Olin College Registration Booklet

Fall 2010

Classes begin Thursday, September 2, 2010

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

Session	Add	Drop and Pass/No Credit	Withdraw
Full Semester (Sept 2 – Dec 10)	September 16, 2010	November 5, 2010	December 10, 2010
Session I (Sept 2-Oct 20)	September 9, 2010	October 5, 2010	October 20, 2010
Session II (Oct 21 – Dec 10)	October 27, 2010	November 19, 2010	December 10, 2010

Frequently Asked Questions and Instructions

What do I register for?
Students are allowed to register for a maximum of 20 credits. All students have a minimum requirement of 12 degree credits to be eligible for the Olin tuition scholarship.

The maximum credits can be distributed between **degree** and **non-degree** activities.
> **Degree** activities are defined as counting toward graduation credit and course requirements (all students must have a minimum of 12 degree credits). Examples of registered degree activities are standard courses, cross-registered courses, independent study and research for degree credit. Consult the catalog for your specific degree requirements.

> **Non-degree** activities are defined as **not** counting toward degree and subject requirements. An example is a passionate pursuit. Non-degree activities are not graded and appear on your transcript if you have met all of your objectives for the activity. Remember these do not count in your minimum requirement of 12 degree credits.

How do I choose my activities for degree and non-degree credit?
Use this booklet as a tool to assist you in preparation for advising discussions. Meet with your adviser BEFORE your registration date. Your adviser will "clear" you to register. If you are not cleared, you will not be permitted to register.

I am doing a Study Away Program next semester. Do I need to register?
YES! Students in approved semester away programs must register for a single course: **AWAY1000: Study Away Program**. This course will allow Olin to certify you as a full-time student during the semester you are away. Your approved course work will be transferred to your academic record upon receipt of a transcript from the host institution (provided you have received the minimum required grade). Note: All registrations will be cross-referenced with the Study Away Committee.

Olin Self Study, Independent Study and Research - - - How do I register?
- Olin's Self Study – Please see information on the <u>StAR Center website</u> for details. There is a new Self Study Guide Available to assist you. You will need to complete a form with your OSS intention by the last day to add a course for the fall 2010 semester.
- Independent Study and Research - Students interested in doing research and/or independent study must complete a Cover Sheet for Independent Study and Research. This form can be found on the forms tab of the StAR Center website. All forms must be received by the add deadline for the fall 2010 semester. There are no exceptions.

NEW INFO HERE

I am interested in doing a Passionate Pursuit next semester. How do I register?
If you are interested in doing a Passionate Pursuit, consult the Student Handbook for FAQ's. Passionate Pursuits require approval from the Executive committee of the Passionate Pursuit Board in addition to consent of a faculty sponsor and the student's adviser. Passionate Pursuit proposals should be sent to the chair of the executive board, the Dean of Student Life. The deadline is mid-semester.

CROSS-REGISTRATION
How do I participate in Cross-Registration with Babson, Brandeis or Wellesley (BBW)?
Olin students are allowed to take one course per school, per semester; with the exception of first semester freshmen. First semester freshmen are not permitted to participate in cross-registration.

When selecting a BBW course, keep in mind the time constraints of your Olin courses. Additionally, it is important to check for course pre-requisites and the enrollment. Under most circumstances, if the course is full, you will not be able to register for the course. Enrollment is generally found under course "tally" or listed with the course info. All BBW courses will be noted on your Olin degree audit by 'color' (the area of discipline). It is the student's responsibility to review the ARB approved 'coloring' on the ARB website and note the color on the cross-reg form. If a course is not found on the 'list', the student must petition the CSTB for appropriate coloring.

In order to submit a cross-registration request, use the cross-registration portlet under the MyStAR tab at http://my.olin.edu. The StAR Center will work with the host school to facilitate the registration. The following dates reflect the dates that the host school will accept cross-registration requests from Olin's StAR Center. Olin students may submit requests to the StAR Center any time before the later of the dates listed below.

> **Babson College Cross Registration dates:**
> **April 6 – date to be determined**
> You can find their offerings at .http://www.babson.edu/registrar/.
>
> **Brandeis University Cross Registration dates:**
> **August 16 — September 13, 2010**
> All courses require instructor permission in writing (email) or via a permission code to submit with your request. You can find Brandeis offerings at http://www.brandeis.edu/registrar/reg-sched/sch.html .
>
> **Wellesley College Cross Registration dates (courses above 100 level ONLY):**
> **April 26 – date to be determined**
> 100 level courses - Students interested in these courses can register during Wellesley's add period in September using the Visiting Student Card Process.
> You can find their offerings at Wellesley Schedule .

How do I Cross-Register to Olin College?
Olin welcomes students from Babson, Brandeis and Wellesley to register for Olin courses. In general, all courses except for some first year courses are eligible for cross-registration with the permission of the Olin faculty member. BBW students should send a request for a course through their Registrar's Office to the Student Accounts and Records (StAR) Center. Cross-registration request forms can be found at the home institution. Visit http://star.olin.edu for more information.

What About Co-Curriculars?
Registration and descriptions for Co-Curriculars will be released during the add period in September. If a student has a particular interest in a co-curricular that they would like to see offered, they are encouraged to seek out a "faculty/staff" sponsor before the end of this semester and notify the Dean of Student Life. Co-Curricular offerings will be posted at http://star.olin.edu.

How and When Do I Register?

Registration is done online using Pheonix Net (aka the portal or my.olin.edu). All information you need is under the MyStAR Tab.

