Spring 2023 Supplement and Course Offerings List

Vol21No3 (January 12, 2023)

Information Contained In this Document:

- 1) Schedule of Deadlines: Add/Drop; Pass/No Credit; Withdraw
- 2) Cross-Registration Deadlines and Instructions
- 3) Registration Special Notes/Updates
- 4) Catalog Supplement (experiments, new courses, or special topics)
- 5) Course Offerings List
- 6) Course Offerings Grid

1) Schedule of Deadlines: Add/Drop; Pass/No Credit; Withdraw

| Session | Add | Drop and Pass/No Credit | Withdraw |
|-----------------------------------|------------------|-------------------------|---------------|
| Full Semester (Jan 19 – May 1) | February 1, 2023 | March 31, 2023 | May 1, 2023 |
| Session I (Jan 19 – Mar 7) | January 25, 2023 | February 21, 2023 | March 7, 2023 |
| Session II (Mar 9 – May 1) | March 24, 2023 | April 14, 2023 | May 1, 2023 |

2) Cross-Registration Deadlines and Instructions

Click **HERE** for Cross-Registration FAQ

| | Babson | Brandeis | Wellesley | | | |
|--------------------------------|----------------------------------|--------------------|--------------------------------|--|--|--|
| Cross-registration open period | 11/21/22 - 1/23/23 4:30PM EST | 11/21/22 - 1/30/23 | 11/21/22 – 2/3/23, 11:59PM EST | | | |
| First day of classes | 1/17/23 | 1/17/23 | 1/23/23 | | | |
| Drop deadline | 1/23/23 | 4/3/23 | 2/17/23, 11:59PM EST | | | |
| Withdrawal Deadline | 3/29/23, 4:30PM EST | 5/2/23 | 5/3/23, 5:00PM EST | | | |
| Last day of Classes | 4/26/23 | 5/2/23 | 5/3/23 | | | |
| Finals Period | 5/1/23- 5/5/23 | 5/2/23 – 5/16/23 | 5/8/23 – 5/11/23 | | | |

Questions? Contact the Registrar's Office at Olin College, registrar@olin.edu.

3) Registration Notes/Updates

Cancelled:

ENGR3370: Controls – Cancelled due to low enrollment

Time Changes:

MTH3120: Partial Differential Equations: Time Change – now running 3:40pm – 5:20pm on M/R

AHSE2199: Writing Gets Real: *Time* Change – now running 1:00pm-2:40pm on T/F

Course Schedule Blocks:

Course blocks are 100-minutes, with 10 minutes between blocks and a common one-hour lunch block for the Olin Community! Blocks between 8:30am to 5:30pm are on Monday/Thursday, Tuesday/Friday patterns; Evening blocks, 6pm-8:40pm are on Monday/Wednesday and Tuesday/Thursday patterns.

Curriculum Category in the Offerings List (pdf):

This will help you know what the offering typically corresponds to for specific degree requirements. This column should also help Engineering degree students with flexible concentrations understand the generalized topic track of a particular course. Additionally, sometimes these categories change as Olin changes so be sure to reference them and to inquire if you have questions. Use these as a guide. Use the catalog for further information (information can be found in degree requirements or in specific course descriptions).

Thesis Option

A reminder for students and advisers that Olin has a year-long Thesis Research Option available to students working with faculty mentors. The program provides an opportunity for students to conduct advanced research work over a duration of 2 consecutive semesters that culminates in a written thesis document. Enrollment in the thesis option is by faculty mentor approval. Students would register for an ISR-G: "Thesis Research" in Semester 1, and ISR-G: "Thesis" in Semester 2, for 4 credits per semester.

More information can be found at: https://olin.smartcatalogiq.com/2022-23/catalog/programs-of-study-and-degree-requirements/other-academic-programs-and-opportunities/research-thesis/

ME Core Update

Two of the ME core courses, Thermodynamics and Transport Phenomena, are being delivered differently than what is described in the catalog.

- o Each topic is being taught in 2-credit segments. The intro segments were offered in the fall. The intermediate segments will be offered in the spring.
- o Introduction to Thermodynamics + Intermediate Thermodynamics, in combination, are a designated alternative for ENGR2350 Thermodynamics
- o Introduction to Transport Phenomena + Intermediate Transport Phenomena, in combination, are a designated alternative for ENGR3310 Transport Phenomena

Waitlists for Courses with Two Numbers:

If you want to join a waitlist for **Six Microbes** (AHSE2150/SCI1250), **IBAT** (AHSE2160/SCI1260, or **Data Science** (ENGR3531/MTH2131) please email registrar@olin.edu after you register. We will maintain a waitlist as the system does not allow waitlists for courses with two numbers.

What is a cross-listed course?

There is one cross-listed course in Spring 2023: **Biomimicry** (ENGR3232 or SCI2235):

- > Choose ENGR3232 for Design Depth credit, or
- Choose SCI2235 for ADV SCIENCE credit

Cross-listing is a term associated with two distinct course numbers for a single academic activity. The activity can be defined under two topics depending on what aspect of the course content a student focuses on during their enrollment. To this end, the student elects the path at the beginning of the course (no later than the last day to add) by selecting the appropriate course number. The distinction is important because it could frame your project and impact how your experience works toward completing a requirement.

4) Catalog Supplement

Degree requirements and course requisites are outlined in the Course Catalog

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

New, Updated, and Special Topics Courses

CIE2223M: Curricular Innovation Prototype:

K12 Outreach: Mathematics and Engineering for Everyone

Instructor(s): Sarah Spence Adams, Rob Martello, Mark Somerville

Credits: 4
Hours: 4-2-6

Registration Notes:

- > To elect Design Depth credit: students must have taken Collaborative Design in a previous semester or register for this course AND Collaborative Design (co-requisites) this spring.
- > Students must also enroll in one of two labs: CIE MEE: Lab A: M 3:31pm-5:30pm or Lab B: W 3:31pm 5:30pm

Course Description: Would you thrive in an impact-centered course that allows you to dedicate your time to making a difference in the lives of adolescent learners? Are you concerned about inequities within educational systems and the lingering negative impacts of online/hybrid schooling? Could you light a fire of interest and increase confidence in students who aren't yet excited about the power of mathematical thinking or engineering design? If you answered yes to any of these classes, please consider joining us in "K12 Outreach: Mathematics and Engineering for Everyone," a new impact-centered course wherein Olin students will design, develop, and deliver math/engineering workshops/activities in partnership with adolescent learners, primarily elementary school students. Our nearby partner schools and after-school organizations are still being finalized, and they are being chosen to ensure that our efforts will reach students from backgrounds that have been historically excluded from higher education and/or employment in STEM-related fields. Theories of educational design and human-centered design concepts will guide our work throughout the class.

