Fall 2022 Supplement and Course Offerings List

(vol21, no1.2, 20April2022)

Information Contained In this Document:

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

| Session | Add | Drop and Pass/No Credit | Withdraw |
|------------------------------------|--------------------|-------------------------|-------------------|
| Full Semester (Aug 31 – Dec 12) | September 14, 2022 | November 4, 2022 | December 12, 2022 |
| Session I (Aug 31 – Oct 18) | September 8, 2022 | October 3, 2022 | October 18, 2022 |
| Session II (Oct 20 – Dec 12) | October 26, 2022 | December 5, 2022 | December 12, 2022 |

2) Cross-Registration Deadlines and Instructions

Click <u>HERE</u> for Cross-Registration FAQ

| | Babson | Brandeis | Wellesley |
|-----------------------------------|-----------------------|----------|------------------------------|
| Cross-registration open period | 4/22/22 – 9/2/22 @4pm | TBD | 4/22/2022 – 9/16/22 @11:59pm |
| First day of classes | 8/29/22 | 8/25/22 | 9/6/22 |
| Drop deadline | 9/2/22 @4pm | 11/14/22 | 9/30/22 @11:59pm |
| Withdrawal Deadline | 11/1/22 | TBD | 12/14/22 @4:30pm |
| Last day of Classes | 12/5/22 | TBD | 12/14/22 |
| Finals Period | 12/8/22 - 12/15/22 | TBD | 12/19/22-12/22/22 |

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

3) Registration Special Notes

Course Schedule Blocks:

We are returning to 100-minute blocks, 10 minutes between blocks and the 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):

Based on positive feedback, we are continuing to use the *curriculum category* in our Course Offerings List. 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 either in degree requirements or via the course description.

Class of 2023 CAPSTONE Registrations:

Based on the results of the Capstone survey, you will be notified by the capstone team if you have been assigned to ADE, SCOPE or EEC. The Registrar's Office will then register you for your assignment. If you have questions about your assignment, please connect with Scott Harris (EEC), Scott Hersey (SCOPE), and/or Ben Linder (ADE). Or, if you have other questions, please contact <u>registrar@olin.edu</u>.

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 two 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. See <u>Olin College of Engineering - Curricular and Experiential Learning Prototypes (smartcatalogiq.com)</u> for details.

Rising Sophomores (Class of 2025): Some Details:

- The Quantitative Engineering Analysis (QEA) sequence continues into your 2nd year at Olin. All currently enrolled students in QEA2 have been preregistered into QEA3.
- Your time to take Principles of Integrated Engineering (PIE) is Fall 2022. There are 4 sections being offered for all rising sophomores.

Information about Discrete Math:

The demand for Discrete Math next fall (2022) significantly exceeds the number of seats we can offer in two sections without compromising the student experience. To help with the high demand, we are considering two ideas. One idea is to offer a "taste of Discrete" next spring (2023) in a new class that covers the main ideas of discrete math with a focus on developing curriculum to bring discrete topics to middle and high school classrooms. This might be a good option for students who want exposure to discrete math but who do not need the full rigor of the regular course that is required for ECE and E:C majors. The second idea we are considering is to again delay the move of regular Discrete to the spring, keeping a fall Discrete in 2023. Although the planned change to the spring will better align Discrete with the QEA sequence, we understand that it is causing scheduling difficulties for current students. We share the above context with you for your planning. If you do not require Discrete for your major, we strongly recommend delaying your enrollment and perhaps express interest in 'taste of Discrete'. You may express interest by emailing Linda Canavan.

If you are an E:Robo major please read this updated guidance:

The "taste of discrete" class for spring 2023 will be appropriate for E:Robo students as long as their projects focus on robotics-related discrete topics such as algorithms on graphs. ECE and E:C students should take the regular Discrete course in Fall 2022. "

ME Core update

- No core Mechanical Engineering requirements are changing next year, and no courses are going away yet
- Some courses (like Thermo and Transport) are being delivered differently
 - Each topic will be taught in 2-credit segments, with the intro versions in the fall and the intermediate versions in the spring
 - Introduction to Thermodynamics + Intermediate Thermodynamics, in combination, are a designated alternative for ENGR2350 Thermodynamics
 - Introduction to Transport Phenomena + Intermediate Transport Phenomena, in combination, are a designated alternative for ENGR3310 Transport Phenomena
- We are offering ENGR2320, Mechanics of Solids and Structures in both the fall and the spring semesters next year to spread out the demand. For rising juniors needed Mech Solids that are considering studying away in the spring, the fall offering is desirable. For rising sophomores planning on the 2 credit Intro Thermo/2 credit Intro Transport sequence in fall 2022, MechSolids may be best placed in your spring semester (SP23) as you will also have QEA3 and PIE in the fall.

