

Olin College
Registration
Booklet



The Washington Apple

Fall 2005

Classes begin September 1, 2005

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Olin College Registration Booklet Fall 2005

Registration: April 12, 13, 14, 2005; at Orientation (August 31st) for First Years
Add Period: September 1-15, 2005
First day of instruction: September 1, 2005
Drop Period Ends: November 8, 2005
Last day to Withdraw from a course: December 13, 2005
Last day of instruction: December 13, 2005
Exposition Ends: December 21, 2005

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Frequently Asked Questions and Instructions

What do I register for?

Students are allowed to register for a maximum of 20 credits, with the exception of first semester freshmen who are allowed a maximum of 16 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 subject 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. Examples are passionate pursuits, shop and research for non-degree credit. Non-degree activities are not graded and appear on your transcript if you have met all of your objectives for the activity.

Note: Non-degree activities must be declared at the time of application. They cannot be changed to a degree activity after that time. Likewise, courses designated as degree credit cannot be changed to non-degree credit after the Add period.

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 once you have met and your learning plan is up-to-date. 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 Standing Committee on Study Away.

I am interested in doing Research and/or Independent Study next semester. How do I register?

Students interested in doing research and/or independent study can do so by applying to the Independent Study and Research Board (ISURB).

Students register for the ISURB activity after they have been granted approval. All approved applications from ISURB must be filed with the StAR Center for registration by the Add period.

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.

I am a SENIOR, what do I do about SCOPE and the Olin Self Study (formerly Technical Self Study)?

All seniors, expecting to graduate in May 2006, must register for any section of SCOPE (teams will be formed later and reassigned to proper sections; do not worry about section assignments during registration). Seniors must also register for the Technical Self Study. The details of this activity will be forthcoming from the Academic Recommendation Board.

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 section information.

Babson College Cross Registration dates: April 15-24, 2005 and again August 15-September 7, 2005

You can find their offerings at <http://newton.babson.edu/registrar/>. You do not need a log-in to access the information.

Choose "course listing" from the menu options on the left menu bar and then follow the prompts from that point. It is best to sort by course title and course number. If you find a course you are interested in, complete a cross-registration form (found at <http://star.olin.edu>) and send it to star.center@olin.edu. The StAR Center will work with Babson to facilitate the registration.

Brandeis University Cross Registration dates: Submit requests during April 16, 2005 through tbd and again at the beginning of the fall semester

You can find Brandeis offerings at <http://www.brandeis.edu/registrar/reg-sched/sch.html>.

If you find a course you are interested in, complete a cross-registration form (found at <http://star.olin.edu>) and send it to star.center@olin.edu. The StAR Center will work with Brandeis to facilitate the registration.

Wellesley College Cross Registration dates: May 4-August 12, 2005; and again at the beginning of the fall semester.

You can find their offerings at <http://www.wellesley.edu/Registrar/menu.html>

Students interested in pursuing a course at Wellesley should complete a registration form (found at <http://star.olin.edu>) and send it to star.center@olin.edu. The StAR Center will facilitate the registration for Olin students.

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 the first year Integrated Course Blocks (ICBs) 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>.

When Do I Register?

On-line registration will take place April 12-14, 2005 during the evening hours for upper-class students. Information regarding the groups will be sent **via email** no later than April 8, 2005.

On-line registration for first year students will take place on August 31, 2005.

(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?

The Add period* is the first 10 class days of the semester. The Add period will begin on September 1, 2005 and end on September 15, 2005. 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 1 and end November 8, 2005. 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.

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 15, 2005. 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.

How do I Register?

1. Log into the Web Registration system at <https://sis.olin.edu> .
2. Click the “For Students” Button on the bottom and enter the secure connection using your username and password.
3. Make sure your “Set Options” are selected for **FALL 2005**. This can be done from the **MAIN** page at the bottom of the screen.
4. Select the **Registration** option from the directory structure on the left frame of the web page.
5. You will only be able to enter registration if it is (1) during your assigned time block; (2) if you are cleared by your adviser; and (3) if you do not have a hold due to financial obligations.
6. Enter the course number and the section of your choice and click **Add**. (For course numbers and sections refer to the course listing in this booklet.)

Note: Course numbers have no space between the letter and the number. Sections numbers are two digits with a leading zero if necessary – e.g. section one is 01.)

7. Confirmation Messages appear above the schedule in the **blue bar**. If you are not successful with an add function (due to a conflict or a full course), try another course and/or section. If you make a mistake, you can **Drop** the confirmed course and **Swap** it for another by using the **Swap** option. To use the swap option, select a course to “drop” and then enter the course number and section that you want to swap for it. You can also drop courses by selecting the radial button next to the course and clicking the “drop” key. You can only drop one course at a time. When you are finished, close the browser.

Fall 2005 Supplement to Current Course Catalog

Degree requirements are outlined in the 2004-05 Course Catalog (the 2005-06 catalog should be available soon and can also be found at <http://star.olin.edu>. You may view the on-line catalog at http://www.olin.edu/academics/pdf/course_catalog_04_05.pdf

Course descriptions can also be found in the 2004-05 catalog. Courses for Fall 2005 (and some for Spring 2006) that have been approved after the catalog printing are listed below.

AHSE 0112

The Olin Conductorless Orchestra

Instructor(s): Dabby

Credits: 0-0-1-0

Hours: 2-0-1

Pre-requisites: Audition

Offered: Fall / Spring semesters

Pass / No Credit Grading Type

The Olin Conductorless Orchestra (OCO)—an ensemble, minus conductor—features instrumentalists in leadership and collaborative roles. Dedicated to orchestral performance in the concerted spirit of chamber music, the orchestra forges individual participation, active listening, and group-motivation into performances that have established it as the only conductorless orchestra of its kind at an American college. The course number 0112, besides being the first four numbers of the Fibonacci series (often associated with music), signifies that a student can participate in OCO for repeated semesters. The number also infers the birthday of Alexander Borodin, Olin's "patron saint" of music—November 12. (A student can apply up to 4 OCO credits to the 28 required credits in AHSE, or can petition to apply up to 4 OCO credits to the AHS concentration. Any additional credits, i.e., more than 4, earned by a student enrolling in OCO will show up as additional AHS credits, but will not count towards satisfying the requisite 28 credits in AHSE.)