Students enrolling in this course may elect 4 credits in any combination of MTH, ENGR, and/or AHS. The 4 credit ENGR option can count as a Design Depth for students who have taken or are taking (UO)CD. Credit allocations will be finalized mid-semester based on students' work. Students must enroll in a "lab" section Monday or Wednesdays 3:31-5:30pm, which is when students will often be traveling off campus to engage with younger learners. Due to traffic and other complications, students may get back to Olin slightly after 5:30pm but in time for 6pm classes. If you have a problem with a lab time, please contact sarah.adams@olin.edu

CIE2223E: Curriculum Innovation Prototype:

Environmental Consulting at Olin (ECO)

Instructor(s): Carrie Nugent, Claire Rodgers

Credits: 4 Hours: 4-0-8

<u>Registration Notes:</u> Open to all students. To elect Design Depth credit: students must have taken Collaborative Design in a previous semester or register for ECO AND Collaborative Design (co-requisites) this spring. Previous students can enroll again- this is a class that can be taken multiple times. First years cannot enroll for E:Sust Adv credit.

<u>Course Description:</u> Did you know Olin is a major greenhouse gas polluter? Per capita, Olin emits more CO2 than other colleges. Let's fix that! In ECO, you'll learn how to calculate greenhouse gas emissions, where Olin's emissions come from, and you'll help reduce our emissions via a semester-long project. We welcome your questions! Email instructors Claire (Claire.Rodgers@olin.edu) and Carrie (cnugent@olin.edu).

CIE2223P: Curriculum Innovation Prototype:

Social Technology Enterprise with Purpose (STEP)

Instructor(s): Alessandra Ferzoco, Paul Ruvolo

Credits: 12

<u>Registration Notes:</u> Students must also enroll in one of two labs: CIE_STEP: **Lab A**: MR 1:00pm-2:40pm <u>or</u> **Lab B:** TF 2:50pm-4:30pm; Experimental Grading

<u>Course Description:</u> In STEP you'll work alongside the teaching team (Paul Ruvolo and Alessandra Ferzoco, with special appearances by Sam Michalka) and community partners to create a wearable computing technology that is designed with purpose, privacy, aesthetics, and accessibility in mind. STEP is a part of Olin's new impact centered educational model. We'll be building on ideas and technology platforms developed in STEP 2022 and continuing to learn together how to design impact-centered courses. We hope you'll consider joining us for the next phase of STEP technology development and this next phase of Olin's educational model.

- STEP fulfills a flexible set of graduation requirements
- STEP is a part of Olin's new strategic plan
- We will explore tech, accessibility (engineering 4 everyone), and financial models
- Our project area of creating an augmented reality device for folks who are blind leverages smartphone hardware and existing apps (e.g., for navigation, object recognition, document reading) to reduce barriers and increase equity. We will also be creating our own apps and custom hardware.
- We are partnering with the Perkins School for the Blind's Innovation Center
- Folks who are blind will be involved in running the course and co-designing the technology

AHSE2199: Special Topics in Arts, Humanities and Social Science:

Writing Gets Real

Instructor(s): Gillian Epstein

Credits: 2 Hours: 4-0-8

Registration Notes: Session I

Course Description: Wonder how to write an email to someone you don't know on LinkedIn that will get a response? Cover letters making you run for cover? Wish your online bio did you justice? Want to write a business plan, application essay, or scholarship essay that makes your reader pay attention? Then come join an exciting new 6-week adventure focused on upping your game in day-to-day professional writing that can open doors and create connections. Each week will feature a fundamental and concrete professional writing challenge (emails, cover letters, bios...); specific writing skills and habits of mind that will make your writing stand out; a fun and focused writing assignment embedded in your real-world practice; and specific expertise and examples from one or more additional teaching partners, including Olin Alum and Trustee Lee Edwards, Vice President and Chief of Staff Lauren Taaffe, Library Director Callan Bignoli, and more! Come do the writing you know you need with the support you want!

AHSE2199A: Special Topics in Arts, Humanities and Social Science:

Engineering in Context: History, Society, and the Environment

Instructor(s): Rob Martello

Credits: 2 or 4

Course Description: "We shape our buildings; thereafter, they shape us." - Winston Churchill, 1943. Engineering, science, technology, and math are fundamentally human endeavors, socially constructed and society-shaping. The mechanisms of this dialogue between humans, humanity, and the technical world are endlessly complex and eternally fascinating. Each student in this course will select a technical course that you are concurrently taking, and you will explore that course (and the larger STEM discipline) through lenses such as its historical, ethical, environmental, and societal (political, economic...) contexts and implications. We will engage in common readings and projects intended to build a critical thinking toolkit for historical and contextual study, and students will also explore their chosen technical course individually or in small groups.

This is a first-time course offering and in taking it you will help to design and improve how it will operate in the future. This course represents a novel approach towards interdisciplinary integration: you get to choose the course we'll connect with, and all of us will deepen the connection. Join the fun and let's build something exciting!

AHSE2199B: Special Topics in Arts, Humanities and Social Science:

Real World Lessons in Creating Impact

Instructor(s): Gilda Barabino, Gillian Epstein, Leif Jentoft, Lawrence Neeley

Credits: 2 Hours: 3-0-3

<u>Course Description:</u> In this 2-credit course, students will explore the stories of different approaches to marshaling the resources required to create impact, from startups to philanthropic endeavors to political activism. The course will be structured as a seminar, involving guest speakers and interactive case studies.

The faculty and the guest speakers will bring their personal experiences as well as their intellectual understanding of the issues to this discussion. Ultimately your learning from the course will draw on your ability to understand the principles that you can infer from the readings and speakers and on your ability to reflect on what those principles mean for you, your personal and professional development, and your career.

This course is about you, as much as it is about the concepts we discuss. Course activities will include reading, guest lectures from entrepreneurs, philanthropists, business leaders, group discussion and debate, and writing.