Here are some useful tips from Olin's Information Technology Department:

During course registration sessions, the IT Help Desk often receives reports about sis.olin.edu and my.olin.edu being slow or unresponsive. In almost all cases, this is due to an excessive and often unnecessary workload placed on the system. By following these guidelines, you can help minimize this load and increase system responsiveness:

- Please use only one browser tab on one computer. In past sessions, some students were connecting from as many as four different computers or opening multiple sessions in multiple tabs. Each additional session consumes resources on the server and only serves to slow the system down.
- Please be patient and do not refresh the page. This causes the background system processing for the same task to be executed multiple times, adding additional load to the system.
- Please remember that everyone else in your group is trying to register at the same time. As much as we would like the system to be as responsive as it is during non-registration periods, this simply cannot happen when over 60 students are attempting to register for classes at the exact same moment. It takes time for the system to process all incoming requests and reconcile them with each other.
- Please avoid using the system during other groups' registration times. Again, this adds additional work to an already busy system.

With the exception of one session, we have seen the fewest slowdowns and smallest workloads on the registration system this semester that we have seen in several years thanks to many students following these guidelines.

We do realize the importance of registration to every student on campus. If you encounter errors from either sis.olin.edu or my.olin.edu during the registration process, please take a screenshot of the error you receive and send it, along with a detailed description of what you were doing when it occurred, to helpdesk@olin.edu so that we can resolve the issue as quickly as possible.

REGISTRATION TIMES:

On-line registration will take place April 12-14, 2010 during the evening hours. Information regarding the groups will be sent **via email** no later than April 6, 2010.

(Registration will be open to cleared and eligible students only. A cleared student is one that has met with his/her adviser and has an updated learning plan. An eligible student is one who does not have an outstanding financial balance with the college.)

When is the Add Period – the Drop Period – the last day to withdraw from a course? – REFERENCE HANDY CHART at beginning of this Booklet.

The Add period* is the first 10 class days of the semester. The Add period will begin on September 2, 2010 and end on September 16, 2010. Add requests can be processed in person at the StAR Center and on-line. Add/Drop forms can be found at http://star.olin.edu.

The Drop period begins September 2, 2010 and ends November 5, 2010. During this time, students can alter their schedule as long as they remain in a minimum of 12 credits of degree activities. A "drop" is removed from the student schedule and does not appear on transcripts. Drops and withdrawals after the add period require a hard copy form and must be processed at the StAR Center. There are no on-line drops after the add period ends.

The last day to withdraw from a course is the last day of instruction.

(*Additionally, students wishing to participate in cross-registration will be allowed to alter their Olin schedule to accommodate cross-registration requests if the host schools' add/drop period extends beyond September 16, 2010. This will be done at the StAR Center once the confirmation of the cross-registered request is received. The reason for this is due to the variable times at which we can honor cross-registration requests depending on the host school's registration times.)

Waitlists
Waitlists are available on most courses. In sis.olin.edu, a waitlist comment is included in the course catalog offering section by clicking on the "VIEW" button under requirements if there is indeed a waitlist.

Textbooks
Pursuant to the Higher Education Opportunity Act (HEOA) of 2008, information regarding required and recommended textbooks and supplemental course material may be viewed from the Olin's internet course schedule via https://my.olin.edu .

Fall 2010 Supplement to Current Course Catalog

Degree requirements are outlined in the 2009-10 Course Catalog. You may view the on-line catalog at <u>2009-10 Course Catalog</u>

Course descriptions can also be found in the <u>2009-10 Course Catalog</u>. Courses for Fall 2010 that have been approved after the catalog printing or for Special Topics descriptions please reference the listed.

AHS FOUNDATION COURSES

AHSE 1100
History of Technology: A Cultural and Contextual Approach
Instructor: Martello
Credits: 4 AHS

See Catalog for description

AHSE 1122
The Wired Ensemble: Instruments, Voices, Players
Instructor: Dabby
Credits: 4 AHS
Prerequisites: Ability to read music

See Catalog for description

AHSE 1130
Seeing and Hearing: Communicating with Photographs, Video and Sound
Instructor: Donis-Keller
Credits: 4 AHS

See Catalog for description

AHSE 1155
Identity from the Mind and the Brain (Who Am I and How Do I Know)
Instructor(s): Adler
Credits: 4 AHS

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.

AHSE 1199 Arts, Humanities and Social Science Foundation Topic

Section 01 / Subtitle: Live to Write – Creative Writing Workshop
Instructor(s): Shea
Credits: 4 AHS

Did you know that engineers are notorious for being poor writers?
> But it simply isn't the case!
> See for yourself in this Creative Writing Workshop.

Explore the poetic and narrative forms via reading, writing, and off-campus adventure. The genres of fiction, poetry, and creative nonfiction are the receptacles of our experience (present and past) as we attempt to write what we know, feel, and imagine. Students can expect weekly reading and short writing assignments in addition to the cultivation of a completed story, essay, or poetry manuscript. The task of laying claim to one's own voice is central to the course goals, yet, the assumption going in is that the idea is wet clay. No experience necessary!

Section 02 / Subtitle: Art Since 1945: Movements, Themes, Contexts
Instructor(s): Bottinelli
Credits: 4 AHS

What is art? What issues do artists address today? How do artists work? How are their pieces received? How can we look at contemporary art and how can we write about it? This AHS Foundation course combines chronological and thematic approaches to explore Art's creation, reception, and social impacts since 1945. The course offers an overview of different movements and ideas developed in the period of interest, analyzing them in relationship to the political and social context.

AHSE 3599: Special Topics in Business and Entrepreneurship
Intellectual Property for Engineers and Scientists
Instructor: D. Kerns, S. Gold
Credits: 2 AHSE
Hours: 2-0-4
Pre-requisite: AHSE 1500 (FBE)

This course introduces the fundamentals of intellectual property (IP): patents, trade secrets, copyrights and trademarks. There is an emphasis on patent protection for inventions, and a major project component of the course in which each student will create elements of patent applications that will be peer-reviewed in student teams. Topics include introduction to patent law, identifying what's patentable, tests for patentability, patent searches to identify prior art and as a resource for further innovation, the structure of a patent, reading and drafting patent claims, the patent prosecution process, international patents, commercialization of patent rights, protecting software, Olin College's unique IP policy, and the basics of trade secrets and copyrights.