AHSE 1140

Culture & Difference: an Anthropological Approach

Instructor(s): Lynch

Credits: 0-0-4-0

Hours: 4-0-8

Pre-requisites:

Offered: Fall 05

This course introduces students to key concepts and methods in cultural anthropology. Cultural anthropology is the study of how humans organize their lives as members of society, and the ways in which they make these lives meaningful. Through readings on such diverse topics as adolescence in Samoa, epilepsy among Hmong-Americans, and McDonald's in Hong Kong, this course will explore contemporary anthropological approaches to three central questions: 1) What is culture? 2) Does "culture" explain why people do what they do and believe what they believe? 3) What fate and value do cultural differences have in today's interconnected world?

AHSE 3130

Advanced Digital Photography

Instructor(s): Donis-Keller

Credits: 0-0-4-0

Hours: 4-0-8

Pre/Co-requisites: AHSE1130 (AHS 1130) Seeing and Hearing; Permission of the Instructor(s)

Offered: Fall 05

In this course students will develop a personal photographic vision and become acquainted with the work of leading contemporary photographers. A critical awareness of the medium of photography and the history of the still photographic image will also be fostered through selected readings, discussions, and visits to galleries and museums. While communication with visual images is paramount, technical issues will be addressed in some depth. For example, there will be instruction and practice with color management methods, advanced Adobe Photoshop, basic bookbinding methods, and lighting techniques. Regular assignments and group critiques will help monitor progress and inspire new directions. The culminating project will be the design and construction of an artist's book by each member of the class.

AHSE 3199

Special Topics in Arts, Humanities and Social Science

Subtitle: Issues in Leadership and Ethics

Instructor(s): Miller; Barefoot

Credits: 0-0-2-0

Hours: 2-0-4

Pre-requisite:

Offered: Fall 05

This course provides an introduction to professional ethics in both an engineering and a business context. Readings will include material on the definition and history of ethics and morality in the US, the definition and development of leadership skills in a professional context, the role of codes of ethics in the professions, and case studies involving the intersection of leadership and ethics. The course will be structured as a seminar, involving guest speakers and interactive case studies. Enrollment will be limited to 10 Olin students and 10 Babson students in the final year of their undergraduate program.

AHSE 3599

Special Topics in Business and Entrepreneurship

Subtitle: Technology and New Ventures

Instructor(s): Schiffman

Credits: 0-0-0-4

Hours: 4-0-8

Pre-requisite: AHSE 1500 or equivalent

Offered: Fall 05

Course concentrates on starting and growing new businesses. There will be a particular focus on technology-based businesses. There are three primary course objectives: 1. To investigate the components, tools, and practices of entrepreneurship, 2. To identify and exercise entrepreneurial skills through classroom debate and assignments, and 3. To introduce students to a variety of entrepreneurial undertakings. Student teams will work as a group over the term to write a business plan for a new, technology related venture.

AHSE 4190

Arts, Humanities, Social Science (AHS) Capstone

Instructor(s): Dabby, Lynch, Martello, Stein

Credits: 0-0-4-0

Hours: 4-0-8

Pre-requisites: Permission of the AHS Committee

Offered: Fall 05 / Spring 06

The AHS Capstone is an advanced, self-designed AHS project that builds upon a student's prior experience in one or more AHS disciplines. All students must complete either an AHS Capstone or an Entrepreneurship Capstone in order to graduate. AHS Capstones must be proposed to the AHS Committee and approved by the end of the academic year prior to the Capstone (in this case, by spring of 2005) except in extenuating circumstances. Additional information on the AHS Capstone is available at <http://projects.olin.edu/ahs/> AHS Capstone students will complete a proposal, a journal, a disciplinary deliverable, an analysis of their deliverable, and a presentation. Class sessions will vary between "plenary" meetings of all students and faculty, small group workshops, and individual meetings. Please contact the AHS Committee at ahs@lists.olin.edu with any questions.

AHSE 4590

Entrepreneurship Capstone

Instructor(s): Bourne; Schiffman

Credits: 0-0-0-4

Hours: 2-0-10

Pre-requisite: Permission of the Instructor(s)

Offered: Fall 05 / Spring 06

The Entrepreneurship Capstone is an advanced, self-designed project that builds upon a student's prior experience in business and entrepreneurship. All students must complete either an AHS Capstone or an Entrepreneurship Capstone in order to graduate. Entrepreneurship Capstones must be proposed to the Entrepreneurship Committee and approved by the end of the academic year prior to the Capstone (in this case, by spring of 2005) except in extenuating circumstances.

Normally, an Entrepreneurship Capstone student will engage in a team or individual project to build and/or execute a plan to bring a new organization, product or service into being. For this reason, a course on Entrepreneurship and New Ventures is normally expected as a prerequisite to enrolling in the Entrepreneurship Capstone. Courses that satisfy this prerequisite include Babson's EPS3501 or EPS3501T and Olin's AHSE 3599 Special Topics in Business and Entrepreneurship: Technology and New Ventures. If you are planning to enroll in the Entrepreneurship Capstone, and have not yet completed this prerequisite, it is strongly suggested you enroll in AHSE 3599.

Class sessions for the Entrepreneurship Capstone will consist of seminar style "plenary" sessions as well as other pedagogical modalities as appropriate. If choosing the Entrepreneurship Capstone track, a student must also complete 8 additional "depth" credits in business or entrepreneurship. The New Ventures course counts for 4 of those credits. Please contact Steve Schiffman with any questions.

ENGR 2420

Introduction to Microelectronic Circuits

Instructor(s): Minch

Credits: 0-4-0-0

Hours: 4-4-4

Prerequisites: ENGR 1120

Offered: Spring 06

This course will cover the design of complementary metal-oxide-semiconductor (CMOS) electronic circuits in the context of modern integrated-circuit technology. The course will include an introduction to the fabrication and operation of metal-oxide-semiconductor (MOS) transistors and to the design and operation of the basic building blocks of both analog and digital integrated circuits. Analog circuit topics will include single-transistor amplifier stages, current mirrors, cascodes, differential pairs, and single-stage operational amplifiers. Digital circuit topics will include the design of complementary CMOS logic gates and latches. Throughout the course, an emphasis will be placed on design-oriented circuit analysis techniques and developing circuit reasoning skills.