ENGR3499: Special Topics in Electrical & Computer Engineering:

Introduction to Power Electronics

Instructor(s): Beat Arnet

Credits: 4
Hours: 4-4-4
Pre-requisite: ISIM
Co-requisite: Circuits

<u>Course Description:</u> In this course, the student will learn the fundamentals of power electronics with a focus on different types of DC-DC converters. The theory is taught in a hands-on fashion through simulation-based analysis and lab work. Topics covered include power converter topologies, selection of power semiconductors, loss modeling, gate driver design, magnetics design, cycle-cycle current control, as well as debugging and testing techniques. Each student will design and realize a power converter, which entails schematic capture, board layout and the manufacture of a custom inductor or transformer.

ENGR3499A: Special Topics in Electrical & Computer Engineering:

Satellite Systems

Instructor(s): Whitney Lohmeyer

Credits: 4 Hours: 3-0-9 Course Description: This course provides students with the opportunity to learn about the multifaceted engineering discipline of satellite systems including both technical theory and policy surrounding most satellite systems. The primary technical areas covered are orbital mechanics and satellite communications design (link budgets, availability, propagation impacts). To gain insight into the policy and regulatory hurdles the satellite industry faces, students will also dive into orbital debris mitigation (understanding the legalities, or lack thereof, of launching and deorbiting spacecraft) and spectrum management (licensing spacecraft through the Federal Communications Commission (FCC) and the International Telecommunications Union (ITU)). Additionally, students will gain insights into industry tools like STK and NASA's Orbital Debris Assessment software and build upon each of the lessons learned throughout the course. Throughout the semester, students will also work on a semester-long, course-based research project combining material in the class to investigate current policy related issues that the industry is facing. These projects will be presented multiple times so that students also have the opportunity to develop technical writing and presentation skills.

ENGR3599: Special Topics in Computing:

Scientific Computing

<u>Instructor(s):</u> Carrie Nugent <u>Credits:</u> 4ENGR or 4SCI

Hours: 4-0-8

Pre-requisite(s): Software Design, or instructor permission

<u>Course Description:</u> Computer models give scientists insight into physical phenomena at all imaginable scales- from subatomic to the size of the universe. They teach us how glass molecules interact, how fireflies and ants organize, how Neptune's core rotates, and how to predict the weather. In this class, you will learn more advanced modeling techniques. You will write more complex code that takes longer to run and will learn to make smart choices when it comes to making things simple, but not too simple. Take this course if you want to know how code works on a fundamental level. If you love installing Python libraries and don't particularly care how they work, this will probably not be a satisfying course for you.

ENGR3599A: Special Topics in Computing:

Advanced Algorithms

<u>Student Instructor(s):</u> Gati Aher, Sam Coleman, Zoe McGinnis <u>Faculty Advisor(s):</u> Rob Martello (pedagogy), Paul Ruvolo (content)

Credits: 4

Registration Notes: This is a student-led course

<u>Pre-requisite(s):</u> Discrete Math recommended but not required

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

SCI1199: Special Topics in Physics:

Electricity and Magnetism

Instructor(s): Andy Neely

Credits: 4 Hours: 4-0-8

<u>Course Description:</u> Electricity and magnetism, including electric charges, forces, and fields, Gauss's Law, potential, electrostatic energy and capacitors, magnetic fields and energy, mutual and self-induction, Ampere's Law, Maxwell's Equations and electromagnetic waves.

Nationwide Eclipse Ballooning Project – ISR/G

- *Can be taken P/NC or graded
- *2-4 credits

Olin College is partnering with the Center for Space Physics at Boston University to field a team for the NASA-funded Nationwide Eclipse Ballooning Project (https://eclipse.montana.edu/). Teams will launch scientific instrumentation via weather balloons into the stratosphere during two solar eclipses: an annular eclipse on Oct. 14, 2023, and a total solar eclipse on April 8, 2024. Students will begin with a background study of past eclipse balloon flights and learn about common platforms and payloads. We'll work with our collaborators to identify specific scientific experiments, then begin to design the mission including selection and integration of sensors, data acquisition and processing systems, and ground station communication hardware with a high-altitude balloon system. This will require integrating mechanical design, electronics, and software/firmware programming. Students will be able to continue with the project in the summer of 2023 as paid interns and travel to the eclipse sites to carry out the missions.

Didn't find the course you're looking for? Check the course browser at https://my.olin.edu/ICS/Course Schedules.jnz

^{*}Could be used to satisfy the advanced ME elective requirement with permission of instructor; or *potentially* count as a Design Depth (if taken as 4cr) – *this is tentative*.

^{*}Faculty advisor: Chris Lee (contact if any questions)