Waitlists for Courses with Two Numbers:

If you want to join a waitlist for AstroStats (MTH2136 and SCI2136) please email <u>registrar@olin.edu</u> after you register. We will maintain a waitlist as the system does not allow waitlists for connected courses.

What is a cross-listed course?:

There is one cross-listed course in Fall 2022: Failure Prevention and Analysis (ENGR3820 or SCI3420):

- > Choose ENGR3820 for ELECTIVE credit, or
- > Choose SCI3420 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

ENGR2399: Special Topics in Mechanical Engineering: Applied transport: measurement of flow and sedimentation Instructor: Ferzoco Credits: 2 ENGR Hours: 4-0-8

Pre-requisites: ENGR1125 and ENGR2350

Registration Note: Session I course; students must also register for session II, Intro Transport

This course will focus on observations and measurements of fluid flow and sedimentation. Fluid flow and particulate transport determine a range of observable phenomena that impact human health and the planet. We can study the phenomena that occur at laboratory scales, for example particulate monitoring and mitigation in municipal water supplies, using measurements on model systems. Phenomena that occur on inaccessible time and spatial scales, for example the human impact on sedimentary basins, will be studied through the scientific literature.

AHSE1160-01: Democracy and Media

Instructors: Graeff Credits: 4 AHS Hours: 4-0-8

Registration note: AHS FOUNDATION; restricted to first year students

Every day, you have the opportunity to choose democracy. When we think of democracy, we usually think of a form of government: a representational democracy like the United States. But, the experience of participating in a representational democracy is not always democratic. Conversely, companies and colleges like Olin are not organized as democracies, and yet the people that work and study there have many opportunities to practice democracy. Democracy is something you, and those around you, can choose to create and practice. To achieve this, we must acknowledge that democracy is contextual and mediated. Dimensions such as gender, race, class, ideology, norms, economics, and institutional power all affect the political standing of citizens and issues. Media, too, has long shaped the experience of democracy: debate, writing, voting, and petitioning are ancient technologies. The design and use of contemporary information and communication technology dramatically shape how democracy plays out. This course will ask you to confront this tangle of interests, identity, technology, and power. We will ask ourselves the quintessential civic question: "What should we do?" and consider "What is my role and responsibility as a citizen? as an engineer? as a member of the Olin community?" You will explore ways to make the spaces you live and work in more democratic. You will practice using your voice and influence to make change through public narrative, collective action, and media.

AHSE1170: Infrastructure Studies

Instructor: Chachra Credits: 4 AHS *Registration note: AHS FOUNDATION; restricted to first year students*

We live our lives embedded in systems that help take care of many of our basic needs, as well as some that are not so basic: warmth (or cooling), clean water, hygiene, and communications. At the same time, these systems provide the technological context for our engineering work. But we rarely notice infrastructure until something goes wrong. In this course, we'll investigate the systems that surround us, including water, sewage, electricity, telecommunications, transport, and more. We'll start thinking more broadly about infrastructure, asking questions like "what makes a system 'infrastructure', and why?". To do this, we'll draw from a wide range of fields and materials, from scholarly essays to videogames. And we'll consider our collective future: how might we make infrastructural systems more sustainable, resilient, and equitable? By the end of the semester, you will have a new awareness and understanding of these systems that underpin our lives and engineering work, and you will have the opportunity to document and share your own exploration of these systems.

AHSE2135: Digital Photography: Seeing is Believing

Instructor: Donis-Keller Credits: 4 AHS Hours: 4-0-8 Recommended Requisites: no prior courses or experience is required or expected This course is all about the communication of ideas and developing an independent creative voice in the visual arts using digital photography as the medium of choice. Fine art photography and documentary photography are the twin focus areas with individual expression fostered and doing good in the world using photography will be prioritized. Digital Photography: Seeing is Believing, will be a hands-on course taught in studio mode and will be project-based with weekly homework assignments that also includes several major projects allowing longer-term project engagement. Digital single-lens reflex (DSLR) cameras, digital editing tools and printing capabilities are provided and gaining technical facility with these tools is an important goal. We will consider the many interpretations of fine art photography from traditional landscape work to conceptual art. A second equally important focus is how photography can be used to do good in the world, in particular, to call attention to climate change and what to do about it. The work of contemporary fine art photographers and documentary photographers will be studied in depth and trips to museum and gallery exhibits will be scheduled as appropriate as will field trips with the class to capture images in interesting locations. Students with no prior experience with photography are strongly encouraged to enroll in this course and are as welcome as those who have already discovered a passion for creative expression using photography.