ENGR 3220

Human Factors and Interaction Design

Instructor(s): Stein

Credits: 0-4-0-0

Hours: 4-4-4

Prerequisites: ENGR 2250 User Oriented Collaborative Design (required); ENGR 2510 Software Design or other software development experience (recommended)

Fulfills Design Depth requirement

Offered: Fall 05

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

ENGR 3340

Dynamics

Instructor(s): Bingham

Credits: 0-4-0-0 (credit change approved from 2 to 4 beginning 2005-06 academic year)

Hours: 4-4-4

Prerequisites: ENGR 3320 Mechanics of Solids and Structures

Offered: Fall 05

This course contains the analytical and conceptual tools for understanding how mechanical, electrical, and electromechanical systems undergo changes in state. To analyze such systems we will apply both momentum and variational principles to derive the equations of motion. Hands-on demonstrations will illustrate the concepts behind these fundamental tools, and students will work on real-world examples from robotics, vehicle systems, spacecraft, and intelligent-structures. Building on the ability to derive the equations of motion for rigid bodies, we extend the analysis to lumped parameter and continuous systems. This course will deliver generic tools for characterizing linear and non-linear system behavior in the time and frequency domains. The hands-on component of the course will explore the fundamental concepts of system dynamics: system modes (eigenvalues and vectors), spectrum analysis, and time response.

ENGR 3350

Thermodynamics

Instructor(s): Storey

Credits: 0-4-0-0 (credit change approved from 2 to 4 beginning 2005-06 academic year)

Hours: 4-4-4

Prerequisites:

Offered: Fall 05/ Spring 06

ENGR 3370

Controls

Instructor(s): Bingham

Credits: 0-4-0-0

Hours: 4-0-8

Prerequisites: ENGR 3340

Offered: Spring 06

This course explores the techniques for changing the dynamics of a system using feedback control. The first portion of the course covers methods for analyzing the open-loop dynamics of generic systems in the frequency-domain (transfer functions) and time-domain (state-space equations). Then we will develop feedback techniques for shaping the system response. Students completing this course will have the analytical tools for controller design (both classical and modern) as well as a fundamental understanding of the concepts behind feedback control (stability, performance, controllability, observability, etc.). Students will have ample opportunity to experiment with control design by implementing their own designs in analog and digital hardware. Examples from field robotics, aircraft, and intelligent-structures will be used for both in-class and hands-on demonstrations.

ENGR 3380**Design for Manufacturing**

Instructor(s): Staff

Credits: 0-4-0-0

Hours: 4-0-8

Prerequisites: ENGR 2250

Offered: Spring 06

This course will provide a comprehensive overview of product design for manufacturability including design principles, strategies for material selection and optimal process selection. Techniques will be presented to optimize product components for machining, casting, molding, sheet metal working and inspection. Design for assembly principles will be covered for streamlining the general assembly process with coverage balanced between manual assembly and robotic and automatic assembly. Student design projects and case studies of existing commercially available products will be incorporated.

ENGR 3425**Analog VLSI**

Instructor(s): Minch

Credits: 0-4-0-0

Hours: 4-4-4

Prerequisites: ENGR 2420 or permission of instructor

(ENGR 2420 pre-req waived for fall 2005)

Offered Fall 05

This course will provide an overview of devices available to analog integrated circuit designers in modern complementary metal-oxide-semiconductor (CMOS) technologies: resistors, capacitors, metal-oxide-semiconductor (MOS) transistors, and bipolar junction transistors. It will cover the transistor-level design of linear analog integrated-circuit modules, such as operational amplifiers and operational transconductance amplifiers as well as layout techniques for analog integrated circuits. Students will work in small teams on a series of projects involving the design of analog integrated circuit modules, culminating in the design of an analog system of moderate complexity, such as a filter or a data converter.

ENGR 3540**Computational Modeling**

Instructor(s): Downey

Credits: 0-4-0-0

Hours: 4-0-8

Prerequisites: ENGR 2510 or equivalent

Offered: Fall 05

The availability of cheap computation has created a new way of understanding the world. Along with experiment and theory, computational modeling provides new tools for analysis, explanation and prediction. This class looks at the history of this revolution and the technology that underlies it. We will survey a range of literature, from the skeptical to the exuberant, and make a critical evaluation of this putative paradigm shift. Students will learn the skills of computational modeling, with an emphasis on discrete and stochastic models, and apply them to problems in a range of fields including engineering and the natural and social sciences. Basic programming ability, in any language, is a prerequisite.

ENGR 3600

Topics in BioEngineering

Instructor(s): Staff

Credits: 0-4-0-0

Hours: 4-4-4

Prerequisites:

Offered: Fall 05

This interdisciplinary course will introduce students to concepts and problems encountered when applying fundamental concepts and quantitative methods in engineering and science to problems in biology and medicine. The breadth of bioengineering will be surveyed, focusing on tools and techniques used by practicing bioengineers, current scientific and technical status, and emerging trends and directions. Topics to be explored include: What is "bioengineering?;" biosignals and bioprocesses as the basis for human physiology and other biological systems; biological & medical imaging; biomaterials; biomechanics; bioinstrumentation; drug development, delivery, and pharmacokinetics; biotechnology; medical devices; emerging technologies such as gene therapy and tissue engineering, and commercializing life science products. The application of experimental, mathematical, and computational tools from biology, chemistry, physics, and math to describe, analyze, and predict the behavior of living systems and solve open-ended design-oriented problems will be practiced. Examples from the Instructor(s)'s experience in academic research and industrial R&D will be used to motivate problem solving and discussion. This course will provide students with the background for subsequent study (e.g., advanced courses and/or independent research) in bioengineering and quantitative biology.