AHSE 4190: Arts, Humanities Social Sciences Capstone Project
All students must complete either an AHS Capstone project (AHSE4190), an E! Capstone project (AHSE4590), or an AHS Capstone course by the end of their senior year. To complete the AHS or E! Capstone project in the fall of 2010, register for AHSE4190 or AHSE4590 now. To declare an AHS course your AHS Capstone course, register for the AHS course now, complete the form at http://projects.olin.edu/ahs/forms/form-capstone-proposal.html, and email the form to ahs@olin.edu. For complete information on the AHS Capstone please consult the AHS website at http://projects.olin.edu/ahs/capstone.html.

ENGR 1199: Special Topics in Engineering
"Introduction to the Microelectronics and Nanotechnology Revolution" or "micro-nano"
Instructor: S. Kerns
Credits: 4 ENGR
Hours: 4-0-8
Pre-requisite:

This course will develop the general scientific and engineering underpinnings microelectronics and nanotechnology, and examine how this new technological revolution is influencing a broad array of interdisciplinary fields (engineering, biology, biomedical engineering, material science, chemistry, physics, medicine, technology, management) and civilization as a whole (art, business, film, entertainment, politics). Special "widget deconstruction" topics will address common pieces of modern technology (e.g., cell phone, flash drive, GPS, DVD, digital camera) from the perspective of: "How do they do what they do?"; "How does microelectronics & nanotechnology plan in that functionality?"; and "Where is the technology going and how will it change the way we live our lives?" Student-led "round-table" discussions will examine the transformational impact of the microelectronics and nanotechnology revolution on modern society. No special knowledge of electrical and computer engineering is assumed, but the class will be highly interactive and student participation is key.

ENGR 2199: Special Topics in Engineering
Application of Microfluidics
Instructor: Adjunct/Storey
Credits: 4 ENGR
Hours: 4-0-8
Pre-requisite:
REGISTRATION NOTE: This course is designed intended to serve a mix of student from all class years. As such, registration will be limited per in registration evening.

Microfluidics systems can manipulate small volumes of fluids using small networks of channels, each of which are 10 to 100 microns in size. These devices offer the promise of integrating many laboratory processes onto a single chip, thereby increasing throughput and decreasing cost. Microfluidic technologies are proving to be a critical tool for research in drug development, genomics, proteomics, molecular diagnostics, and analytical chemistry. Further development of microfluidics is one key to future applications such as personalized medicine, integrated sensors for chemical and biological detection, inexpensive medical diagnostics, and massively parallel drug discovery. Just as microelectronics revolutionized computation by increasing capacity and decreasing the cost of performing calculations, microfluidics has the potential to do the same in biology and chemistry. In this course, we will cover some of the basic physics, chemistry, fluid mechanics, engineering and mathematics relevant to microfluidics. We will study existing microfluidics designs and functions. The course will be project based with students designing and building functional microfluidic devices relevant to global health projects.

ENGR 3250
Product Design and Development
Instructor(s): Neeley
Credits: 4 ENGR
Prerequisites: ENGR 2250

Interdisciplinary teams of students from Babson College, the Rhode Island School of Design (RISD) and Olin develop new products. A comprehensive design process is employed, which addresses opportunity recognition, user characterization, alternatives development and analysis, and prototyping. Particular attention is paid to developing products that meet users' needs and have a viable path to market. Class will be held at all three schools. Transportation to class will be provided. Teamwork might require travel to RISD.

ENGR 3299: Special Topics in Design Engineering
Designing (Design Thinking + Entrepreneurship): Creating a New Product Design Course and Experience
Instructor: Neeley
Credits: 4 ENGR
Hours: 4-0-8
Prerequisites: UOCD or design experience. Please contact Prof. Neeley if you have questions.
Note: Meets design depth requirement.

In the Spring of 2011, we will offer a new experimental course intended to completely reimagine the product design + entrepreneurship process. In true Olin spirit we are using the prior semester (Fall 2010) to engage a small group of students to aid in the creation of this new course. Work done during Fall 2010 will define the course to be offered in Spring 2011. Our work during the Fall will be guided by the premise that, by applying a design thinking approach to the act of product design itself, we can create a process more suited users like ourselves: individuals or small teams, limited resources and timescales on the order of weeks and months rather than years. The goal is to create a process that will allow each participant in the Spring course to imagine, design, prototype, test, market and sell a new product in the span of the semester. To achieve this, we will have to explore, understand and analyze each element of existing processes with an eye towards exploiting best practices, redesigning them when relevant and, if needed, creating processes anew.

Participants in this class will be expected to conduct research and become subject matter experts in specific relevant areas of design, engineering and entrepreneurship. Each will bring this developed expertise to bear on the collective creation of the comprehensive process that will be carried forward into the Spring.

ENGR 3399
Special Topics in Mechanical Engineering: Mechanical and Aerospace Systems I
Instructors: Lee / TBD
Credits: 4 ENGR
Hours: 4-0-8
Prerequisites: MTH 2140, ENGR 2340 or permission of instructor

Techniques for the design and analysis of mechanical and aerospace systems are studied through case projects that involve both computational analysis and experimental measurements. Topics will be selected from a range of possible topics such as vibration analysis, flexible body dynamics, aerodynamics, and aeroelasticity. Projects may include the design and construction of vibration absorbers or ambient vibration energy harvesting systems, the dynamics and stability of aerospace vehicles, lift and drag of airfoils, the control of flutter instabilities of elastic structures, the design and flight testing of a lighter-than-air-vehicle, or mission planning of aeronautical or aerospace systems.

ENGR 3499A
Special Topics in Electrical and Computer Engineering: *Mircroelectromechanical Systems - MEMS*
Instructor(s): Kerns, D.
Credits: 4 ENGR
Hours: 4-0-8
Prerequisites: ENGR 1120

This course provides an introduction to the analysis, design and fabrication of microelectromechanical systems (MEMS). Students will learn design and analytical tools taken from an array of diverse fields, such as mechanical engineering, electrical engineering and materials science. Students will also learn basic fabrication techniques and material properties used in the creation of MEMS devices at the physical scale of micrometers (microns) and below. . Examples of system applications will be selected from a wide set of fields and may include energy harvesters, inertial sensors, chemical sensors and reactors, microturbine engines, microactuators, cell sorters and micromirror displays.