SP23 Course Offerings and Planning.xlsx
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|--|--------------|-------------------------|-----------|---|---|--------------------|----------------------|---------|--------|----------|--|---------------------------------------|--|--|--|
| ### AMERITY OF THE PROPERTY OF | Area | Course # | Sect # | Course Title | | Time | MAC (unless noted | Credits | | Waitlist | Notes | Curriculum Role | | | |
| 1255 O World will Educatory Fig. Des Exact Littling 100 P A P Research Country | AHS | AHSE0112 | 01 | AHSE0112: The Olin Conductorless Orchestra | Dabby, Diana | R 6-8:40pm | | 1 | по сар | N/A | | AHS | | | |
| 1770 | AHS | AHSE2150_SC I1250 | 01 | | | MR 9:20am-12:00pm | | 8 | 24 | 6 | 8 credit course | AHS Elective & SCI - Bio Foundatin | | | |
| ARS ARSE-1100 01 Sonnex Writing Cite Real Clinical Control Con | AHS | AHSE2160_SC I1260 | 01 | AHSE2160_SCI1260: The Intersection of Biology, Art and Technology with Laboratory | Donis-Keller, Helen | TF 9:20am-12:00pm | | 8 | 20 | 5 | 8 credit course | AHS Elective & SCI - Bio Foundatin | | | |
| AHS ELEGINA AHSE21998 01 Social Science Engineering in Context. History, Society, and the Environment of Implementary and Environ | AHS | AHSE2199 | 01 | AHSE2199: Special Topics in Arts, Humanities and Social Science: Writing Gets Real | Epstein, Gillian | TF 1:00pm-2:40pm | 328 | 2 | 26 | 5 | Session I | AHS | | | |
| AHS 2100B 01 Scotal Science Real World Lessons in Creating Impair. AHS 2100B 01 Scotal Science Real World Lessons in Creating Impair. AHS 2100 01 AHS 2100 AHS Science Real World Lessons in Creating Impair. AHS 2100 01 AHS 2100 AHS Capstone Project AHS 2100 01 AHS 2100 AHS Capstone Project Epstein, Gillian NA N/A N/A N/A N/A N/A N/A N/A N/A AHS 2100 AHS 2100 AHS 200 A | AHS | AHSE2199A | 01 | Social Science: Engineering in Context: History, Society, | Martello, Rob | TF 10:20am-12:00pm | 318 | 2 or 4 | 35 | 10 | | AHS Elective | | | |
| AHS AHSEA190 01 AHSEA190: AHS Capstone Project Epstein, Gillian M 2:50pm-5:30pm Library 4 25 5 6 AHSEA190: AHS Capstone Project Epstein, Gillian M 2:50pm-5:30pm Library 4 25 5 6 AHSEA190: AHSEA190: AHSEA190: SCOPE: Senior Capstone Program in Engineering Capstone Program in Percency Alexandra; New Authority Ne | AHS | AHSE2199B | | | Epstein, Gillian; Jentoft, | R 6-8:00pm | 126 | 2 | 18 | 5 | | AHS Elective | | | |
| CAPSTONE ENGR4190 01 ENGR4290: SCOPE: Senior Capstone Program in Engineering Capstone Alternative: Entrepeneurial Engineering Capstone ENGR4590 01 ENGR4590: Senior Capstone Alternative: Entrepeneurial Engineering Capstone ENGR4590 01 ENGR4590: Senior Capstone Alternative: Entrepeneurial Engineering Capstone ENGR4590 01 ENGR4590: Senior Capstone Alternative: Entrepeneurial Engineering Capstone ENGR4590 01 ENGR4590: Senior Capstone Alternative: Entrepeneurial Engineering Capstone ENGR4590 01 ENGR4590: Senior Capstone Alternative: Entrepeneurial Engineering Capstone ENGR4590 01 ENGR4590: Senior Capstone Alternative: Entrepeneurial Engineering Capstone ENGR4590 01 ENGR3235_or_E O1 ENGR3235_or_SCI2235: Biomimicry Huang, Jean; Linder, Engineering Capstone ENGR4590 01 ENGR3235_or_E O1 ENGR3235_or_SCI2235: Biomimicry Huang, Jean; Linder, Engineering Capstone ENGR4590 01 ENGR3235_or_E O1 ENGR3235_BENNETHING Engineering Capstone ENGR4590 01 ENGR3235_or_E O1 ENGR3235_BENNETHING ENGRAPSIONE ENGR4590 01 ENGR3235_or_E O1 ENGR3235_BENNETHING ENGRAPSIONE ENGR4590 01 ENGR4590 Senior Capstone Alternative: Entrepeneurial Engineering Capstone ENGR4590 01 ENGR4590 Senior Capstone Alternative: Entrepeneurial Engineering Capstone ENGR4590 01 ENGR4590 Senior Capstone Alternative: Entrepeneurial Engineering Capstone ENGR4590 01 ENGR4590 Senior Capstone Alternative: Entrepeneurial Engineering Capstone ENGR4590 01 ENGR4590 Senior Capstone Alternative: Entrepeneurial Engineering Capstone ENGR4590 01 ENGR4590 Senior Capstone ENGR4590 Senior Capsto | AHS | AHSE3190 | | | Epstein, Gillian | NA | N/A | 1 | N/A | N/A | | AHS | | | |
| CAPSTONE ENGR4190 01 ENGR4290: Affordable Design and Entrepreneurship Engineering Capstone ENGR4290 01 ENGR4290: Affordable Design and Entrepreneurship Engineering Capstone ENGR4290 01 ENGR4290: Affordable Design and Entrepreneurship Engineering Capstone ENGR4290 01 ENGR4290: Affordable Design and Entrepreneurship Engineering Capstone ENGR4290 01 ENGR4290: Affordable Design and Entrepreneurship Engineering Capstone ENGR4290 01 ENGR4290: Senior Capstone Alternative: Entrepeneurial Engineering Capstone ENGR4290 01 ENGR4290: Senior Capstone Alternative: Entrepeneurial Engineering Capstone ENGR4290 01 ENGR4290: Senior Capstone Alternative: Entrepeneurial Engineering Capstone ENGR4290 01 ENGR4290: Senior Capstone Alternative: Entrepeneurial Engineering Capstone ENGR4290 01 ENGR4290: Senior Capstone Alternative: Entrepeneurial Engineering Capstone ENGR4290 01 ENGR4290: Senior Capstone Alternative: Entrepeneurial Engineering Capstone ENGR4290 01 ENGR4290: Senior Capstone Alternative: Entrepeneurial Engineering Capstone ENGR4290 01 ENGR4290: Senior Capstone Alternative: Entrepeneurial Engineering Capstone ENGR4290 01 ENGR4290: Senior Capstone Alternative: Entrepeneurial Engineering Capstone ENGR4290 01 ENGR4290: Senior Capstone Alternative: Entrepeneurial Engineering Capstone ENGR4290 01 ENGR4290: Affordable Design and Entrepreneurship Engineering Capstone ENGR4290 01 ENGR4290: Affordable Design and Entrepreneurship Engineering Capstone ENGR4290 01 ENGR4290: Affordable Design and Entrepreneurship Engineering Capstone ENGR4290 01 ENGR4290: Affordable Design and Entrepreneurship Engineering Capstone ENGR4290 01 ENGR4290: Affordable Design and Entrepreneurship Engineering Capstone ENGR4290 01 ENGR4290: Affordable Design and Entrepreneurship Engineering Capstone ENGR4290 01 ENGR4290: Affordable Design and Entrepreneurship Engineering Capstone ENGR4290 01 ENGR4290: Affordable Design and Entrepreneurship Engineering Capstone ENGR4290 01 ENGR4290: Affordable Design and Entrepreneurship Engineering Capst | AHS | AHSE4190 | 01 | AHSE4190: AHS Capstone Project | Epstein, Gillian | M 2:50pm-5:30pm | Library | 4 | 25 | 5 | | AHS | | | |
| CAPSTONE ENGR4290 01 ENGR4290: Affordable Design and Entrepreneurship Engineering Capstone Unider, Benjamin; Majluf, Francesca; Taha, Kofi CAPSTONE ENGR4599 01 ENGR4599: Senior Capstone Alternative: Entrepeneurial Engineering Capstone Number of Scott Nu | CAPSTONE | ENGR4190 | | | Ferzoco, Alessandra; Neeley, Lawrence; | | Varied | 4 | 90 | N/A | Students will be pre-registered based on FA22 enrollment | CAPSTONE | | | |
| Cross-listed SCI2235_or_E 01 ENGR3235_or_SCI2235: Biomimicry Huang, Jean; Linder, Benjamin TF 1:00pm-2:40pm 213 4 24 6 DSN Depth or Adv Bio | CAPSTONE | ENGR4290 | | | Johansen, Elizabeth; Linder, Benjamin; Majluf, Francesca; | | | 4 | 20 | 5 | | CAPSTONE | | | |
| Cross-listed SCI2235 or E 01 SCI2235 OR ENCR2325 Rightminuty Huang, Jean; Linder, TE 1:00pm 2:40pm 213 4 24 6 | CAPSTONE | ENGR4599 | | | | W 1-5:00pm | 126 | 4 | N/A | N/A | Students will be pre-registered based on FA22 enrollment | CAPSTONE | | | |
| | Cross-listed | ENGR3235_or _SCI2235 | 01 | ENGR3235_or_SCI2235: Biomimicry | | TF 1:00pm-2:40pm | 213 | 4 | 24 | 6 | | DSN Depth or Adv Bio | | | |
| | Cross-listed | SCI2235_or_E NGR3235 | 01 | SCI2235_OR_ENGR3235: Biomimicry | | TF 1:00pm-2:40pm | 213 | 4 | 24 | 6 | | Adv Bio or Dsn Depth | | | |