AHSE2116: Framing History through Comics: Icons, Identities, and Impacts

Instructor: Martello Credits: 2 AHS Elective Hours: 4-0-8 Registration notes: Session II course

Comic books and graphic novels unlock the epic potential of narrative storytelling. In Framing History we will explore how comics make history (what would you choose as the most impactful comics and graphic novels of all time?) as well as how they portray history. We will study a selection of classic graphic novels in different genres such as biography, autobiography, history, superhero, activism, children's fiction, and others. As we analyze the dynamic space where prose meets art, we will also learn how comics reflect their historical context while impacting so many aspects of our society in return. This course will rely heavily upon student input and feedback, and will use the co-design model to invite students to help test new assignments and design important elements of the class. Our journey will feature plot twists and cliffhangers and promises to be a true page-turner!

ENGR3820 or SCI3420: Failure Analysis and Prevention

Instructor: Stolk Credits: 4 ENGR or 4 SCI (cross-listed) Hours: 4-0-8 Pre-requisites: SCI1410, SCI1420, SCI1440, or CIE2122 Recommended Requisites: Materials lab experimentation skills (hands-on testing and analysis, experimental design), Self-regulated learning skills, and Primary literature reading skills

In this class, we learn failure analysis by doing failure analysis. By planning and implementing hands-on investigations in a laboratory setting, we will gain practical experience in the analysis of engineered components and systems that fail in expected or unexpected ways. Case study readings and class discussions will help us develop an understanding of technical topics such as failure analysis methodology, fracture classifications and micromechanisms, corrosion and degradation, and materials selection and design decision-making. Self-directed projects will enable skill building in laboratory methods and advanced materials characterization techniques, such as scanning electron microscopy (SEM), energy dispersive spectroscopy (EDS), x-ray diffraction (XRD), Fourier transform infrared spectroscopy (FTIR), optical microscopy, and fracture surface sample preparation.

We won't stop there. We will broaden our learning by critically analyzing how "engineering" failures intersect issues of economics, policy, regulation, justice, and ethical decision-making in complex systems. We will pay particular attention to the social and environmental consequences of larger systemic failures by examining concrete case studies (e.g., the Flint water crisis, Love Canal, e-waste in Guiyu) as well as more abstract and aspirational models for the future (e.g., material circularity, extended producer responsibility).

Written and oral communication assignments will support development of professional skills in synthesizing laboratory and research data, developing and supporting technical arguments, and contextualizing our findings.

SCI2299: Special Topics in Biological Sciences:

How your immune system keeps you alive Instructor: Pratt Credits: 2 SCI Hours: 3-3 (first 3 may be either class or lab) Registration Note: This course is being offered using Experimental Grading (EG)

When the immune system functions properly, infectious pathogens (bacteria, viruses) and potential cancer cells are destroyed. When our immune system malfunctions, normally harmless microorganisms can cause serious infections, autoimmune diseases or allergies can develop, and cancer cells can grow unchecked. In this class, we will learn how the components of the immune system work together to protect us and investigate cutting edge technologies that leverage our understanding of how the immune system works. This course does not satisfy the biology foundation requirement. This course will be graded using **experimental grading**.

ENGR3499: Special Topics in Electrical and Computer Engineering:

Power Electronics Instructor: Arnet Hours: 4-4-4 Registration notes: ECE elective Prerequisites: ISIM and Circuits

In this course, the student will learn the fundamentals of power electronics in the context of DC-DC switched-mode power supplies. The material studied is multidisciplinary, covering the analysis and control of power-converter topologies, design and fabrication of magnetic components and realization of MOSFET powerstages. The theory is taught in an applied and design-oriented fashion through simulation-based analysis and hands-on and collaborative experimentation. It is a primary objective of this course to apply fundamental concepts with the aim of developing an intuitive big picture understanding and to encourage independent exploration.

The applied component of the class is centered around a low-voltage flyback converter. The lesson modules will gradually build up the necessary knowledge to design and build a custom flyback transformer, specify key powerstage components including snubber and clamping circuits and realize an analog closed-loop voltage controller.

Topics that will be introduced/revisited include:

- Modeling and simulation of switched-mode topologies
- Reading datasheets and extracting key information for modeling and design purposes
- Electromagnetic principles for the design of inductors and transformers
- Semiconductor operation and loss calculations
- Selection of powerstage components (MOSFET, filter capacitors, gate-drivers)
- Protection circuits and snubber design
- Calculating and measuring transfer functions
- Tuning and implementing analog control loops (loop shaping method)

Students will be asked to complete pre- and post-class assignments, and to provide weekly evidence of their explorative work by submitting engineering notes with original contents. Additionally, students will be teamed-up into groups to further investigate specific topics and present their findings to the rest of the class.

