Requirements/Other-Academic-Programs-and-Opportunities/Independent-study-and-research> for ISR policy and <http://www.olin.edu/academic-life/student-affairs-resources/registrar/independent-study-research/> for procedure guidelines.

In this group independent study, 4-6 students will partner with Tom Pearson to create a wire-frame design, object and ephemera, environmental design, and performance activations of a new project iteration of *Libraría*, a work-in-progress at Olin. *Libraría* is matrix of digital and analog expressions of creative force from the night cinema of dreams; their collective and colloquial unconscious connections points through the rhizomatous web of psychic back-portals; multi-media consciousness; and shape-shifting physical manifestations of form, permanence, and loss. Students will help conceive of new ways to engage an audience through an immersive and experiential design that springs forth from a card catalog of dreams and their expressions inside a library within a library (Tom's office and the surrounding areas on the lower level of the library at Milas Hall) — which will then be offered to the Olin community at large and as the spring board for the project once it leaves Olin. More info on *Libraría* and its previous iterations can be found at <https://thirdrailprojects.com/libraria>

Area	Course #	Sec #	Course Title	Instructor	Time	Location	Credits	Enroll Limits	Registration Notes	Curriculum Notes
AHS	AHSE0112	01	AHSE0112: The Olin Conductorless Orchestra	Dabby, Diana	T 7:30-9:00pm R 6:30-8:00pm	AC318	1	n/a		AHS Elective
AHS	AHSE2131	01	AHSE2131: Responsive Drawing and Visual Thinking	Donis-Keller, Helen	TF 10:50-12:30pm	AC313	4	12	Waitlist Available	AHS Elective
AHS	AHSE2199	01	AHSE2199: Special Topics in Arts, Humanities, Social Sciences: Personal Values, Global Impacts, and Making an Olin GCSP	Martello, Rob; Wood, Alison	TF 1:30-3:10pm	AC417	4	30	Waitlist Available	AHS Elective
AHS	AHSE2199A	01	AHSE2199A: Special Topics in Arts, Humanities, Social Sciences: Identity from the Mind and the Brain, Advanced	Adler, Jon	MR 1:30-3:10pm	AC128	4	25	Waitlist Available	AHS Elective
AHS	AHSE3190	01	AHSE3190: Arts Humanities Social Sciences Capstone Preparatory Workshop	Epstein, Gillian	n/a	n/a	1	n/a		AHS Capstone Prereq
AHS	AHSE4190	01	AHSE4190: Arts Humanities Social Sciences Capstone Project	Epstein, Gillian	M 9:00-12:30pm	Library	4	30		AHS Capstone
CAPSTONE	ENGR4190	01-14	ENGR4190: SCOPE: Senior Capstone Program in Engineering	Ferzoco, Alessandra; Hersey, Scott; Sarang-Sieminski, Alisha; Stein, Lynn	W 9:00-6:00pm	varied	4	75	please enroll in the same section you are in for FALL 2019	Capstone
CAPSTONE	ENGR4290	01	ENGR4290: Affordable Design and Entrepreneurship Engineering Capstone	Graeff, Erhardt; Hersey, Scott; Johansen, Elizabeth; Linder, Ben; Taha, Kofi	T 3:30-6:30pm R 3:30-5:30pm	Weissman Foundry	4	TBD	Register for this course as a capstone; not a design depth	Capstone