ENGR 3699

Special Topics in Bioengineering

Subtitle: The Interaction of Cells, Tissues and Biological Systems with Materials

Instructor(s): Chachra

Credits: 0-4-0-0

Hours: 4-0-8

Prerequisites: SCI1210; SCI1410

Offered: Fall 05

The body is a harsh environment for synthetic materials; not only is it warm, wet, and salty, but there are enzymes and cells whose function is to identify and destroy anything foreign. Conversely, implanted materials can provoke unexpected responses from biological systems. This course is an overview of biological interactions with materials, with a special emphasis on the role of the *in vivo* milieu on failure in medical devices. Topics will include antigenicity, the mechanical interaction of materials and tissue, the inflammatory response, stress corrosion *in vivo*, and cell-surface interactions, together with emerging fields such as drug delivery and neuron-silicon interactions. Readings will be drawn primarily from the current literature.

ENGR 3710

Systems

Instructor(s): Bingham; Pratt, G.

Credits: 0-4-0-0

Hours: 4-0-8

Prerequisites: Completion of Systems ME core and ECE core requirements, or permission of instructor(s)

Offered: Fall 05

This course introduces students to the art and science of interdisciplinary design. Students analyze the process used to develop example products that required expertise in many areas and creativity and trade-off consideration amongst all. Students learn about overarching principles that enable creators of broad interdisciplinary systems to succeed. Students will also work in teams and take on roles as design specialists in a variety of fields. Each team is given the task to design in detail a hypothetical product that can succeed only if interdisciplinary creativity is fostered and trade-offs are made by every team member, as well as the group as a whole.

ENGR 3830**Phase Transformations in Ceramic and Metallic Systems**

Instructor(s): Stolk
Credits: 0-4-0-0
Hours: 4-4-4
Prerequisites: SCI 1410
Offered: Fall 05

How can two brittle ceramics combine to make a toughened structure? How does a machinable steel transform into a high-strength cutting tool? What drives solid-state reactions in powdered materials? Since properties of alloys and ceramics are largely determined by intrinsic material properties and microstructure, an understanding of phase transformations is essential for materials design and performance optimization. This course focuses on the thermodynamics and kinetics of phase transformations in the bulk and at interfaces and surfaces of multi-component materials systems. Topics include binary and ternary phase equilibria, atomic mobility, transformation kinetics, nucleation and growth, heterogeneous reactions, surface and interfacial energy, diffusional and diffusionless transformations, phase stability, and microstructural development. Examples and laboratory activities highlight fundamental concepts and reinforce the practical importance of phase transformations in engineering ceramics and alloys.

ENGR 4190**Senior Consulting Program for Engineering (SCOPE)**

Instructor(s): Barrett; Chang; Downey, Holt; Linder; Somerville; Townsend; Staff
Credits: 0-4-0-0
Hours: 1-0-11
Prerequisites: must be a senior
Offered: Fall 05 / Spring 06

This course is a requisite for all Olin seniors. It incorporates formal, team-based, year long engineering projects done in conjunction with 10 to 14 external companies. Each project will be executed by a single student team, supported by a dedicated faculty member, in partnership with one of these companies. Each student team will have between 3 and 8 members from the senior class. Students may conduct advanced research, perform market analysis, develop experimental prototypes, design new products or redesign existing products in the execution of this project.

MTH 2199**Special Topics in Mathematics****Subtitle: Cryptology and Coding Theory**

Instructor(s): Spence
Credits: 4-0-0-0
Hours: 4-0-8
Prerequisite: One year College mathematics; or equivalent
Offered: Fall 05 cross-listed with Wellesley College

Cryptology includes the study of both cryptography, the science of developing "secret codes" or ciphers for secure and confidential communication, and cryptanalysis, the breaking of ciphers. Coding theory consists of mathematical techniques for detecting and correcting errors that occur during data transmission. These topics are critical to secure and reliable information exchange, with applications ranging from e-commerce to the transmission of photographs from deep-space to military operations. Through this exploration into the technical, social, and historical aspects of cryptology and coding theory, students will learn and extensively use basic concepts from number theory, finite field and ring theory, matrix algebra, and the software package MAGMA. Highlighted topics include the RSA cryptosystem, digital signatures, DES, linear and cyclic codes, and the coding theory based McEliece cryptosystem. This course is suitable for students with one year of university-level mathematics, or the equivalent; it should also be interesting for upperclassman from a variety of majors.

MTH 3120

Partial Differential Equations (updated description)

Instructor(s): Tilley

Credits: 4-0-0-0

Hours: 4-0-8

Prerequisite: MTH2150; permission of Instructor(s)

Offered: Fall 05

An introduction to the solution methods of partial differential equations that arise in describing a wide variety of problems in engineering, such as in fluid dynamics, elasticity, electromagnetic wave propagation, and transport phenomena. The course begins with the solution of boundary-value problems in ordinary differential equations (Sturm-Liouville theory), and then develops into the fundamentals of Fourier analysis and the solutions to the heat, wave, and Laplace's equations on finite and infinite domains. Additional topics will be addressed at the discretion of the Instructor(s), examples of which include systems of hyperbolic equations, similarity solutions in infinite domains, or a brief introduction to numerical solutions.

MTH 3160

Introduction to Complex Variables

Instructor(s): Tilley

Credits: 4-0-0-0

Hours: 4-0-8

Prerequisite: ICB2, Differential Equations, or permission of Instructor(s)

Offered: Spring 06

This course provides an introduction to the analysis of functions in the complex plane. Topics include the Cauchy-Riemann equations, conformal mapping, Cauchy-Goursat theorem, Taylor-Laurent series, the residue theorem, Nyquist criterion, continuation of analytic functions, and applications in science and engineering.

SCI 3130

Advanced Classical Mechanics

Instructor(s): Zastavker

Credits: 4-0-0-0

Hours: 4-0-8

Prerequisite: 1 year of physics; vector calculus, ordinary differential equations, and linear algebra

Offered: Fall 05

Classical mechanics revisited with the use of mathematical formulation that makes the "old and dusty" Newton's laws shine in all their beauty. Using differential equations and linear algebra tools, we will venture to look at things only hinted at in introductory physics: variational principles, the two-body problem, motion in accelerated frames, rigid body dynamics, oscillations, Lagrangian and Hamiltonian mechanics, continuum mechanics, non-linear dynamics, and chaos.