ENGR2355: Introduction to Thermodynamics

Instructor: Tow Credits: 2 Hours: 3-0-9 Note: This course in combination with Intermediate Thermodynamics (to be offered Spring 2023) are a designated alternative for ENGR2350 Thermodynamics. Students cannot also receive credit for ENGR2350 Thermodynamics. Registration notes: Session I course

This course covers the fundamental principles of thermodynamics as applied to engineering systems. It provides a foundation in fundamental thermodynamic phenomena, including the first and second laws of thermodynamics, thermodynamic properties, and equations of state in ideal gases and incompressible fluids. The basic laws are used to understand and analyze the performance and efficiency of engineered systems and the behavior of the natural world.

ENGR2365: Introduction to Transport Phenomena

Instructor: Tow Credits: 2 ENGR Hours: 3-0-9 Note: This course in combination with Intermediate Transport Phenomena (to be offered Spring 2023) are a designated alternative for ENGR3310 Transport Phenomena. Students cannot also receive credit for ENGR3310 Transport Phenomena. Registration notes: Session II course

This course introduces the basic physics and applications of heat transfer and fluid flow. Topics in heat transfer include conduction, convection, and resistance networks, with an emphasis on thermal modeling. Topics in fluid flow include dimensional analysis, pipe flow networks, inviscid flows, and basic aerodynamics. We will model sustainable technologies, create and fly kites, and consider thermal-fluid phenomena in everyday life.

AHSE2199: Special Topics in Arts, Humanities, Social Sciences:

Contemplating Education Instructor: Zastavker Credits: 4 AHS

This course is an invitation for all of us – students, course assistants, and instructors – to contemplate together (engineering) education. Contemplation refers to thoughtful observation, reflection, consideration, or intention, sometimes associated with deeper awareness and sense of presence. When leveraged in learning environments, contemplation - holistically defined - offers opportunities to "become more aware of [ourselves], become more conscious of the impact [we] have on the world ... and connect [our] learning to [our] values and sense of meaning" (Contemplative Pedagogy Network). By leveraging contemplation and associated contemplative practices, we will together move beyond 'third person' didactic approaches dominant in engineering and scientific discourses to 'first person' perspectives that incorporate mind, body, and heart. Specifically, together we will use contemplative practices – both individual and communal, internal, and external – to allow for an emergence of deeper meaning of self as a learner and the (engineering) education paradigm through the development of compassion, empathy, connectedness, and creativity. To this end, we will begin by theorizing Olin education within the larger context of the (engineering) education paradigm followed by holistic and embodied contemplation about our collective and individual experiences of and with the Olin educational milieu. In doing so, we invite and actively engage all our diverse ways of being and knowing to experientially understand and reflect on the ways in which holistic and embodied pedagogical practices impact teaching and learning. This is particularly important in today's (engineering) education where consequences of our potential disinclination to include our whole and diverse senses of self is critically harmful for our individual and collective future. In this way, this course is an invitation to engage in a conversation about revolution, or possibly evolution, of (engineering) education – the invitation that is also potently described in A Whole New Engineer: The Coming Revolution in Engineering Education by David E. Goldberg and Mark Somerville.

AHSE2199B: Special Topics in Arts, Humanities and Social Science: Understanding Institutions: Creating Change at Olin and in the World Instructors: Lynch, Somerville Credits: 2

Hours: 3-0-3

In this 2-credit course, students will learn about methods and strategies to create positive change in their immediate lives. The course will focus on understanding institutions, systems, people, power, decision-making, and collaboration. Students will bring their perspectives and ideas about change, and Olin will serve as a case study for learning and action. In this action-oriented workshop class, students will both execute projects and draw larger lessons to take with them to communities and institutions after graduation. Course activities will include reading, consuming media, writing, discussion, and conducting real-world projects. Seats in the class will be reserved for 6 sophomores, 6 juniors, and 6 seniors. The instructors are Mark Somerville (Provost) and Caitrin Lynch (Dean of Faculty). This is a chance for students and instructors to bring their perspectives and observations to create positive change together.