MTH1000
Calculus with Symbolic Computation
Instructor(s): Osborne
Credits: 2 MTH
Grading: Pass/No Record

Calculus is a critically important subject that lies at the heart of all scientific and engineering disciplines. A strong foundation in this subject is therefore a necessity. The goals of this course are to solidify and build on students prior introductory calculus experiences. With the aide of symbolic computation, we will touch on both familiar and new topics from differential and integral calculus. Topics covered will include curves and vectors in the plane; a review of differentiability with an emphasis on linearization (first order approximation); differentials; optimization and least squares; Taylor series (higher order approximations) and power series; functions defined by integrals and improper integrals; the fundamental theorem of calculus. Additional topics could include; introduction to differential equations with an emphasis on series solutions; special functions; introduction to Fourier series.

SCI 2299
Special Topics in Biological Sciences: *Emerging Technologies in Cancer Research*
Instructor(s): Pratt, Joanne
Credits: 4 SCI
Hours: 4-0-8
Prerequisites:

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 angiogenesis inhibitors, microarrays, stem cell therapy, gene therapy, radiology/imaging and biological and immunological modifiers. Class discussion and student presentation of primary literature will be integral parts of this course.

SCI 2399
Special Topics in Chemistry: *Group Theory*
Instructor(s): Morse
Credits: 4 SCI
Hours: 4-0-8
Prerequisites:

The course will assume no prior knowledge of group theory and will build up all the required mathematical tools within. Group theory will be used to explain molecular orbitals in both organic and inorganic molecules. This will allow for discussion and explanation of electronic structure, electronic transitions, and magnetism and the spectroscopies associated with them. While some inorganic chemistry and an understanding of bonding in molecules will be useful, the material will reinforce rather than assume a knowledge of those courses.

Other Registration Opportunities or Notes
ENGR1330
Fundamentals of Machine Shop Operations

Instructor(s): Anderson
Credits: 4 ENGR
Hours: 6-0-6
Pre-requisites: Preference will be given those with prior machining and CAD experience

The course focuses on the fundamentals of machine shop operations, the foundations for all classical machining techniques. In addition, we will cover necessary mechanical design elements and CAD techniques to equip you with the skills to help other students. No basics will be skipped! We will cover topics in proper breadth and depth to ensure that you come away with a sound understanding of machine shop safety, bench work, measurement, part layout, machine setup, operation and maintenance. We will also focus on design techniques and drawing creation using SolidWorks. Projects will be assigned to enforce these concepts and also provide many hours of machine time. There will be incentives to entice you to work professionally, learn how to interpret and establish appropriate design requirements and make parts to specification. Additionally you will learn how to inspect parts to ensure they meet specification. Time permitting - there will be field trips to local establishments to expand your horizons.

Area	Course #	Sec #	Course Title	Instructors	Credits	Time	Location	Enroll Limits	Note
AHS	AHSE 0112	01	The Olin Conductorless Orchestra	Dabby	1	R 6:45-9:00p	AC305; AC318	none	Audition Required; See Description
AHS	AHSE 3190	01	Arts, Humanities, Social Sciences Capstone Preparatory Workshop	Epstein	1	n/a		20	
AHS	AHSE 4190	01	Arts, Humanities, Social Sciences Capstone	Martello	4	T 3-5:50p	AC318	30	
DSN	ENGR 3220	01	Human Factors Interface Design	Stein; Bator	4	TF 1-2:50p	AC109	24	
DSN	ENGR 3220	01	Human Factors Interface Design	Stein; Bator	4	TF 1-2:50p	AC109	24	
DSN	ENGR 3250	01	Product Design & Development	Neeley	4	R 12:40-6:00p	AC328	15	Taught with Rhode Island School of Design and Babson College
DSN	ENGR 3299	01	Special Topics in Design Engineering: *Designing (Design Thinking + Entrepreneurship): Creating a New Product Design Course and Experience*	Neeley	4	TF 1-2:50p	AC128	20	Maybe used for Design Depth
E!	AHSE 1500	01	Foundations of Business and Entrepreneurship	Gold	4	TF 8-9:50a	AC326	40	
E!	AHSE 3510	01	New Technology Ventures	Parizeau	4	TR 4-5:35p	AC113	15	Cross-listed course with Babson; Waitlist Available
E!	AHSE 3599	01	Special Topics in Business and Entrepreneurship: *Intellectual Property*	Kerns, D.	2	T 10-11:50a	MH273	20	
E!	AHSE 4590	01	Entrepreneurship Capstone	Gold	4	F 10-11:50a	MH273	10	
E:BE	ENGR 3600	01	Topics in Bioengineering	Sieminski	4	TF 10-11:50a	MH373	25	Experimental Grading Used
E:C	ENGR 2510	01	Software Design	Sheldon; Morrow	4	TF 9-9:50a; W 9-10:50a	AC328	25	
E:C	ENGR 3520	01	Foundations of Computer Science	Stein	4	TF 10-11:50a	AC309	25	
E:MS	ENGR 3820	01	Failure Analysis and Prevention	Stolk	4	TF 1-2:50p	AC413	21	Experimental Grading Used
E:SYS	ENGR 3710	01	Systems	Bennett	4	MR 1-2:50p	AC318	25	
ECE	ENGR 3410	01	Computer Architecture	Sheldon	4	MR 10-11:50a	AC304	25	
ECE	ENGR 3420	01	Introduction to Analog and Digital Communications	Govindasamy	4	MR 9-9:50a; T 3-4:50p	AC304	25	
ECE	ENGR 3426	01	Mixed Analog-Digital VLSI I	Chang; Minch	4	MR 10-11:50a	AC309	25	
ECE	ENGR 3450	01	Semiconductor Devices	Kerns, S	4	TF 1-2:50p	AC304	25	
ECE	ENGR 3499A	01	Special Topics in Electrical and Computer Engineering: *Microelectromechanical Systems*	Kerns, D	4	MR 1-2:50p	AC304	25	
ENGR	ENGR 1199	01	Special Topics in Engineering: *Introduction to the Microelectronics and Nanotechnology Revolution*	Kerns, S	4	TF 10-11:50a	AC113	12	does not apply to major course requirements; does count towards engineering credit requirements
ENGR	ENGR 1330	01	Fundamentals of Machine Shop Operations	Anderson	4	W 1-4:50p	AC104	6 w/ Wailtlist	