SP23 Course Offerings and Planning.xlsx

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| Area | Course # | Sect # | Course Title | Instructor / Teaching Team | Time | Location: MAC (unless noted otherwise) | Credits | Enroll Limits | Waitlist | Notes | Curriculum Role |
|--------|-----------|-----------|---|---|--------------------------------|---|---------|------------------|----------|--------------------|---------------------------------|
| DSN | ENGR2250 | 01-03 | ENGR2250: Collaborative Design | Adler, Jonathan; Bloomer, Sarah; Chachra, Debbie; Hendren, Sara; Linder, Benjamin; Zastavker, Yevgeniya | MR 1:00pm-3:30pm | 204 206 209 | 4 | 96 | 10 | Formerly UOCD | DESIGN Fnd |
| DSN | ENGR3240 | 01 | ENGR3240: Tell the Story of What You Make | Ferguson Sauder, Tim | MR 1:00-3:30pm | 417 | 4 | 25 | 5 | | DESIGN Dpth |
| DSN | ENGR3290 | 01 | ENGR3290: Affordable Design and Entrepreneurship | Graeff, Erhardt; Johansen, Elizabeth; Linder, Benjamin; Majluf, Francesca; Taha, Kofi | T 3:30-6:30pm R 3:30-5:30pm | Weissman Foundry | 4 | 10 | 10 | | DESIGN Dpth |
| E:C | ENGR2510 | 01 | ENGR2510: Software Design | Graeff, Erhardt; Matsumoto, Steve; Millner, Amon | TF 10:20am-12:00pm | 417 | 4 | 25 | 5 | | Core E:C/Core ECE |
| E:C | ENGR2510 | 02 | ENGR2510: Software Design | Graeff, Erhardt; Matsumoto, Steve; Millner, Amon | TF 1:00pm-2:40pm | 318 | 4 | 25 | 5 | | Core E:C/Core ECE |
| E:C | ENGR2510 | 03 | ENGR2510: Software Design | Graeff, Erhardt; Matsumoto, Steve; Millner, Amon | TF 1:00pm-2:40pm | 326 | 4 | 25 | 5 | | Core E:C/Core ECE |
| E:C | ENGR3520 | 01 | ENGR3520: Foundations of Computer Science | Pucella, Riccardo | M 6:00pm-8:40pm | 126 | 4 | 30 | 5 | | Core E:C |
| E:C | ENGR3525 | 01 | ENGR3525: Software Systems | Matsumoto, Steve | TF 2:50pm-4:30pm | 326 | 4 | 35 | 5 | | Core E:C |
| E:C | ENGR3599 | | ENGR3599: Special Topics in Computing: Scientific Computing | Nugent, Carrie | MR 1:00pm-2:40pm | 318 | 4 | 16 | 5 | | Core E:C; Computing Elective |
| E:C | ENGR3599A | | ENGR3599A-SL: Special Topics in Computing: Advanced Algorithms | Ruvolo, Paul (content advisor); Student instructors: Aher, Gati; Coleman, Sam; McGinnis, Zoe | MR 6:00pm-7:40pm | 326 | 4 | 15 | 10 | Student led course | Computing Elective |
| E:ROBO | ENGR3390 | 01 | ENGR3390: Fundamentals of Robotics | Barrett, Dave; Mbanisi, Kene | TF 1:00pm-2:40pm | 128 | 4 | 30 | 10 | | Core E:Robo_ME Elective |
| E:ROBO | ENGR3392 | 01 | ENGR3392: Robotics Systems Integration | Malley, Melinda; Mbanisi, Kene | TF 2:50pm-4:30pm | 306 | 4 | 24 | 5 | | Core E:Robo_ME Elective |