SCI 3210

Human Molecular Genetics in the Age of Genomics

Instructor(s): Donis-Keller

Credits: 4-0-0-0

Hours: 4-0-8

Pre-requisite: SCI1210 (Olin); BISC219 (Wellesley); or permission of the Instructor(s).

Offered: Fall 05

It is now understood that many, if not the majority, of human disorders, including cancers, have an underlying genetic component. In this modern age of healthcare, we are expected to choose amongst an array of therapeutic options for ourselves and for our children rather than respond to specific directives from the medical establishment. In addition, we are called upon as voting citizens to make ethical decisions, e.g. the appropriateness of stem cell cloning. Therefore, it is in the interest of each person to learn more than the fundamentals of biology and genetics in order to make educated choices.

In this course we will be concerned with the traditional concepts of human genetics including pedigree analysis, linkage mapping, Mendelian, multi-locus and complex traits, and genetic testing. However, for the most part, the course will view human genetics through a molecular lens. For example, the molecular basis of pathological conditions such as Huntington's disease, hypercholesterolemia, Fragile-X and others will be examined in detail, as will gene imprinting and imprinting-related abnormalities (e.g. Angelman and Prader-Willi syndromes). Comparative genomics will be applied to the study heritable traits in humans. The structure, function, and evolution of the sex chromosomes will also receive special attention. Gene therapy, cloning (stem cell, germ line) and the associated ethical issues will be considered in some depth. Students who are interested in bioengineering or medical school should find this course useful as well as those who have a general interest in the human as an organism.

Other Registration Opportunities or Notes

MEC 1000

Fundamentals of Machine Shop Operations

Instructor(s): Anderson

Credits: 4 Non Degree (will not meet degree requirements)

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.

Recommended Babson College Business and Entrepreneurship classes for Olin College students who have completed AHSE 1500 or FND 2610: Foundations of Business and Entrepreneurship.

(Contact Steve Schiffman for questions or further information.)

Entrepreneurship

EPS3501 or EPS3501T Entrepreneurship and New Ventures (T = Technology emphasis)

EPS3580 Marketing for Entrepreneurs

EPS3511 Financing Entrepreneurial Ventures

EPS3525 Entrepreneurship Comes of Age: Introduction to Social Enterprise Management

Marketing

MKT 3560 Developing and marketing new products

MKT 3510 Marketing research

MKT 3520 Business to Business marketing and managing sales

MKT 3550 Consumer behavior

Management

MOB 3530 Managing Contemporary Ethical Issues

MOB 3510 Service Strategy and Innovation

MOB 3572 Management Communication

MOB 4571 Strategic Decision making

MOB 3560 International Business Systems

Recommended Babson College Business and Entrepreneurship classes for Olin College students who have completed AHSE 1500 or FND 2610: Foundations of Business and Entrepreneurship ... Continued ...

Finance

Olin students are permitted to enroll in any undergraduate finance course offered at Babson. The only stipulation is that the chair of the finance division be notified so that both the course Instructor(s) and the Olin student can be prepared. The current chair of the finance division is professor Mark Potter. That being said, here is a list of courses most likely to be of interest to Olin students. First-person commentary provided by the Babson finance faculty:

1. Options and Futures. While this is our most advanced course, it is probably the most “engineering” like of all of our offerings. Most students with a minimum understanding of time value of money should be able to understand this. It is a very useful way of thinking about the world. On the other hand, it is probably the least helpful course for a student about to open a business. Thus, it is the easiest to access for engineering students, the most advanced (will make them in high demand for certain finance jobs), but not helpful for understanding budgets. Accounting is irrelevant here, so the lack of a prerequisite is not an issue.
2. Markets and Instruments: This is one of our easier courses – it is a survey course that covers how markets work. Will give students a deeper understanding of the how markets work – not as good on helping with understanding budgets. Again, no accounting needed. Good survey course to understand general finance with some “engineering”-like topics (bond valuation and duration).
3. Security Valuation: Our best, all-round course. Some knowledge of accounting needed, but the Olin students could learn it from one chapter in a day if they just tried to do so. Overall, the most useful course in finance. If you can value a security, you can value anything.
4. Corporate Financial Management: Very good, more budget based course. Accounting more needed here. But, most students will work in corporations and will ask for big expenditures – this will help explain what happens and how they are analyzed. Significant accounting needed, but still, the Olin students are smart enough to pick it up. This course is the least like engineering in the group.
5. Investments: OK, this is very engineering like, and rather cool. Again, many engineers who go to banks or Wall Street do this kind of thing. Not any accounting (or barely any). Good way to understand finance concepts – not useful for making budgets, but useful for a way of thinking.

New Babson Course on Product Design and Development:

Course No: MOB3578 Section: 01 Instructor(s): Sabin, Paul
Undergraduate Credits: 4.00
Days: MW Times: 3:25PM- 5:00PM

Start Date: Aug 31, 2005 End Date: Dec 15, 2005

This integrated management and marketing course provides students with a solid field based understanding of the fundamentals of conceiving, evaluating, developing and launching successful new products. Teams of students are assigned actual product design projects that are carried out in collaboration with participating client companies. The course deals with three key areas: capturing and defining customer needs, understanding and implementing good industrial design principles, and structuring and managing the development process. While the main focus is on manufactured products, the course also addresses the design of services and software products. Guest speakers and visits to design firms are part of the course.