Area	Course #	Sec #	Course Title	Instructors	Credits	Time	Location	Enroll Limits	Note
ENGR	ENGR 2199	01	Special Topics in Engineering: *Applications of Microfluidics*	Irimia; with Storey	4	T 3-5:50p	AC417	10	
ENGR	ENGR 2210	01	Principles of Engineering	Chang	4	TF 10-11:50a	AC306	28	Waitlist Available
ENGR	ENGR 2210	02	Principles of Engineering	Chang	4	TF 1-2:50p	AC306	28	Waitlist Available
ENGR	ENGR 4190	01	Senior Capstone Program in Engineering (SCOPE)	Bennett, and TBD	4	W 8-10:50a; W 1-5:50p		90	
ENGR	ENGR 4190a	01	Senior Capstone Program in Engineering (SCOPE) - For NonOlin Students		2;4	W 8-10:50a; W 1-5:50p		n/a	*Available for non-Olin Students*
Independent Study	ENGR, SCI, MTH 0098, AHSE 0198; AHSE 0598; ISR 0098		Independent Study Activity		varied				
ME	ENGR 2340	01	Dynamics	Mahajan	4	M 6-7pm; F 10-11:50a	AC328	30	
ME	ENGR 3310	01	Transport Phenomena	Storey	4	MR 3-4:50p	AC326	30	
ME	ENGR 3330	01	Mechanical Design	Miller, S	4	MR 1-2:50p	AC309	25	
ME	ENGR 3390	01	Robotics	Barrett	4	MR 3-4:50p	AC309	25	
ME	ENGR 3399	01	Special Topics in Mechanical Engineering: *Mechanical and Aerospace Systems I*	Lee	4	TF 1-2:50p	AC328	12	
MTH	MTH 2110	01	Discrete Math	Adams	4	MR 1-2:50p	AC417	48	
MTH	MTH 2120	01	Linear Algebra	Rubiano	2	MR 10-11:50a	AC326	20	Session I
MTH	MTH 2120	02	Linear Algebra	Rubiano	2	MR 1-2:50p	AC326	20	Session II
MTH	MTH 2130	01	Probability and Statistics	Downey	2	MR 8-9:50a	AC318	20	Session I: This course is taught with a 'computational' flavor. In addition to the catalog description, there will be emphasis on computational methods, stochastic simulation and Bayesian statistics. To this end, a prerequisite of ENGR2510, Software Design or comparable programming experience in Python is required
MTH	MTH 2130	02	Probability and Statistics	Downey	2	MR 3-4:50p	AC318	20	Session II: This course is taught with a 'computational' flavor. In addition to the catalog description, there will be emphasis on computational methods, stochastic simulation and Bayesian statistics. To this end, a prerequisite of ENGR2510, Software Design or comparable programming experience in Python is required
MTH	MTH 2140	01	Differential Equations	Hoffman	2	MR 1-2:50p	AC126	20	Session I

Area	Course #	Sec #	Course Title	Instructors	Credits	Time	Location	Enroll Limits	Note
MTH	MTH 2140	02	Differential Equations	Hoffman	2	MR 10-11:50a	AC126	20	Session II
MTH	MTH 3150	01	Numerical Methods and Scientific Computing	Geddes	4	MR 10-11:50a	AC318	25	Experimental Grading Used
OIE	AHSE 1100	01	History of Technology: A Cultural and Contextual Approach	Martello	4	TF 10-11:50a	AC128	15	AHS Foundation
OIE	AHSE 1122	01	The Wired Ensemble - Instruments, Voices, Players	Dabby	4	W 3-4:50p; F 10-11:50a	AC305; AC304	15	AHS Foundation
OIE	AHSE 1130	01	Seeing and Hearing: Communicating with Photographs, Video and Sound	Donis-Keller	4	TF 10-11:50a	AC313	15	AHS Foundation
OIE	AHSE 1155	01	Identity from the Mind and the Brain: Who Am I and How Do I Know	Adler	4	TF 10-11:50a	AC417	15	AHS Foundation
OIE	AHSE 1199	01	Arts, Humanities. Social Science Foundation Topic: *Live to Write - Creative Writing Workshop*	Shea	4	TF 10-11:50a	AC326	15	AHS Foundation
OIE	AHSE 1199	02	Arts, Humanities. Social Science Foundation Topic: *Art Since 1945 - Movements, Themes, Contexts*	Bottinelli	4	TF 10-11:50a	AC318	15	AHS Foundation
OIE	ENGR 1110	01	Modeling and Control	Storey/Minch	3	M 1-1:50p; W 1-2:50p	M MH120; AC428	25	
OIE	ENGR 1110	02	Modeling and Control	Storey/Minch	3	M 1-1:50p; F 1-2:50p	M MH120; AC428	25	
OIE	ENGR 1110	03	Modeling and Control	Storey/Minch	3	M 1-1:50p; T 1-2:50p	M MH120; AC428	25	
OIE	ENGR 1110	04	Modeling and Control	Storey/Minch	3	M 1-1:50p; R 1-2:50p	M MH120; AC428	25	
OIE	ENGR 1200	01	Design Nature	Eris	4	M 3-4:50p; TR 12:30-2:20p	M MH120; AC204	25	
OIE	ENGR 1200	02	Design Nature	Camp	4	M 3-4:50p; TR 12:30-2:20p	M MH120; AC206	25	
OIE	ENGR 1200	03	Design Nature	Eris	4	M 3-4:50p; TR 3:30-5:20p	M MH120; AC209	25	
OIE	ENGR 1200	04	Design Nature	Lee	4	M 3-4:50p; TR 3:30-5:20p	M MH120; AC213	25	
OIE	MTH 1111 and SCI 1111	01	Modeling and Simulation of the Physical World	Somerville, Downey, Sieminski, Mahajan	4	MR 10-11:50a; W 9-10:50a	AC204 and MH120	25	
OIE	MTH 1111 and SCI 1111	02	Modeling and Simulation of the Physical World	Somerville, Downey, Sieminski, Mahajan	4	MR 10-11:50a; W 9-10:50a	AC206 and MH120	25	
OIE	MTH 1111 and SCI 1111	03	Modeling and Simulation of the Physical World	Somerville, Downey, Sieminski, Mahajan	4	MR 10-11:50a; W 9-10:50a	AC209 and MH120	25	
OIE	MTH 1111 and SCI 1111	04	Modeling and Simulation of the Physical World	Somerville, Downey, Sieminski, Mahajan	4	MR 10-11:50a; W 9-10:50a	AC213 and MH120	25	
OIE	MTH 1000	01	Calculus with Symbolic Computation	Osborne	2	WF 1-2:50p	AC126	25	Optional for New Students
OIE	MTH 1000	02	Calculus with Symbolic Computation	Osborne	2	TR 3-4:50p	AC126	25	Optional for New Students
OIE	OIE 1000	01	Olin Introductory Experience	Tatar	1 non-degree	W 7pm; other times TBD		93	