1/12/2023

| | | | | | SP23 Course Offerings and Pla | IIIII B.XISX | | | | | SP23 Offerings List Voi21 |
|-------------------|-----------|-----------|--|---|--|---|---------|------------------|----------|---|---|
| Area | Course # | Sect # | Course Title | Instructor / Teaching Team | Time | Location: MAC (unless noted otherwise) | Credits | Enroll Limits | Waitlist | Notes | Curriculum Role |
| ECE | ENGR2420 | 01 | ENGR2420: Intro Microelectronic Circuits with laboratory | Minch, Brad | MR 8:30am-10:10am M 3:40pm-5:20pm (Lab) | 309 | 4 | 30 | 5 | | Core ECE |
| ECE | ENGR3499 | | ENGR3499: Special Topics in Electrical & Computer Engineering: Introduction to Power Electronics | Arnet, Beat | MR 10:20am-12:00pm | 309 | 4 | 20 | 5 | | ECE Elective |
| ECE | ENGR3499A | | ENGR3499A: Special Topics in Electrical & Computer Engineering: Satellite Systems | Lohmeyer, Whitney | T 6:00pm-8:40pm | 126 | 4 | 20 | 10 | | ECE Elective; or ME Elective |
| ENGR | ENGR1330 | 01 | ENGR1330: Fundamentals of Machine Shop Operations | Mulligan, John | W 10:00am-12:00pm W 1:00pm-3:30pm | Machine Shop | 4 | 6 | 6 | | ELECTIVE |
| ENTRP | AHSE1515 | 01 | AHSE1515: Products and Markets | Bloomer, Sarah; Ger, Donald; Pratt, Joanne; Sauder, Tim | MR 9:20am-12:00pm | MH120 318 326 328 | 4 | 92 | N/A | | ENTRP Fnd |
| ENTRP | AHSE2515 | 01 | AHSE2515: Iterate | Neeley, Lawrence | TF 10:20am-12:00pm | 126 | 4 | 25 | 10 | | ENTRP |
| FYR | ENGR1125 | | ENGR1125: Introduction to Sensors, Instrumentation and Measurement | Goenka, Chhavi; Minch, Brad; Neely, Andy; Vanasupa, Linda | MR 2:50pm-4:30pm | 428 | 4 | 25 | 5 | | Required ENGR |
| FYR | ENGR1125 | 02 | ENGR1125: Introduction to Sensors, Instrumentation and Measurement | Goenka, Chhavi; Minch, Brad; Neely, Andy; Vanasupa, Linda | TF 8:30am-10:10am | 428 | 4 | 25 | 5 | | Required ENGR |
| FYR | ENGR1125 | 03 | ENGR1125: Introduction to Sensors, Instrumentation and Measurement | Goenka, Chhavi; Minch, Brad; Neely, Andy; Vanasupa, Linda | TF 10:20am-12:00pm | 428 | 4 | 25 | 5 | | Required ENGR |
| FYR | ENGR1125 | | ENGR1125: Introduction to Sensors, Instrumentation and Measurement | Goenka, Chhavi; Minch, Brad; Neely, Andy; Vanasupa, Linda | TF 2:50pm-4:30pm | 428 | 4 | 25 | 5 | | Required ENGR |
| Interdisciplinary | CIE2223E | | CIE2223E: Curriculum Innovation Prototype: Environmental Consulting at Olin | Nugent, Carrie; Rodgers, Claire | TF 10:20am-12:00pm | 326 | 4 | 16 | 5 | Previous students can enroll again- this is a class that can be taken multiple times. | E:Sust Adv; Design Depth; alternative for Mat Sci |
| Interdisciplinary | CIE2223M | | CIE2223M: Curriculum Innovation Prototype: K12 Outreach: Mathematics and Engineering for Everyone | Adams, Sarah; Martello, Rob; Somerville, Mark | MR 8:30am-10:10am | 126 | 4 | 30 | 20 | Students must also elect one lab session: Lab A: M 3:31PM-5:30PM Lab B: W 3:31pm-5:30pm | Varied |
| Interdisciplinary | CIE_MEE | A or B | CIE_MEE: Curriculum Innovation Prototype: K12 Outreach Mathematics and Engineering for Everyone | : Adams, Sarah; Martello, Rob; Somerville, Mark | Lab A: M 3:31pm-5:30pm Lab B: W 3:31pm-5:30pm | NA | NA | 15 | 10 | Students must also enroll in CIE2223M | |
| | • | • | • | • | nago 2 of 5 | * | • | | | - | 1/12/2 |

| | | | | | SP23 Course Offerings and Plai | | | | | | SP23 Offerings List Voi2 |
|-------------------|----------------------|-----------------|--|---|--|---|---------|------------------|---------------|--|--|
| Area | Course # | Sect # | Course Title | Instructor / Teaching Team | Time | Location: MAC (unless noted otherwise) | Credits | Enroll Limits | Waitlist | Notes | Curriculum Role |
| Interdisciplinary | CIE2223P | 01 | CIE2223P: Curriculum Innovation Prototype: Social Technology Enterprise with Purpose (STEP) | Ferzoco, Alessandra; Ruvolo, Paul | T 9:00am-12:00pm F 10:20am-12:00pm | 218 | 12 | 18 | 6 | Experimental Grading Students must also elect one lab session: Lab A: MR 1:00pm-2:40pm Lab B: TF 2:50pm-4:30pm | TBD / Interdisciplinary - Talk to us about crediting |
| Interdisciplinary | CIE_STEP | A or B | CIE_STEP: Curriculum Innovation Prototype: Social Technology Enterprise with Purpose (STEP) | Ferzoco, Alessandra; Ruvolo, Paul | Lab A: MR 1:00pm-2:40pm Lab B: TF 2:50pm-4:30pm | 218 | NA | 9 | | Must be taken with CIE2223P | |
| Interdisciplinary | ENGR2340 | 01 | ENGR2340: Engineering Systems Analysis: Dynamics (2 cr) | Lee, Chris; Sommerville, Mark | MR 10:20am-12:00pm | 113 126 | 2 | 32 | 10 | Session II must be taken with ENGX2134 | Core ME |
| Interdisciplinary | ENGR2410 | 01 | ENGR2410: Engineering Systems Analysis: Signals (2 cr) | Goenka, Chhavi | TF 1:00pm-2:40pm | 304 | 2 | 30 | 5 | Session II must be taken with ENGX2134 | Core ECE |
| Interdisciplinary | ENGR3531_M TH2131 | 01 | ENGR3531_MTH2131: Data Science | del Rosario, Zachary | MR 3:40pm-5:20pm | 113 | 2+2 | 30 | 5 | | ProbStat Requirement_E:C elective |
| Interdisciplinary | ENGX2005 | 01 | ENGX2005: Quantitative Engineering Analysis 2 | Geddes, John; Malley, Melinda; Shuman, David | MR 1:00pm-2:40pm | 113 126 128 | 4 | 92 | N/A | | Required ENGR |
| Interdisciplinary | ENGX2134 | 01 | ENGX2134: Engineering Systems Analysis (2cr) | Goenka, Chhavi; Lee, Chris; Sommerville, Mark | MR 10:20am-12:00pm | 113 126 128 | 2 | 60 | 5 | Session I | Requirement - ME, ECE |
| ME | ENGR2320 | 01 | ENGR2320: Mechanics of Solids & Structures | Lee, Chris | MWR 8:30am-10:10am | 113 | 4 | 35 | 5 | | Core ME |
| ME | ENGR2330 | 01 | ENGR2330: Introduction to Mechanical Prototyping | Faas, Daniela | TF 2:50pm-4:30pm | 128 | 4 | 40 | 10 | | ELECTIVE |
| ME | ENGR3355 | 01 | ENGR3355: Intermediate Thermodynamics | Tow, Emily | TF 2:50pm-4:30pm | 328 | 2 | 75 | 10 | Session I | Core ME |
| ME | ENGR3365 | 01 | ENGR3365: Intermediate Transport Phenomena | Tow, Emily | TF 2:50pm-4:30pm | 328 | 2 | 75 | 10 | Session II | Core ME |
| ME | ENGR3370 | 01 - | ENGR3370: Controls | Barragan, Patrick | T 9:00am 12:00pm | 328 | 4 | 2 4 | 10 | CANCELLED | ME Elective/ECE Elective |
| МТН | MTH3120 | 01 | MTH3120: Partial Differential Equations | Geddes, John | MR 3:40pm-5:20pm | 126 | 4 | 30 | 5 | | ADV MATH |