AHSE2515: Iterate

Instructor: Ger

Credits: 4 (NOTE – this is a full semester 4 credit course; there will not be ½ session 2 credit courses)

The fall 2022 version of Iterate will focus on Social Entrepreneurship. As a result of taking this course, students will be able to better understand issues both big and small that face our world, country, and communities. Students will choose an area of focus, develop an idea and test its viability, feasibility, and desirability. The class offers a structure for students to test and validate ideas; research and understand a topic; formulate ideas and solutions; and complete experimental sprints. After each sprint, students will further refine ideas with the goal of creating a meaningful product or service. Each experiment cycle will include testing a different question, hypothesis, or assumption about an entrepreneurial idea by getting in front of real people. Outside resources, mentors, and advisors will be engaged based upon the specific needs of each project. Students may participate in the course as individuals or in teams, and it is a requirement to pursue a new idea (not something already being pursued prior to the start of the class, nor something that will be pursued in another course at the same time). Iterate is now a 4-credit course, and it may be taken multiple times for full credit. Four credits of this course may also be used to satisfy the project requirement as part of an entrepreneurship concentration.

AHSE2199A: Special Topics in Arts, Humanities, Social Sciences:

The Craft of Nonfiction: Understanding How Writing Works Instructor: Hendren Credits: 4 AHS Hours: 3-0-9

This AHS elective is focused on reading and writing in response to many genres of creative nonfiction: books, essays, films, podcasts, and more. We'll read widely from a huge range of writers in these genres, and we'll discuss the big and small elements of craft that we identify in the best nonfiction communications: How is the work structured, with character, reportage, and/or analysis? How would we characterize "voice" in nonfiction? What are the best forms of rhythm, pacing, musicality, and surprise we can identify? Your weeks will be filled with other people's words, and you'll write detailed responses to those words and discuss them in class. You'll discover modes of craft and technique in writing, helping you to distinguish among the many forms of writing that convey true stories in our everyday lives. (Note that your own nonfiction writing will be short and modest in this class. We're mostly focused on discussing how the professionals do their thing!)

ENGR2299: Specials Topics in Design:

Introduction to Architecture and Urbanism: Public Space as Public Sphere Instructor: Hendren Credits: 4 ENGR Hours: 3-0-9

This intermediate design course is a project-augmented seminar—heavy on reading in history and criticism about the work of buildings and city streets in shaping public life, with modest design proposals as experiments in practice. Perfect for folks thinking about the intersection of design and engineering, as well as students interested in architecture, urban

planning, and public space. How do buildings reflect the inherited values of a culture, and how might they shape and reshape human behavior in the future? How does the city become a civic theater for shared life? There will be substantial written analysis required each week as we read deeply in urbanism and design criticism, so come if you're interested in words. You'll leave class with some strong literacy in understanding the operations of the built world at architectural scale, and with a design depth credit suitable for several design concentrations.

ENGR3399: Special Topics in Engineering:

Mechanical Analysis Instructors: Student Led Course with Advisor Daniela Faas Credits: 2ENGR Recommended Reguisites: ENGR2320, Mechanics of Solids and Structures

Mechanical Analysis (MechAnalysis) is a 2 ENGR Credit opportunity that expands upon existing mechanical engineering concepts in the curriculum, introduces practical analysis methods not currently covered, and will provide a more concrete toolkit for analyzing engineering problems encountered throughout a student's Olin education and early career.

This course will be taught by MechE super seniors: Carlos G., Katie G., Colin T., and Nathan W. After almost four years at Olin we've accumulated this knowledge via 3 different project teams, 10 technical internships, and 3 separate SCOPE projects. These experiences have illustrated the value of the material covered in this course and formalizes learning we had acquired from peers, personal research, and external courses.

MechAnalysis bridges the gap between where students are after MechSolids and where they are expected to be for technical internships or advanced ME courses. We will revisit and expand upon concepts taught in MechSolids (ENGR2320), and will give you tools to confidently and thoroughly design and analyze the projects you will create in MechDes (ENGR3330). **MechSolids is a recommended, but not required prerequisite for MechAnalysis. If you are unsure if this course will be a good fit for you, feel free to reach out to any of the teaching team to discuss.** Material will be taught primarily through in-person lectures and bolstered by brief problem sets due every other week.

MTH2130: Probability and Statistics Topic:

Probabilistic Modeling (ProbMod) Instructor: Staff Credits: 4

As we strive to better understand the world around us, interact with it, and make informed decisions, it is important to be able to model uncertainty. Moreover, our natural intuitions about uncertain events are often incorrect. Probability provides the language and formalisms to help us model and analyze uncertain situations. Through a series of applied modeling projects, we will learn the foundations of probability theory and practice the art of choosing appropriate probabilistic models. Probability concepts covered will include counting; conditional probability and Bayesian inference; independence; random variables and their properties such as expectation, variance, and covariance; and limit theorems. Discrete and continuous random processes covered will include Bernoulli processes, Poisson processes, Markov processes (including their use in Markov chain Monte Carlo simulation), and Brownian motion. Students will select their own projects from a wide range of fields, such as network science, robotics, genetics, climate modeling, signal processing, machine learning, simulation, epidemiology, finance, queuing theory, communications and information theory, and neuroscience.