Area	Course #	Sec #	Course Title	Instructors	Credits	Time	Location	Enroll Limits	Note
Research	ENGR, SCI, MTH 0097, AHSE 0197; AHSE 0597 ; ISR 0097		Undergraduate Research Activity		varied				
SCI	SCI 1130	A1	Mechanics: A *Theoretical Approach*	Zastavker	4	TF 10-11:50a	AC126	28	
SCI	SCI 1210	01	Principles of Modern Biology with Lab	Huang	4	MR 10-11:50a; R 3-5:50p	AC417 AC406 lab	21	
SCI	SCI 1210	02	Principles of Modern Biology with Lab	Donis-Keller	4	TF 1-2:50p; W 1-3:50p	AC417 AC406 lab	21	
SCI	SCI 1410	C1	Materials Science and Solid State Chemistry with Lab: *Biomaterials, Polymers and Mechanical Properties*	Chachra	4	MR 9-11:50a	AC413 / 328	21	
SCI	SCI 1410	C2	Materials Science and Solid State Chemistry with Lab: *Biomaterials, Polymers and Mechanical Properties*	Chachra	4	MW 3-5:50p	AC413 / 328	21	
SCI	SCI 2130	01	Modern Physics	Holt	4	MR 10-11:50a	AC113	15	
SCI	SCI 2299	01	Special Topics in Biological Sciences: Emerging Technologies in Cancer Research	Pratt, J	4	MR 1-2:50p	MH273	15	
SCI	SCI 2320	01	Organic Chemistry w/ Lab	Morse	4	MR 1-2:50p	AC128	30	Choose Lab A or B
SCI	SCI 2320 L	A	LAB: Organic Chemistry	Morse	0	T 3-5:50a	AC409	15	
SCI	SCI 2320 L	B	LAB: Organic Chemistry	Morse	0	W 1-3:50p	AC409	15	
SCI	SCI 2399	01	Special Topics in Chemistry: Group Theory	Morse	4	MR 10-11:50a	AC128	15	
SCI	SCI 3130	01	Advanced Classical Mechanics	Zastavker	4	TF 8-9:50a	AC126	15	
Self Study	ENGR, SCI, MTH, AHSE 4198; AHSE 4598 ; ISR 4198		Olin Self Study		4				
	AWAY1000	01	Study Away Program		12				Registration Required for those in APPROVED Study Away Programs
	OIP 1000	01	The Olin Internship Practicum	Phelps	1				SEE PGP for Enrollment information

Key:

ECE	ME	ENGR / DSN Courses	OIE or Genl Req	AHSE	SCI	Math

Mon

8:00

MTH 2130 Sec 01=Sess I
Prob Stats
318

8:50

9:00

SCI 1410 C1
MatSci & Solid State Chemistry
Biomaterials, Polymers, Mech Properties
413 / 328

9:50

10:00

OIE Modeling and Simulation of Physical World MTH 1111 / SCI 1111 all sections
204, 206, 209, 213 MH120

SCI 1210 sec 01
Prin Modern Bio
417

MTH 2120 Session I
Linear Algebra
326

MTH 2140 Session II
Diff Equat'ns
126

MTH 3150 Numerical Methods and Scientific Computing
318

SCI 2399
Group Theory
128

ENGR 3410 Computer Architecture
304

ENGR 3426 MADLVSI I
309

SCI 2130 Modern Physics
113

10:50

11:00

11:50

12:00

12:50

1:00

ENGR 3499A Spec Topics in ECE: Microelectromechanical Systems
304

MTH 2120 Sec 02 Session II
Linear Algebra
326

MTH 2140 Sec 01 Session I
Diff Equat'ns
126

MTH 2110 Discrete Math
417

ENGR 3710 Systems
318

ENGR 3330 Mechanical Design
309

SCI 2320 sec 01
Organic Chemistry
128

SCI 2299 sec 01 Spec Topic Biological Sci: Emerging Tech Cancer Research MH 273

OIE ENGR 1110 Mod Control all sections MH 120

1:50

2:00

2:50

3:00

OIE ENGR1200 Design Nature all sections MH120 and AC204, 206, 209, 213

SCI 1410 C2
MatSci & Solid State Chemistry
Biomaterials, Polymers, Mech Properties
413 / 328