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| | | | | | SP23 Course Offerings and Plan | IIIIIg.xisx | | | | | SP23 Offerings List Vol21N |
|-------|----------------------|-----------|--|-------------------------------|--------------------------------|---|---------|------------------|----------|---|--|
| Area | Course # | Sect # | Course Title | Instructor / Teaching Team | Time | Location: MAC (unless noted otherwise) | Credits | Enroll Limits | Waitlist | Notes | Curriculum Role |
| SCI | SCI1199 | 01 | SCI1199: Special Topics in Physics: Electricity and Magnetism | Neely, Andy | MR 1:00pm-2:40pm | 309 | 4 | 18 | NA | | SCI Elective |
| SCI | SCI1250_AHS E2150 | 01 | SCI1250_AHSE2150: Six Microbes that Changed the World with Laboratory | Huang, Jean; Martello, Rob | MR 9:20am-12:00pm | 417 406 | 8 | 24 | 6 | 8 credit course | SCI - Bio Foundation & AHS Elective |
| SCI | SCI1260_AHS E2160 | 01 | SCI1260_AHSE2160: The Intersection of Biology, Art and Technology | Donis-Keller, Helen | TF 9:20am-12:00pm | 313 406 | 8 | 20 | 5 | 8 credit course | SCI - Bio Foundation & AHS Elective |
| SCI | SCI1320 | 01 | SCI1320: Paper Panacea: Part I with Laboratory | Vanasupa, Linda | MR 9:20am-12:00pm | 409 413 | 4 | 16 | NA | | SCI - MatSci Chem Requirement |
| SCI | SCI1410 | 01 | SCI1410: Materials Science and Solid State Chemistry | Neal, Matt | TR 6:00pm-8:40pm | 413 | 4 | 21 | 10 | | SCI - MatSci Chem Requirement |
| SCI | SCI1440 | 01 | SCI1440 Materials Creation, Consumption, and Impact | Stolk, Jon | TF 9:20am-12:00pm | 413 | 4 | 21 | 10 | | SCI - MatSci Chem Requirement |
| ADMIN | AWAY1000 | 01 | AWAY1000: The Study Away Program | Administration | N/A | N/A | 4 | N/A | N/A | Enroll in this course if you will be studying away in the spring 2023 semester | |
| ADMIN | OIP1000 | 01 | The Olin Internship Practicuum I | Alcott, Suzanne | N/A | N/A | 1 | N/A | N/A | See Post Graduate Planning to Enroll | |
| ADMIN | OIP1001 | 01 | The Olin Internship Practicuum II | Alcott, Suzanne | N/A | N/A | 1 | N/A | N/A | See Post Graduate Planning to Enroll | |