Crosslisted	AHSE2599 or ENGR3299	01	AHSE2599_or_ENGR3299: Environmental Consulting at Olin	Lynch, Caitrin; Nugent, Carrie	T 10:50-12:30pm F 9:00-12:30pm	AC213	4	28	Register for AHSE2599 for Entrepreneurship credit or ENGR3299 for Design Depth credit; Waitlist Available	E! Elective or Design Depth
Crosslisted	ENGR3235 or SCI2235	01	ENGR3235_or_SCI2235: Biomimicry	Huang, Jean; Linder, Ben	MR 10:50-12:30pm	AC213	4	30	Register for ENGR3235 for Design Depth credit or SCI2235 for Science credit; Waitlist Available	Design Depth OR Adv Science
DSN	ENGR2250	01	ENGR2250: User-Oriented Collaborative Design	Adler, Jon; Bloomer, Sarah; Hendren, Sara; Sauder, Tim; Wood Allison; Zastavker, Yevgeniya	MR 9:50-12:30pm	AC204 MH120	4	32	Waitlist Available	Design Foundation
DSN	ENGR2250	02	ENGR2250: User-Oriented Collaborative Design	Adler, Jon; Bloomer, Sarah; Hendren, Sara; Sauder, Tim; Wood Allison; Zastavker, Yevgeniya	MR 9:50-12:30pm	AC206 MH120	4	32	Waitlist Available	Design Foundation
DSN	ENGR2250	03	ENGR2250: User-Oriented Collaborative Design	Adler, Jon; Bloomer, Sarah; Hendren, Sara; Sauder, Tim; Wood Allison; Zastavker, Yevgeniya	MR 9:50-12:30pm	AC209 MH120	4	32	Waitlist Available	Design Foundation
DSN	ENGR3290	01	ENGR3290: Affordable Design and Entrepreneurship	Graeff, Erhardt; Hersey, Scott; Johansen, Elizabeth; Linder, Ben; Taha, Kofi	T 3:30-6:30pm R 3:30-5:30pm	Weissman Foundry	4	15	Register for this course as design depth; Waitlist Available	DSN Depth
E:C	ENGR2510	01	ENGR2510: Software Design	Graeff, Erhardt; Matsumoto, Steve; Milliner, Amon	TF 10:50-12:30pm	AC318 AC326	4	54	Waitlist Available	E:C Requirement and ECE Requirement
E:C	ENGR3525	01	ENGR3525: Software Systems	Downey, Allen	TF 1:30-3:10pm	AC326	4	40	Waitlist Available	E:C Requirement

Area	Course #	Sec #	Course Title	Instructor	Time	Location	Credits	Enroll Limits	Registration Notes	Curriculum Notes
E:C	ENGR3599	01	ENGR3599: Special Topics in Computing: Programming Languages	Pucella, Riccardo	R 1:30-4:00pm	AC304	4	30	Waitlist Available	E:C Elective
E:C	ENGR3599A	01	ENGR3599A: Special Topics in Computing: Data Structures and Algorithms	Paul, Alice	MR 1:30-3:10pm	AC309	4	25	Waitlist Available	E:C Elective
E:C	ENGR3599B	SL	ENGR3599B: Special Topics in Computing: Advanced Algorithms	Student Led Team (Paul, Alice)	TF 1:30-3:10pm	AC318	4	24	Student Led Course; Waitlist Available	E:C Elective
E:Robo	ENGR3390	01	ENGR3390: Fundamentals of Robotics	Barrett, Dave	TF 9:00-10:40am	AC109	4	30	Waitlist Available	E:Robo One of N Requirement
E:Robo	ENGR3392	01	ENGR3392: Robotics Systems Integration	Barrett, Dave; Dusek, Jeff	TF 1:30-3:10pm	AC109	4	30	Waitlist Available	E:Robo Requirement
ECE	ENGR2420	01	ENGR2420: Intro Microelectronic Circuits with laboratory	Minch, Brad	TF 9:00-10:40am W 1:00-2:30pm LAB	AC309	4	28	Waitlist Available	ECE Requirement
ECE	ENGR3499	01	ENGR3499: Special Topics in Electrical and Computer Engineering: Digital Power Conversion	Arnet, Beat	T 3:20-6:00pm	AC304	4	24	Waitlist Available	ECE Elective