List of Possible Spring 2006 Course Offerings

Semester	Area	Course Number	Course Title	Credits
SPRING	AHS	AHSE 21XX	Science Fiction / Historical Content	2
SPRING	AHS	AHSE 21XX	Six Books that Changed the World	2
SPRING	AHS	AHSE 4190	AHS Capstone	4
SPRING	AHS	AHSE 4190	AHS Capstone	4
SPRING	AHS	AHSE 4190	AHS Capstone	4
SPRING	AHS	AHSE 4190	AHS Capstone	4
SPRING	DSN	ENGR 2250	User Oriented Collaborative Design	4
SPRING	DSN	ENGR 3210	Sustainable Design	4
SPRING	EI	AHSE 1500	Foundations of Business and Entrepreneurship	4
SPRING	EI	AHSE 4590	EI Capstone	4
SPRING	E:Bio	ENGR 36XX	BioE Course	4
SPRING	E:C	ENGR 2510	Software Design	4
SPRING	E:C	ENGR 3520	Foundations of Computer Science	4
SPRING	E:C	ENGR 3520a	Foundations of Computer Science Project - Optional	2
SPRING	E:MS	ENGR3820	Failure Analysis and Prevention	4
SPRING	ECE	ENGR 2410	Signals and Systems	4
SPRING	ECE	ENGR 2420	Introduction to Microelectronic Circuits	4
SPRING	ECE	ENGR 3430	Digital VLSI	4
SPRING	ECE	ENGR 3440	Modern Sensors	4
SPRING	ECE	ENGR X4XX	ECE Elective	4
SPRING	ENGR	ENGR 2210	Principles of Engineering	4
SPRING	ENGR	ENGR 4190	Senior CO nulting Program for E ngineering (SCOPE)	4
SPRING	ENGR	ICB2 / ENGR 1120	Engineering of Spatially Distributed Systems	3
SPRING	ENGR	Tech Self Study	Technical Self Study	4
SPRING	ME	ENGR 3320	Mechanics of Solids and Structures	4

List of Possible Spring 2006 Course Offerings Continued

Semester	Area	Course Number	Course Title	Credits
SPRING	ME	ENGR 3330	Mechanical Design	4
SPRING	ME	ENGR 3350	Thermodynamics	4
SPRING	ME	ENGR 3360	Intermediate Fluid Dynamics	4
SPRING	ME	ENGR 3370	Controls	4
SPRING	ME	ENGR 3380	Design for Manufacturing	4
SPRING	ME	ENGR 3390	Robotics	4
SPRING	MTH	ICB2 / MTH 1120	Vector Calculus	2
SPRING	MTH	MTH 2120	Linear Algebra	2
SPRING	MTH	MTH 2130	Probability and Statistics	2
SPRING	MTH	MTH 2140	Differential Equations	2
SPRING	MTH	MTH 3140	Error Control Codes	4
SPRING	MTH	MTH 3150	Numerical Methods and Scientific Computing	4
SPRING	MTH	MTH 3160	Introduction to Complex Variables	4
SPRING	MTH	MTH 31XX	Nonlinear Dynamics and Chaos	4
SPRING	SCI	ICB2 / SCI 1120	Physics: Electromagnetism and Waves	3
SPRING	SCI	SCI 1210	Principles of Modern Biology with Lab	4
SPRING	SCI	SCI 1410	Principles of Materials Science with Lab	4
SPRING	SCI	SCI 21XX	Biological Thermodynamics	4
SPRING	SCI	SCI 2320	Organic Chemistry with Lab	4
SPRING	SCI	SCI X1XX	Relativity	2
SPRING	SCI	SCI X1XX	High Energy Astrophysics	2

FA05 Course Listing 17Aug05

Area	Course #	Sec #	Course Title	Instructors	Credits	Time	Location (tentative)	Enroll Limits	Note
AHS	AHSE 0112	01	The Olin Conductorless Orchestra	Dabby	1	R 6:45-9:00p	AC305	none	Audition Required; See Description
AHS	AHSE 1100	01	History of Technology:A Cultural and Contextual Approach	Martello	4	TR 10-11:50a	AC218	15	AHS Foundation
AHS	AHSE 1101	01	History and Society	Bruyneel	4*	TR 8:15-9:30a; R 11:30-12:30p	AC326	8	AHS Foundation
AHS	AHSE 1101	02	History and Society	Bruyneel	4*	TR 9:45-11:00a; R 11:30-12:30p	AC326	7	AHS Foundation
AHS	AHSE 1102	01	Arts and Humanities	Colletta	4*	TR 9:45-11:00a; R 11:30-12:30p (AC326)	at Babson	15	AHS Foundation
AHS	AHSE 1122	01	The Wired Ensemble - Instruments, Voices, Players	Dabby	4	TR 10-11:50a	AC305	15	AHS Foundation
AHS	AHSE 1140	01	Culture & Difference: an Anthropological Approach	Lynch	4	TR 10-11:50a	AC213	15	AHS Foundation
AHS	AHSE 3130	01	Advanced Digital Photography	Donis-Keller	4	TF 10-11:50a	AC313	10	
AHS	AHSE 3199	01	Special Topics in Arts, Humanities and Social Sciences: Issues in Leadership and Ethics	Miller; Barefoot	2	M 6-8:00p	CC209	10	
AHS	AHSE 4190	01	AHS Capstone	Martello; Lynch; Stein; Dabby	4	MR 3-4:50p	AC109	40	
DSN	ENGR 1200	01	Design Nature	Linder; Eris; Staff	4	MWR 4-5:50p	AC204	25	
DSN	ENGR 1200	02	Design Nature		4	MWR 4-5:50p	AC206	26	
DSN	ENGR 1200	03	Design Nature		4	MWR 4-5:50p	AC209	26	
DSN	ENGR 3220	01	Human Factors and Interaction Design	Stein	4	TF 1-2:50p	AC318	25	
E!	AHSE 1500	01	Foundations of Business and Entrepreneurship	Bourne; Schiffman	4	MR 10-11:50a	AC328	36	
E!	AHSE 3599	01	Special Topics in Business and Entrepreneurship: Technology and New Ventures	Schiffman	4	TF 1-2:50p	AC328	20	
E!	AHSE 4590	01	Entrepreneurship Capstone	Bourne; Schiffman	4	R 3-4:50p	AC302	10	
E:BE	ENGR 3600	01	Topics in BioEngineering	Sieminski	4	TF 10-11:50a	AC417	25	
E:BE	ENGR 3699	01	Special Topics in Bioengineering: The Interaction of Cells, Tissues and Biological Systems with Materials	Chachra	4	MR 1-2:50p	AC213	25	
E:C	ENGR 1510	01	Introductory Programming	Downey	2	TR 3-3:50p	AC328	30	full semester course
E:C	ENGR 2510	01	Software Design	Wessler	4	MR 10-11:50a; W 4-6:50p	AC417	25	
E:C	ENGR 3540	01	Computational Modeling	Downey	4	MR 10-11:50a	AC113	25	
E:MS	ENGR 3830	01	Phase Transformations in Ceramic and Metallic Systems	Stolk	4	MR 10-11:50a	AC413	25	
E:SYS	ENGR 3710	01	Systems	Bingham; Pratt, G	4	TF 10-11:50a	AC304	25	
ECE	ENGR 3410	01	Computer Architecture	Chang	4	MR 10-10:50a; W 1-2:50p	AC304	25	