MTH 2130 Sec 02=Sess II
Prob Stats
318

ENGR 3310 Transport Phenomena
326

ENGR 3390 Robotics
309

3:50

4:00

4:50

5:00

5:50

6:00

ENGR 2340 Dynamics
328

6:50

Tues

8:00

AHSE 1500 Found. Of Bus. And E-ship
326

SCI 3130 Advanced Classical Mechanics
126

9:00

ENGR 3420 Intro Anal & Dig Comm
304

9:50

ENGR 2510 Software Design
328

10:00

OIE AHS Foundation Block
AHSE1110 - AC128
AHSE1130 - AC313
AHSE1155 - AC417
AHSE1199 - AC326
AHSE1199 - AC318

SCI 1130-A1 Mechanics: Theoretical
126

ENGR 3600 Topics Bioengineering
MH 373

ENGR 3520 Foundations of Computer Science
309

ENGR 1199 Spec Topics: Intro to Microelectronics and Nanotechnology Revolution
113

ENGR 2210 sec 01 Prin of Engineering
306

AHSE 3599 Intell Property
MH 273

10:50

11:00

12:50

1:00

SCI 1210 sec 02 Prin Modern Bio
417

ENGR 3820 Failure Analysis and Prevention
413

ENGR 3220, sec 01 and 02 Human Factors and Interface Design
109

ENGR 3299 Spec Topics in Design: Designing Design Thinking / E! Course
128

ENGR 3450 Semi Conductor Devices
304

ENGR 3399: Spec Top ME: Mech/Aerospace Sys I
328

ENGR 2210 sec 02 Prin of Engineering
306

OIE ENGR1200 Design Nature sec 01, 02
12:30-2:20p
204, 206

OIE Mod Control ENGR 1110 sec 03
428

1:50

2:00

2:50

3:00

ENGR 3420 Intro Anal & Dig Comm
304

AHSE 4190 AHS Capstone Project
318

SCI 2320L Sec A
Orgo LAB
409

ENGR 2199: Spec Top Engr: Applications of Microfluidics
417

OIE MTH 1000 sec 02 Calculus w/ Symbolic Computation OPTIONAL, 2 cr
126

OIE ENGR1200 Design Nature sec 03, 04
3:30-5:20p
209, 213

3:50

4:00

AHSE 3510 Tech New Ventures
4-5:35p
113

4:50

5:00

Wed

9:00

ENGR 2510 Software Design LAB
328

OIE Modeling and Simulation of Physical World MTH 1111 / SCI 1111 all sections
204, 206, 209, 213 MH120

9:50

11:00 – 11:50

Open Meeting Time

1:00

SCI 1210 -02 Prin Modern Bio LAB
406

SCI 2320L Sec B
Orgo LAB
409

OIE Mod Control ENGR 1110 sec 01
428

OIE MTH 1000 sec 01 Calculus w/ Symbolic Computation OPTIONAL, 2 cr
126

ENGR 1330 Machine Shop Operations
104

3:00

SCI 1410 C2
MatSci & Solid State Chemistry
Biomaterials, Polymers, Mech Properties
413 / 328

AHSE 1122 Wired Ensemble
305; 304

S C O P E (blue vertical bars on right margin)

Key:

ECE	ENGR / DSN Courses	ME	ICB or General Engr Req'mt	AHSE	SCI	Math

Thurs | **Fri**

8:00

MTH 2130 Sec 01=Sess I — Prob Stats — 318

AHSE 1500 — Found. Of Bus. And E-ship — 326

SCI 3130 — Advanced Classical Mechanics — 126

8:50

9:00

SCI 1410 C1 — MatSci & Solid State Chemistry

ENGR 3420 — Intro Anal & Dig Comm — 304

ENGR 2510 — Software Design — 328

9:50

10:00

SCI 1210 sec 01 — Prin Modern Bio — 417

Biomaterials, Polymers, Mech Properties — 413 / 328

MTH 2120 Session I — Linear Algebra — 326

MTH 2140 Session II — Diff Equat'ns — 126

MTH 3150 — Numerical Methods and Scientific Computing — 318

SCI 2399 — Group Theory — 128

ENGR 3410 — Computer Architecture — 304

ENGR 3426 — MADLVSI I — 309

SCI 2130 — Modern Physics — 113

OIE — Mod / Sim of Physical World sec 01, 02, 03, 04 — MTH 1111 / SCI 1111 — 204, 206, 209, 213 — MH120

OIE — AHS Foundation Block — AHSE1110 - AC128, AHSE1122 - AC304, AHSE1130 - AC313, AHSE1155 - AC417, AHSE1199 - AC326, AHSE1199 - AC318

SCI 1130-A1 — Mechanics: Theoretical — 126

ENGR 3600 — Topics Bioengineering — MH373

ENGR 3520 — Foundations of Computer Science — 309

ENGR 1199 — Spec Topics: Intro to Microelectronics and Nanotechnology Revolution — 113

ENGR 2340 — Dynamics — 328

ENGR 2210 sec 01 — Prin of Engineering — 306

AHSE 4590 — Entrepreneurship Captsone — MH 273

10:50

11:00

11:50

12:00

12:50

1:00

ENGR 3499A — Spec Topics in ECE: Microelectromechanical Systems — 304

MTH 2120 Sec 02 Session II — Linear Algebra — 326

MTH 2140 Sec 01 Session I — Diff Equat'ns — 126

MTH 2110 — Discrete Math — 417

ENGR 3710 — Systems — 318

ENGR 3330 — Mechanical Design — 309

SCI 2320 sec 01 — Organic Chemistry — 128

SCI 2299 sec 01 — Spec Topic Biological Sci: Emerging Tech Cancer Research — MH 273