ENGR3599: Special Topics in Computing:

Larger-scale Software Development

Instructor: Matsumoto Credits: 4 ENGR Hours: 4-0-8 Pre-requisites: ENGR 2510: Software Design Recommended Requisites: ENGR 3515: Data Structures and Algorithms

In this course, students will learn about developing, deploying, and maintaining larger software through the lens of building useful software or services for the Olin community. In doing this, the course will look at topics including more advanced workflows in version control, how to set up and configure virtual machines both locally and in the cloud, how to monitor services, and how to work on teams to do things like code reviews and postmortem analysis. Students will practice these skills through both smaller exercises and by contributing to larger projects over the semester.

CIE2223: Curricular Innovation Experiment:

To Cradle2Cradle or not? Instructor: Vanasupa Credits: 4 Intro Sust; ENGR, SCI or MatSci

Project-based course focused on designing a decision protocol for engaging Cradle2Cradle certification through building essential embodied leadership capacities.

This project-based offering builds transdisciplinary practices required for sustainable co-design. The Cradle2Cradle (C2C) certification is product certification process that involves holistic criteria: Social Fairness; Water & Soil Stewardship; Clean Air & Climate Protection; Product Circularity; and Material Health. As a class, we will learn the C2C methodology and design a decision protocol for companies to assess the potential value of using C2C for a particular product. As a foundation, we will also be practicing embodied methods for consciousness-based systems change.

Help Shape a Project on the Inequities of Higher Ed Indico XLP "Experiential Learning Project" Fall 2022

Work with Prof. Lynn Stein, Slater Victoroff, Phil Long, and Callan Bignoli to build AI tools that will structurally change higher education and industry, supporting Lifelong Learning for Everyone.

*This project will be worth either 8 or 12 academic credits, there is flexibility here. Contact Sally or Lynn asap if you're interested. *

About the Project:

At Olin, it's easy to forget that higher ed is broken. What was intended to be a gateway to a better life has instead become a gatekeeping nightmare of debt. As always - the problem is even worse for people without the means to graduate. Degrees are required for even entry level jobs, and despite the rare success of the college dropout, employers are often unwilling or unable to consider other forms of education. This is the problem we want to solve.

Bleeding edge AI techniques (from **Indico** so we *actually* mean that) developed in the past several years have fundamentally changed the way we can look at the world around us. The hope is to combine these techniques with an overlay of the w3c's verifiable credential standard to create a radically accessible new way for individuals to represent their competencies and expertise. The verifiable credential standard is a new way represent achievements, skills and competencies as structured data. But there are tens of millions of people who have achievements and credentials in unstructured form like transcripts and certificates. Still others have learned valuable skills on the job but have no structured way to self-assert them. These workers must not be left behind. The application of current AI techniques can bridge the chasm between the credentials of the past and those emerging today. Help build the digital on-ramp to future work.

Indico is a local venture-backed startup founded by our own Slater Victoroff, that makes the application of deep learning practical in the enterprise. Their focus is on helping automate tedious back-office tasks, and improve the efficiency of labor-intensive document-based workflows. The fundamental branch of technology used is known as transfer learning,

which allows us to train machine learning models with orders of magnitude less data than is required by traditional techniques, with a strong emphasis on NLP and text processing.

Didn't find the course you're looking for? Check the course browser at <u>https://my.olin.edu/ICS/Course_Schedules.jnz</u>