Area	Course #	Sec #	Course Title	Instructors	Credits	Time	Location (tentative)	Enroll Limits	Note
ECE	ENGR 3420	01	Introduction to Analog and Digital Communications	Mur-Miranda	4	TF 9-9:50a; W 9-10:50a	AC304	25	
ECE	ENGR 3425	01	Analog VLSI	Minch	4	MR 9-9:50a; T 3-4:50p	AC304	25	
ENGR	ENGR 2210	01	Principles of Engineering	Minch; Anderson	4	TF 10-11:50a	AC306	28	
ENGR	ENGR 2210	02	Principles of Engineering	Minch; Anderson	4	TF 1-2:50p	AC306	28	
ENGR	ENGR 4190	01	Senior COnsulting Program for Engineering (SCOPE)	Linder; Townsend; Downey; Chang; Somerville; G. Pratt; Staff	4	T 12-12:50p		10	Seniors Only; Choose Any section
ENGR	ENGR 4190	02	Senior COnsulting Program for Engineering (SCOPE)		4	T 12-12:50p		10	
ENGR	ENGR 4190	03	Senior COnsulting Program for Engineering (SCOPE)		4	T 12-12:50p		10	
ENGR	ENGR 4190	04	Senior COnsulting Program for Engineering (SCOPE)		4	T 12-12:50p		10	
ENGR	ENGR 4190	05	Senior COnsulting Program for Engineering (SCOPE)		4	T 12-12:50p		10	
ENGR	ENGR 4190	06	Senior COnsulting Program for Engineering (SCOPE)		4	T 12-12:50p		10	
ENGR	ENGR 4190	07	Senior COnsulting Program for Engineering (SCOPE)		4	T 12-12:50p		10	
ENGR	ENGR 4190	08	Senior COnsulting Program for Engineering (SCOPE)		4	T 12-12:50p		10	
ENGR	ENGR 4198	01	Olin Self Study		Staff	2-4	M 3-3:50p	AC326	
ENGR	ENGR 4198	02	Olin Self Study	Staff	2-4	T 3-3:50p	AC326	18	
ENGR	ENGR 4198	03	Olin Self Study	Staff	2-4	W 3-3:50p	AC326	18	
ENGR	ENGR 4198	04	Olin Self Study	Staff	2-4	R 3-3:50p	AC326	18	
ICB	ICB1 / ENGR 1110	01	Modeling and Control of Compartment Systems	Pratt, G; Storey	3	M 11-11:50a; F 1-2:50p	M OC120; AC126	25	
ICB	ICB1 / ENGR 1110	02	Modeling and Control of Compartment Systems	Pratt, G; Storey	3	M 11-11:50a; M 1-2:50p	M OC120; AC126	26	
ICB	ICB1 / ENGR 1110	03	Modeling and Control of Compartment Systems	Pratt, G; Storey	3	M 11-11:50a; R 1-2:50p	M OC120; AC126	26	
ICB	ICB1 / MTH 1110 & SCI 1110	01	Calculus & Physics: Mechanics	Geddes; Somerville; Tilley; Christianson	2;3	MF 9-10:50a; MR 1-2:50p	OC120; AC204	25	
ICB	ICB1 / MTH 1110 & SCI 1110	02	Calculus & Physics: Mechanics		2;3	MF 9-10:50a; W 9-10:50a; F 1-2:50p	OC120; AC206	26	
ICB	ICB1 / MTH 1110 & SCI 1110	03	Calculus & Physics: Mechanics		2;3	MF 9-10:50a; W 9-10:50a; F 1-2:50p	OC120; AC209	26	
ME	ENGR 3310	01	Transport Phenomena	Townsend	4	TF 10-10:50a; W 4-5:50p	AC113	30	
ME	ENGR 3330	01	Mechanical Design	Barrett	4	M 1-2:50p; R 12-2:50p	AC309	25	

FA05 Course Listing 17Aug05

Area	Course #	Sec #	Course Title	Instructors	Credits	Time	Location (tentative)	Enroll Limits	Note
ME	ENGR 3340	01	Dynamics	Bingham	4	TF 9-9:50a; W 9-10:50a	AC218	25	
ME	ENGR 3350	01	Thermodynamics	Storey	4	MR 9-9:50a; W 1-2:50p	AC309	25	
MTH	MTH 2110	01	Discrete Math	Spence	4	MR 1-2:50p	AC328	30	ECE requirement
MTH	MTH 2120	01	Linear Algebra	Moody	2	MR 8-9:50a	AC109	36	Session I
MTH	MTH 2130	01	Probability and Statistics	Moody	2	MR 8-9:50a	AC109	36	Session II
MTH	MTH 2140	01	Differential Equations	Moody	2	TF 8-9:50a	AC109	36	Session I
MTH	MTH 2199	01	Special Topics in Mathematics: Cryptology and Coding Theory	Adams	4	MWR 9:50a-11:00a;at Wellesley	Wellesley	3	Taught At Wellesley
MTH	MTH 3120	01	Partial Differential Equations	Tilley	4	MR 10-11:50a	AC318	25	
SCI	SCI 1210	01	Principles of Modern Biology with Lab	Pratt, J	4	TF 1-2:50p; T 3-5:50p	AC417; AC406	25	
SCI	SCI 1310	01	Introduction to Chemistry	Staff	4	MR 1-2:50; R 3-5:50p	AC417; AC409	18	
SCI	SCI 1410	01	Materials Science and Solid State Chemistry with Lab	Stolk	4	T 3-5:50p; W 1-3:50p	AC413	18	
SCI	SCI 1410	02	Materials Science and Solid State Chemistry with Lab	Christianson	4	MR 3-5:50p	AC413	18	
SCI	SCI 2210	01	Immunology	Pratt, J	4	TF 10-11:50a	AC112	15	
SCI	SCI 3110	01	Modern Physics	Holt	4	MR 1-2:50p	AC113	15	
SCI	SCI 3130	01	Advanced Classical Mechanics	Zastavker	4	MR 1-2:50p	OC273	15	
SCI	SCI 3210	01	Human Molecular Genetics in the Age of Genomics	Donis-Keller	4	TF 1-2:50p	AC213	11	
	AWAY1000	01	Study Away Program		12				Registration Required for those in APPROVED Study
	MEC 1000	01	Fundamentals of Machine Shop Operations	Anderson	4 non-degree	MR 3-5:50p	AC104	tba	