ENGR 3250 — Product Design and Development — 328

OIE ENGR1200 — Design Nature sec 01, 02 — 12:30-2:20p — 204, 206

OIE — Mod Control ENGR 1110 sec 04 — 428

SCI 1210 sec 02 — Prin Modern Bio — 417

ENGR 3820 — Failure Analysis and Prevention — 413

ENGR 3220 sec 01 and 02 — Human Factors and Interface Design — 109

ENGR 3299 — Spec Topics in Design: Designing Design Thinking / E! course — 128

ENGR 3450 — Semi Conductor Devices — 304

ENGR 3399: — Spec Top ME: Mech/Aerospace Sys I — 328

ENGR 2210 sec 02 — Prin of Engineering — 306

OIE — MTH 1000 sec 01 — Calculus w/ Symbolic Computation — OPTIONAL, 2 cr — 126

OIE — Mod Control ENGR 1110 sec 02 — 428

1:50

2:00

2:50

3:00

MTH 2130 Sec 02=Sess II — Prob Stats — 318

ENGR 3310 — Transport Phenomena — 326

ENGR 3390 — Robotics — 309

AHSE 3510 — Tech New Ventures — 4-5:35p — 113

OIE MTH 1000 sec 02 — Calculus w/ Symbolic Computation — OPTIONAL, 2 cr — 126

OIE ENGR1200 — Design Nature sec 03, 04 — 3:30-5:20p — 209, 213

SCI 1210-01 — Prin Modern Bio LAB — 406

Community Service

3:50

4:00

4:50

5:00

5:50

6:00

AHSE 0112 Olin Conductorless Orchestra 6:45-9:00pm

6:50

Area	Course #	Course Title
AHS	AHSE 0112	The Olin Conductorless Orchestra
AHS	AHSE 2199	Special Topics in Arts, Humanities, Social Sciences: TBD
AHS	AHSE 2199A	Special Topics in Arts, Humanities, Social Sciences: TBD
AHS	AHSE 2199B	Special Topics in Arts, Humanities, Social Sciences: TBD
AHS	AHSE 3190	AHS Capstone Preparatory Workshop
AHS	AHSE 3199	Special Topics in Arts, Humanities, Social Sciences: *Leadership and Ethics*
AHS	AHSE 4190	Arts, Humanities, Social Sciences Capstone
AHS / SCI	AHSE 2110 / SCI 1410A	The Stuff of History: Materials and Culture in Ancient, Revolutionary and Contemporary Times
DSN	ENGR 2250	User Oriented Collaborative Design (3 sections)
DSN	ENGR 32xx	Design Depth: E! and Design
E!	AHSE 1500	Foundations of Business and Entrepreneurship
E!	AHSE 4590	Entrepreneurship Capstone (2 sections)
E:BE	ENGR 3810	Structural Biomaterials
E:BE	ENGR3699	Biotransport
E:C	ENGR 2510	Software Design
E:C	ENGR 3525	Software Systems
E:MS	ENGR 3899	Special Topics in Materials Science: *Thin Film Materials Science*
ECE	ENGR 2410	Signals and Systems
ECE	ENGR 2420	Introduction to Microelectronic Circuits
ECE	ENGR 3415	Digital Signal Processing
ECE	ENGR 3427	Mixed Analog-Digital VLSI II
ECE	ENGR 3499	Special Topics in Electrical and Computer Engineering: *Principles of Wireless Communications*
ECE	ENGR 3499A	Special Topics in Electrical and Computer Engineering: *Embedded Systems*
ECE	ENGR3499A	Special Topics in Electrical and Computer Engineering: *Introduction to Information Theory*

Area	Course #	Course Title
ENGR	ENGR 1120	Introduction to Modeling and Control: Engineering of Spatially Distributed Systems (3 sections)
ENGR	ENGR 2210	Principles of Engineering
ENGR	ENGR 3199A	Special Topics in Engineering: *Instrumentation: Sensors and Signals*
ENGR / E!	ENGR 3199 / AHSE 3599	Special Topics in Engineering (or Entrepreneurship): *Project Management for Engineering Businesses*
ENGR/AHS	2xxx	Engineering for Humanity
ENGR/SCI	ENGR/SCI 3120	Solid State Physics
ENGR/SCI	ENGR/SCIXXXX	Microscopy
ME	ENGR 2320	Mechanics of Solids and Structures
ME	ENGR 2330	Introduction to Mechanical Prototyping
ME	ENGR 2350	Thermodynamics
ME	ENGR 3370	Controls
ME	ENGR 3380	Design for Manufacturing
ME	ENGR 3399	Special Topics in Mechanical Engineering: Robotics 2
ME	ENGR 3399	Special Topics in Mechnical Engineering: *Mechanical and Aerospace Systems II*
MTH	MTH 1120	Vector Calculus (in conjunction with SCI1121-01)
MTH	MTH 1120	Vector Calculus (in conjunction with SCI1121-02) *("Bio-inspired")*
MTH	MTH 2120	Linear Algebra
MTH	MTH 2130	Probability and Statistics (2 sections)
MTH	MTH 2140	Differential Equations
MTH	MTH 2160	Intro Math Modeling
MTH	MTH 3120	Partial Differential Equations
MTH	MTH 3140 / ENGR xxxx	Error Control Codes
Non-Degree	MEC 1000	Fundamentals of Machine Shop Operations
SCI	SCI 1121	Electricity and Magnetism: *A Modeling and Simulation Approach*

Area	Course #	Course Title
SCI	SCI 112X	Special Topics in Science: Biological Physics
SCI	SCI 1130	Mechanics
SCI	SCI 1210	Principles of Modern Biology with Lab (2 sections)
SCI	SCI 1310	Intro Chemistry with Lab
SCI	SCI 1410	Materials Science and Solid State Chemistry with Lab: *Thermal and Mechanical Properties*
SCI	SCI 2210	Immunology (at Wellesley)
SCI	SCI 2299	Special Topics in Biology: *Microbial Diversity*