| Course # | Sect # | Course Title | Instructor / Teaching Team | Time | Location: MAC (unless noted otherwise) | Credits | Enroll Limits | Waitlist | Notes | Curriculum Category |
|-----------|-----------|--|-------------------------------------|--------------------|---|---------|------------------|----------|--|---------------------|
| AHSE0112 | 01 | AHSE0112: The Olin Conductorless Orchestra | Dabby, Diana | R 6:00pm-8:40pm | 318 326 | 1 | 20 | na | | AHS Elective |
| AHSE1100 | 01 | AHSE1100: History of Technology: A Cultural & Contextual Approach | Martello, Robert | TF 10:20am-12:00pm | 326 | 4 | 18 | na | open to class of 2026 | AHS Foundation |
| AHSE1122 | 01 | AHSE1122: The Wired Ensemble -Instruments, Voices, Players | Dabby, Diana | TF 1:00-2:40pm | 304 | 4 | 14 | na | open to class of 2026 | AHS Foundation |
| AHSE1155 | 01 | AHSE1155: Identity from the Mind & the Brain: Who Am I and How Do I Know | Adler, Jonathan | TF 10:20am-12:00pm | 318 | 4 | 18 | na | open to class of 2026 | AHS Foundation |
| AHSE1155 | 02 | AHSE1155: Identity from the Mind & the Brain: Who Am I and How Do I Know | Adler, Jonathan | TF 1:00-2:40pm | 318 | 4 | 18 | na | open to class of 2026 | AHS Foundation |
| AHSE1160 | 01 | AHSE1160: Democracy and Media | Graeff, Erhardt | TF 10:20am-12:00pm | 328 | 4 | 20 | 5 | open to class of 2026 | AHS Foundation |
| AHSE1170 | 01 | AHSE1170: Infrastructure Studies | Chachra, Debbie | MR 1:00-2:40pm | 318 | 4 | 24 | na | open to class of 2026 | AHS Foundation |
| AHSE2114 | 01 | AHSE2114: Science Fiction and Historical Context | Martello, Robert | MR 1:00-2:40pm | 326 | 2 | 30 | 10 | Session I | AHS Elective |
| AHSE2116 | 01 | AHSE2116: Framing History through Comics | Martello, Robert | MR 1:00-2:40pm | 326 | 2 | 30 | 10 | Session II | AHS Elective |
| AHSE2135 | 01 | AHSE2135: Digital Photography: Seeing is Believing | Donis-Keller, Helen | TF 1:00-2:40pm | 313 | 4 | 16 | 3 | | AHS Elective |
| AHSE2199 | 01 | AHSE2199: Special Topics in Arts, Humanities, Social Sciences: <i>Contemplating Education</i> | Zastavker, Yevgeniya | MR 1:00-2:40pm | 304 | 4 | 18 | 5 | | AHE Elective |
| AHSE2199A | 01 | AHSE2199A: Special Topics in Arts, Humanities, Social Sciences: <i>The Craft of Nonfiction</i> | Hendren, Sara | T 6:00-8:40pm | 326 | 4 | 20 | 5 | Tentative based on Enrollment | AHS Elective |
| AHSE2199B | 01 | AHSE2199B: Special Topics in Arts, Humanities, Social Sciences: Understanding Institutions: Creating Change at Olin and in the World | Lynch, Caitrin; Somerville, Mark | T 2:50-5:30pm | 126 | 2 | 18 | na | Seats in the class will be reserved for 6 sophomores, 6 juniors, and 6 seniors. | AHSE Elective |

| Course # | Sect # | Course Title | Instructor / Teaching Team | Time | Location: MAC (unless noted otherwise) | Credits | Enroll Limits | Waitlist | Notes | Curriculum Category |
|----------|-----------|--|---|--------------------|---|---------|-------------------|----------|---|------------------------------------|
| AHSE2515 | 01 | AHSE2515: Iterate | Ger, Donald | M 2:50-5:30pm | 328 | 4 | 16 | 10 | Full Semester | ENTRP Concentration |
| AHSE3190 | 01 | AHSE3190: AHS Prepstone | Epstein, Gillian | na | na | 1 | 10 | 5 | | AHS Prereq Cap |
| CIE2223 | 01 | CIE2223: Curricular Innovation Experiment: <i>To</i> Cradle2cradle or not? | Vanasupa, Linda | TR 6:00-8:40pm | 409 | 4 | 10 | 5 | | Intro Sust; ENGR, SCI or MatSci |
| ENGR1200 | 01 | ENGR1200: Design Nature | Chachra, Debbie; Sauder, Tim; Zastavker, Yevgeniya | MR 9:20am-12:00pm | 204 206 209 213 | 4 | 90 | na | | Requirement - DesNat |
| ENGR1330 | 01 | ENGR1330: Fundamentals of Machine Shop Operations | Staff | W 1:00-5:00pm | MACHINE SHOP | 4 | 6 | 20 | | Elective |
| ENGR2110 | 01-02 | ENGR2110: Principles Integrated Engineering | Malley, Melinda; Millner, Amon; Minch, Brad | MR 2:50-4:30pm | 306 309 | 4 | 28 per section | 12 | | Requirement - PIE |
| ENGR2110 | 03-04 | ENGR2110: Principles Integrated Engineering | Malley, Melinda; Millner, Amon; Minch, Brad | TF 10:20am-12:00pm | 306 309 | 4 | 28 per section | 12 | 、 | Requirement - PIE |
| ENGR2299 | 01 | ENGR2299: Specials Topics in Design: Introduction to Architecture and Urbanism: Public Space as Public Sphere | Hendren, Sara | T 9:20am-12:00pm | 417 | 4 | 20 | 5 | | Design (not design depth) |
| ENGR2320 | 01 | ENGR2320: Mechanics of Solids and Structures | Lee, Chris | TWF 8:30-10:10am | 328 | 4 | 48 | na | Will also be offered in spring 2023 | Core ME |
| ENGR2355 | 01 | ENGR2355: Introduction to Thermodynamics | Tow, Emily | TF 1:00-2:40pm | 328 | 2 | 38 | na | See note in supplement re: ME curriculum; Session I | ME Core Revision |
| ENGR2355 | 02 | ENGR2355: Introduction to Thermodynamics | Tow, Emily | TF 2:50-4:30pm | 328 | 2 | 38 | na | See note in supplement re: ME curriculum; Session I | ME Core Revision |
| ENGR2365 | 01 | ENGR2365: Introduction to Transport Phenomena | Tow, Emily | TF 1:00-2:40pm | 328 | 2 | 38 | na | See note in supplement re: ME curriculum; Session II | ME Core Revision |
| ENGR2365 | 02 | ENGR2365: Introduction to Transport Phenomena | Tow, Emily | TF 2:50-4:30pm | 328 | 2 | 38 | na | See note in supplement re: ME curriculum; Session II | ME Core Revision |