ENGR	ENGR1330	01	ENGR1330: Fundamentals of Machine Shop Operations	Andruskiewicz, Bruce	W 1:00-5:00pm	AC104	4	6		Elective
ENGR	ENGR2199	01	ENGR2199: Special Topics in Engineering: Engineering Systems Analysis,	Dabby, Diana; Govindasamy, Siddhantan; Lee, Chris	TF 10:50-12:30pm	AC109 AC113	2	48	Session I	Required for ECE and ME Majors
ENGR	ENGR2199A	01	ENGR2199A: Special Topics in Engineering: Engineering Systems Analysis: Dynamics	Dabby, Diana; Govindasamy, Siddhantan; Lee, Chris	TF 10:50-12:30pm	AC328	2	48	Session II	Required for ME Majors
ENGR	ENGR2199B	01	ENGR2199B: Special Topics in Engineering: Engineering Systems Analysis: Signals	Dabby, Diana; Govindasamy, Siddhantan; Lee, Chris	TF 1:30-3:10pm	AC304	2	32	Session II	Required for ECE Majors
ENGR	ENGR3110	01	ENGR3110: Elecanisms	Hoover, Aaron; Minch, Brad	M 3:20-5:00pm R 3:20-6:00pm	AC306	4	25	Waitlist Available	ECE, ME Elective
ENGR	ENGR3199	01	ENGR3199: Special Topics in Engineering: Satellite Systems and Consulting Business Practices	Lohmeyer, Whitney	W 3:20-6:00pm	AC318	4	21		ECE, ME Elective
ENTRP	AHSE1515	01	AHSE1515: Products and Markets	Chachra, Debbie; Lynch, Caitrin; Pratt, Joanne; Woodard, Jason	MR 1:30-4:10pm	AC318 AC326 AC328 AC428 MH120	4	90		E! Foundation
ENTRP	AHSE2515	01	AHSE2515: Iterate	Zamir, Lee	T 3:20-6:00pm	AC318	2	18	Session I; Waitlist Available	E! Elective
ENTRP	AHSE2515A	01	AHSE2515A: Iterate	Zamir, Lee	T 3:20-6:00pm	AC318	2	18	Session II; Waitlist Available	E! Elective

Area	Course #	Sec #	Course Title	Instructor	Time	Location	Credits	Enroll Limits	Registration Notes	Curriculum Notes
Interdisciplinary	ENGR3531 / MTH2131	01	ENGR3531_and_MTH2131: Data Science	Downey, Allen	MR 1:30-3:10pm	AC417	2+2	25	Waitlist Available	Probability/Statistics
Interdisciplinary	ENGX2000	01	ENGX2000: Quantitative Engineering Analysis Ia	Geddes, John; Houston-Edwards, Kelsey; Ruvolo, Paul; Somerville, Mark; Vanasupa, Linda	MR 9:00-12:30pm	AC109 AC113 AC128	4	90	Session I	Requirement
Interdisciplinary	ENGX2001	01	ENGX2001: Quantitative Engineering Analysis Ib	Dusek, Jeff; Geddes, John; Ruvolo, Paul; Somerville, Mark; Vanasupa, Linda	MR 9:00-12:30pm	AC109 AC113 AC128	4	90	Session II	Requirement
Interdisciplinary	MTH2135 / ENGR3635	01	MTH2135_and_ENGR3635: Neurotechnology, Brains and Machines	Michalka, Sam	W 3:20-6:00pm	AC428	2+2	36	Waitlist Available	Probability/Statistics; E:Bio option
Interdisciplinary	SCI1250 / AHSE2150	01	SCI1250_and_AHSE2150: Six Microbes that Changed the World with Laboratory	Huang, Jean; Martello, Rob	TF 9:00-12:30pm	AC417 Lab: AC406	4+4	36	Waitlist Available	BIO Foundation & AHS Elective
ME	ENGR2320	01	ENGR2320: Mechanics of Solids & Structures	Tow, Emily	TF 9:00-10:40am W 9:00-10:00am	AC328	4	36	Extra lecture session on Wednesday AM; Waitlist Available	ME Requirement
ME	ENGR2330	01	ENGR2330: Introduction to Mechanical Prototyping	Faas, Daniela	TF 1:30-3:10pm	AC128	4	38		Elective