1/12/2023

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| Color Key Offering Blocks | ECE | | | ME | | | | ENGR / DSI | N Courses | | EN | GR/Foundat | ion Requir | ement | | | | D OFFERING (co | | CIE | |
|---------------------------------|---|--|--|---|--|---|--|--|--|--|--|---|--|---------------------------------|--|---|--|---|---|----------------------------------|-----------------|
| | | | | Mond | ay | | | | | | | Tuesday | • | | | | | | Wednes | sday | |
| 8:30 AM | | N S | Mechanics of Solids & Structures | ENGR2420 Intro Microelectr onic | CIE2223M Math and Engineering For Everyor | ne e | | CIE2223P Social Tech Enterprise | ENGR 1125 sectio: 02 | | | | | | | | | | ENGR2320 : Mechanics of Solids & | | |
| 9:20AM 10:10 AM | AHSE1515 Products & Markets | 1 | 13 | Circuits w/ Lab 309 | 126 | Paper Panace I w/ Lab | d_AHSE215 0 a: Part | w/ Purpose (STEP) 9am-12pm | 428 | | | | | Materi Creatio Consul | als on, mption | SCI1260_and _AHSE2160 Intersection Biology, Art and | ENGR 1330 | | Structures 113 | | |
| 10:20 AM | 318/326/32 8 Ir | ntro to Power Electronics | Session I ENGX2134 Engr Systems Analysis (ESA) | Session II ENGR 2340 ESA: Dynamics | | 409 413 | Changed the World 417 406 | | ENGR1125 section: 03 ISIM | ENGR 2510 section 01 Software Design | AHSE 2199A Engineerin g in Context | AHSE 2515 Iterate | CIE2223E Environmenta Consulting at Olin 326 | al 413 | | Technology w/ Lab | Fundamentals of Machine Shop Operations 10-12pm Machine Shop | | | Meeting | ENGR 4190 |
| 12:00 PM | | | | LUNC | :H | | | | | 417 | | LUNCH | | | | | | 11 | am-12:3 | | SCOPE |
| | ENGR 2250 sections 01-03 Collaborative Design 1-3:30pm 204/206/209 | ENGR3240 Tell the Story of What You Make 1-3:30pm | ENGX2005 Quantitative Engineering Analysis 2 113/126/128 | SCI1199: SpecTop: Electricity and Magnetisn | CIE_STE Social Te | ech | ENGR3599: ST in Computing: Scientific Computing | ENGR 2510 section 02 Software Design 318 | ENGR 2 section (Software Design 326 | 03 2235 | Se EN ES | ssion II IGR 2410 A: Signals | ENGR 339 Fundament of Robotics 128 | tals AHS | | | ENGR 1330 Fundamentals of Machine Shop Operations 1-3:30pm Machine Shop | | ENGRA Entrepr al Caps Alterna (EEC) | 4 <u>599</u> reneuri stone | - 8:30am-5:30pm |
| 2:50 PM | MTH2131_EN GR3531: Data Science 3:40 - 5:20pm | 417 CIE_MEE Math and Engineering For Everyone Lab A | ISIM 428 | tions: 01 | AHSE4190 AHS Capstone Library | MTH 3120 Partial Differential Equations | ENGR2420 Intro Microelectronic Circuits w/ LAB 3:40pm-5:20pm | ENGR 1125 section 04 ISIM 428 | ENGR2330: Mechanical Prototyping 128 | ENGR 3392 Robotics Systems Integration 306 | | Session I ENGR3355 Inter Thermo 328 Session II ENGR 3365 Inter Transpo 328 | dynamics S | NGR 3525 Software Systems | CIE_STEP Social Tech Enterprise v Purpose (STEP) LAB B 218 | Affordable Design & Entrp Tues | | CIE_MEE Math and Engineering For Everyone Lab B | 1-5pm 126 | | |
| 5:30 PM | 113 | 3:31-5:30pm | | | | 3:40-5:20pm | 309 | | | | | | | | | 3:30-6:30p Thurs 3:30- 5:30p | | | | | |
| 6:00 PM | | | Foundati of Comp Science | ions uter | ENGR3 Advanc Algorith 326 | ed | | | SCI1410 Materials Science and Solid State Chemistry | | | ENGR3499A Satellite Systems | | | | Weissman Foundry | | | | | |
| 8:40 PM | | | 126 | | | | | | 413 | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |

SP23 Offerings_Grid Vol21No3

| AHSE | AHSE SCI | | | | | | | | | | | | | | | | | | | Color Key- Offering Blocks |
|--|---|---|--|---|--|--|---------------------------------------|---------------------------------|---|--------------------------------|---|---|---|---|--|---|--------------------|---|--|----------------------------------|
| | | | | Thui | sday | | | | | | | | | Fı | riday | , | | | | |
| AHSE1515 Products & Markets | Intro Microelect c Circuits Lab | troni w/ | ENGR2320: Mechanics of Solids & Structures 113 | | Math and Engineering For Everyone | | SCI 1320 Paper Panacea: Part I w/ Lab | Six Microbes | | ENGR section ISIM 428 | | | ENGR 4190 SCOPE | | | | | SCI1440 Materials Creation, Consumption and Impact | SCI1260_an d_AHSE216 0 Intersection Biology, Art | 9:20 AM 10:10 AM |
| MH120 318/326/328 | ENGR349 Intro to Power Electronic 309 | | Session I ENGX213 Engr Syst Analysis (| ems ESA) | Session II ENGR 2340: ESA: Dynamics 113/126 | | 409 413 | that Changed the World 417 406 | CIE2223P Social Tech Enterprise w/ Purpose (STEP) 218 | section ISIM | ons: 03 | ENGI 2510 section Softw Design 417 | on 01 Engine in Con | eering itext It | HSE 515 erate 26 | CIE2223E Environmental Consulting at Olin 326 | | 413 | and Technology w/ Lab | 10:20 AM |
| | LUNCH | | | | | | | | | | | | | LU | INCH | 1 | | | | |
| ENGR 2250 sections 01-03 Collaborative Design 1-3:30pm 204/206/209 | Quanti Engine Analys | Cuantitative Engineering Analysis 2 113/126/128 SCI1199: SpecTop: Electricity and Mag netism 309 SCI1199: ST in Computing: Scientific Computing: 318 1-3:30pm 417 | | Il the Story What You ake (3:30pm | CIE_STEP Social Tech Enterprise w/ Purpose STEP) -AB A 218 | section 02 section 03 or SCI 2235 Software Design Design Biomimicry | | | | | 224 ESA | 10 \: | ENGR 3390 Fundamentals of Robotics 128 | АН | ession I ISE2199: riting Gets Real | | 1:00 PM 2:40 PM | | | |
| ENGR 3290 & 4290 ADE Tues 3:30-6:30p Thurs 3:30-5:30p | MTH 31 Partial Different | ıtial | ENGR 112 sections: 0 ISIM 428 | | MTH2131_EN GR3531: Data Science | | | | ENGR 1125 sections: 04 ISIM 428 | Ei Pi (S | IE_STEP Social Tech nterprise w urpose STEP) AB B 18 | ר v/ : | ENGR 3525 Software Systems 326 | ENGR2 : Mechan Prototyp 128 | ical R Soing Ir | nGR 3392 cobotics ystems ntegration | | Session ENGR338 Inter Ther 328 Session ENGR 3 Inter Tran 328 | 55 modynamics <u>II</u> 365 | 2:50 PM 4:30 PM |
| Weissman Foundry | 3:40-5:2 126 | | | · · · · · · · | 3:40 - 5:20pm 113 | | | | | | | | | | | | | | | 5:30 PM |
| AHSE 0112 Olin Conducto Orchestra MAC 318 / 32 | AHSE 0112 Olin Conductorless Orchestra ENGR3599A-SL Advanced Algorithms Science and Solid State Chemistry SCI1410 AHSE2199B ST in AHS: Real World Lessons in Creating Impact | | | | | | | | | | | | C(| ommı | unity | Time | | | | 6:00 PM |
| MAC 318 / 328 6pm-8:00pm 126 | | | | | | | | | | | | | | | | | | | | 8:40 PM |
| | | | | | | | | | page | 1 of 1 | | | | | | | | | | |