Key:	ENGR / DSN Courses	ME	ECE	ICB or Genl Req	Math	AHSE	SCI											Academic Schedule						
	Mon						Tues						Wed											
8:00	MTH 2120 Linear Algebra Sess I	MTH 2130 Prob Stats Sess II																						
8:50																								
9:00			ENGR 3350 Thermodynamics	ENGR 3425 Analog VLSI																				
9:50																								
10:00	MTH 3120 Partial Diff Equations	AHSE 1500 Found. Of Bus. And E-ship	ENGR 3540 Computational Modeling	ENGR 2510 Software Design	ENGR 3410 Computer Architecture	MTH 2199 Cryptology & Coding MWR 9:50-11a; @Wellesley	ENGR 3830 Phase Transformations Ceramic & Metal Systems																	
10:50																								
11:00																								
11:50																								
12:00	SCOPE												Tues 12-1pm						Open Meeting Time					
12:50	SCOPE												Tues 12-1pm											
1:00	ENGR 3330 Mechanical Design	MTH 2110 Discrete Math	ENGR 3699 Inter Cells, Tissues, Bio Systems w/ Materials	SCI 3110 Modern Physics	SCI 1310 Intro Chemistry	SCI 3130 Adv Classical Mechanics	ICB 1 sec 01 Calc & Physics	ENGR 1110 sec 02 Modeling & Control of Comp Systems	SCI 1210 Prin Modern Bio	SCI 3210 Human Molecular Genetics	AHSE 3599 Spec Topics Bus. & E-ship : New Ventures	ENGR 3220 Human Factors Interaction Design	ENGR 2210 sec 02 Prin of Engineering											
1:50																								
2:00																								
2:50																								
3:00	SCI 1410 sec 02 Materials Science & Solid State Chemistry				AHSE 4190 AHS Captstone		ENGR 4198 -01 Olin Self Study	MEC 1000 Machine Shop Operations	SCI 1410 sec 01 Materials Science & Solid State Chemistry	ENGR 3425 Analog VLSI	SCI 1210 Prin Modern Bio LAB	ENGR 1510 Intro Programming												
3:50																								
4:00		ENGR 1200 section 01, 02, 03 Design Nature																						
4:50																								
5:00																								
5:50																								
6:00	AHSE 3199: Issues in Leadership and Ethics Mondays 6-8:00 pm																							
6:50																								

Thurs										Fri																							
TR 8:15-9:30a										MTH 2140 Diff Equat'ns Sess I																							
AHSE1101 sec 01 History and Society		ENGR 3425 Analog VLSI		ENGR 3350 Thermodynamics		MTH 2120 Linear Algebra Sess I		MTH 2130 Prob Stats Sess II		ENGR 3420 Intro Anal & Dig Comm		ENGR 3340 Dynamics		ICB1: Calc & Physics all sections																			
TR 9:45-11:00										MTH 2199 Cryptology & Coding MWR 9:50-11a; @Wellesley																							
AHSE1101 sec 02 History and Society		AHSE1102 Arts and Humanities		AHSE 1100 TR History of Technology		AHSE 1122 TR Wired Ensemble		AHSE 1140 TR Culture & Difference		AHSE 1500 Found. Of Bus. And E-ship		ENGR 3540 Computational Modeling		ENGR 2510 Software Design		ENGR 3410 Computer Architecture		MTH 3120 Partial Diff Equations		ENGR 3830 Phase Transformations Ceramic & Metal Systems		AHSE 3130 TF Adv Digital Photography		ENGR 3600 Topics BioEngineering		ENGR 3710 Systems		ENGR 3310 Transport Phenomena		ENGR 2210 sec 01 Prin of Engineering		SCI 2210 Immunology	
AHSE1101 and 1102 all sections Writing Lab R 11:30-12:30p										ENGR 3330 Mechanical Design																							
SCI 1310 Intro Chemistry		MTH 2110 Discrete Math		SCI 3110 Modern Physics		ENGR 3699 Inter Cells, Tissues, Bio Systems w/ Materials		ENGR 3330 Mechanical Design		SCI 3130 Adv Classical Mechanics		ICB 1 sec 01 Integ. Course Block MR 1-2:50p		ENGR 1110 sec 03 Modeling & Control of Comp Systems		AHSE 3599 Spec Topics Bus. & E-ship : New Ventures		ENGR 3220 Human Factors Interaction Design		SCI 1210 Prin Modern Bio		SCI 3210 Human Molecular Genetics		ENGR 2210 sec 02 Prin of Engineering		ICB 1 sec 02 and 03 Calc & Physics W 9-10:50a; F 1-11:50p		ENGR 1110 sec 01 Modeling & Control of Comp Systems					
SCI 1310 Intro Chemistry LAB		SCI 1410 sec 02 Materials Science & Solid State Chemistry		ENGR 1510 Intro Programming		ENGR 1200 section 01, 02, 03 Design Nature		AHSE 4190 AHS Captstone		AHSE 4590 Entrepreneurship Captstone (Thurs only)		ENGR 4198 -04 Olin Self Study		MEC 1000 Machine Shop Operations MR 3-5:50p		Community Service																	
AHSE 0112 Olin Conductorless Orchestra 6:45-9:00pm																																	