ME	ENGR2350	01	ENGR2350: Thermodynamics	Ferzoco, Alessandra	TF 1:30-3:10pm	AC309	4	32	Waitlist Available	ME Requirement
ME	ENGR3370	01	ENGR3370: Controls	Barragan, Patrick	T 7:00-10:00pm	AC304	4	24		ME, ECE Elective; E:Robo, mechanical course option
MTH	MTH3120	01	MTH3120: Partial Differential Equations	Houston-Edwards, Kelsey	MR 1:30-3:10pm	AC109	4	30	Waitlist Available	Advanced Math
SCI	SCI1410	01	SCI1410: Materials Science and Solid State Chemistry: Materials and the Practice of Experimentation	Neal, Matt	TF 9:00-12:30pm	AC413	4	21		Materials Science Foundation Option
SCI	SCI1420	01	SCI1420: Metals, Mining, and the Environment	Stolk, Jon	MR 3:20-6:00pm	AC413	4	18	Waitlist Available	Materials Science Foundation Option
SUST	SUST2201	01	SUST2201: Intro to Sustainability	Stolk, Jon	W 3:00-6:00pm	AC417	4	15	Waitlist Available	2 AHSE; 2ENGR credits; Foundation Course for BOW Certificate
XADMIN	AWAY1000	01	AWAY1000: The Study Away Program	Administration	n/a	n/a	4	n/a	Enroll in this course if you will be studying away in the spring 2020 semester	
XADMIN	OIP1000	01	The Olin Internship Practicum I	Phelps	n/a	n/a	1	n/a	See Post Graduate Planning to Enroll	
XADMIN	OIP1001	01	The Olin Internship Practicum II	Phelps	n/a	n/a	1	n/a	See Post Graduate Planning to Enroll	

Color Key-Offering Blocks	ECE	ME	ENGR / DSN Courses	OIE or Genl Req											
	Monday			Tuesday			Wednesday								
9:00 AM	Session I: ENGX 2000: Quantitative Engineering Analysis Ia AC109 AC113 AC128	ENGR 2250 Sec 01, 02 & 03: User-Oriented Collaborative Design MR 9:50-12:30pm AC204 AC206 AC209 MH120	AHSE 4190: AHS Capstone Library	ENGR 2320: Mechanics Solids Structures TF 9-10:40am; W 9-10:00am (extra lect) AC328	ENGR 3390: Fundamentals of Robotics AC109	ENGR 2420: Intro MicroElectronic Circuits TF 9-10:40am Lab: W 1-2:30pm AC309	SCI 1410: Materials Science and Solid State Chemistry: Materials and Practice Experiment AC413	SCI 1250/AHSE 2150: Six Microbes that Changed the World w/ Lab AC417 AC406 (Lab)	ENGR 2320: Mechanics Solids Structures 9-10am AC328	SCOPE					
10:40 AM 10:50 AM	Session II: ENGX 2001: Quantitative Engineering Analysis Ib AC109 AC113 AC128	MR 9:50-12:30pm AC204 AC206 AC209 MH120		ENGR3235 or SCI2235: Biomimicry AC213	Session I: ENGR2199: Engr Systems Analysis (ESA) AC109 AC113 Session II: ENGR2199A: ESA: Dynamics AC328	AHSE 2131: Resp Drawing & Visual Thinking AC313	ENGR 2510: Software Design AC318 AC326	AHSE2599 or ENGR3299: Environmental Consulting at Olin T 10:50-12:30pm F 9-12:30pm AC213	Open Meeting Time						
12:30 PM															
1:30 PM	AHSE 1515: Products & Markets MR 1:30-4:10p AC318 AC326 AC328 MH120	MTH 2131 & ENGR 3531: Data Science AC417	AHSE 2199A: Spec Top AHS: Identity Mind & Brain AC128	MTH 3120: Partial Differential Equations AC109	ENGR 3599A: Spec Top in Computing: Data Structures and Algorithms AC309	Session II: ENGR2199B: ESA: Signals AC304	ENGR 2350: Thermodynamics AC309	ENGR 2330: Mechanical Prototyping AC128	ENGR 3525: Software Systems AC326	ENGR 3392: Robotics Systems Integration AC109	ENGR 3599B-SL: Spec Topics in Computing: Advanced Algorithms AC318	AHSE 2199: Spec Top AHS: Change the World: Personal Values AC417	ENGR 2420: Intro MicroElectronic Circuits Lab: W 1-2:30pm AC309	ENGR 1330: Fnd Machine Shop Oper 100-5:00p AC104	ENGR 4190
3:10 PM 3:20 PM				ENGR 3110: Elecanisms M 3:20-5:00pm; R 3:20-6:00pm AC306	SCI 1420: Metals, Mining & the Environment AC413	Session I: AHSE 2515: Iterate AC318 Session II: AHSE 2515A: Iterate AC318	ENGR 3290 & 4290: Affordable Design & EI T 3:30-6:30pm R 3:30-5:30pm Weissman Foundry	ENGR 3499: Spec Topics Eng: Digital Power Conversion AC304			SUST2201: Intro to Sustainability W 3-6:00pm AC417	MTH 2135 & ENGR3635: Neurotech, Brains & Machines AC428	ENGR 3199: Special Top in Eng: Satellite Sys and Consulting Bus Pract. AC318	SCOPE	
5:00 PM															
6:00 PM															
9:00:00 PM						AHSE 0112: Olin Conductorless Orchestra 730-9pm AC318		ENGR 3370: Controls 7-10pm AC304							

AHSE		SCI		Math		INTEGRATED OFFERING (colored via discipline blending)				Color Key-Offering Blocks			
Thursday						Friday							
Session I: ENGX 2000: Quantitative Engineering Analysis Ia AC109 AC113 AC128	ENGR 2250 Sec 01, 02 & 03: User-Oriented Collaborative Design					ENGR 2320 : Mechanics Solids Structures TF 9-10:40am; W 9-10:00am (extra lect) AC328	ENGR 3390: Fundamentals of Robotics AC109	ENGR 2420: Intro MicroElectronic Circuits TF 9-10:40am Lab: W 1-2:30pm AC309		AHSE2599 or ENGR3299: Environmental Consulting at Olin T 9-10:40am; F 9-12:30pm AC213	SCI 1410: Materials Science and Solid State Chemistry: Materials and Practice Experiment AC413	SCI 1250/AHSE 2150: Six Microbes that Changed the World w/ Lab AC417 AC406 (Lab)	9:00 AM
													Session II: ENGX 2001: Quantitative Engineering Analysis Ib AC109 AC113 AC128
													12:30 PM
													1:30 PM
AHSE 1515: Products & Markets MR 1:30-4:10p AC318 AC326 AC328 AV428 MH120	MTH 2131 & ENGR 3531: Data Science AC417	AHSE 2199A: Spec Top AHS: Identity Mind & Brain AC128	MTH 3120: Partial Differential Equations AC109	ENGR 3599A: Spec Top in Computing: Data Structures and Algorithms AC309	ENGR 3599: Spec Top in Computing: Programming Languages R 1:30-4:00pm AC304	Session II: ENGR2199B: ESA: Signals AC304	ENGR 2350: Thermodynamics AC309	ENGR 2330: Mechanical Prototyping AC128	ENGR 3525: Software Systems AC326	ENGR 3392: Robotics Systems Integration AC109	ENGR 3599B-SL: Spec Top in Computing: Advanced Algorithms AC318	AHSE 2199: Spec Top AHS: Change the World: Personal Values AC417	3:10 PM
	ENGR 3290 & 4290: Affordable Design & E! T 3:30-6:30pm R 3:30-5:30pm Weissman Foundry	ENGR 3110: Elecanisms M 3:20-5:00pm; R 3:20-6:00pm AC306	SCI 1420: Metals, Mining & the Environment AC413	"Do Something" Dedicated Time						3:20 PM			
													6:00 PM
AHSE 0112: Olin Conductorless Orchestra 6:30-8pm AC318												9:00:00 PM ↓	