| Course # | Sect # | Course Title | Instructor / Teaching Team | Time | Location: MAC (unless noted otherwise) | Credits | Enroll Limits | Waitlist | Notes | Curriculum Category |
|------------|-----------|---|--|---|---|---------|------------------|----------|--|--------------------------|
| ENGR2399 | 01 | ENGR2399: Special Topics in Mechanical Engineering: Applied transport: measurement of flow and sedimentation | Ferzoco, Alessandra | TF 1:00-2:40pm | 326 | 2 | 10 | na | Session I | ME Core Requirement |
| ENGR3220 | 01 | ENGR3220: User Experience Design | Millner, Amon | MR 1:00-2:40pm | 204 | 4 | 30 | 4 | | DSN Depth |
| ENGR3240 | 01 | ENGR3240: Tell the Story of What You Make | Sauder, Tim | MR 2:50-5:30pm | 417 | 4 | 25 | 5 | | DSN Depth |
| ENGR3252 | 01 | ENGR3252: Technology, Accessiblilty and Design | Ruvolo, Paul | MR 2:50-5:10pm | 206 | 4 | 24 | 10 | | DSN Depth |
| ENGR3260 | 01 | ENGR3260: Design for Manufacturing | Barrett, Dave; Faas, Daniela | TF 2:50-4:30pm | 113 | 4 | 20 | 15 | Student must elect lab A or B, along with the standard TF 2:50-4:30pm | DSN Depth_ME Elective |
| ENGR3260 L | A B | ENGR3260 L: Design for Manufacturing Lab | Barrett, Dave; Faas, Daniela | Lab A: M 9:20am-12:00pm Lab B:T 9:20am-12:00pm | 128 | 0 | 10 per lab | 3 | Student must elect lab A or B, along with the standard TF 2:50-4:30pm | DSN Depth_ME Elective |
| ENGR3290 | 01 | ENGR3290: Affordable Design and Entrepreneurship | Graeff, Erhardt; Johansen, Elizabeth; Taha, Kofi | T 3:30-6:30pm R 3:30-5:30pm | Weissman Foundry | 4 | 5 | 25 | | DSN Depth |
| ENGR3330 | 01 | ENGR3330: Mechanical Design | Barrett, Dave; Faas, Daniela | MR 1:00-2:40pm | 328 | 4 | 25 | 10 | | Core ME |
| ENGR3345 | 01 | ENGR3345: Mechanical and Aerospace Systems | Lee, Chris | MR 10:20am-12:00pm | 328 | 4 | 25 | 10 | | ME Elective |
| ENGR3399 | SL | ENGR3399: Special Topics in Engineering: <i>Mechanical</i> Analysis | Fass, Daniela; with student instructors: Godinez, Carlos; Gosbee, Katarina; Takeda, Colin; Weil, Nathan | MR 8:30-10:10am | 328 | 2 | 20 | 5 | Student Led; 2 credits | Elective |
| ENGR3410 | 01 | ENGR3410: Computer Architecture | Uttamchandani, Avi | MW 6:00-7:40pm | 304 | 4 | 30 | 5 | | Core ECE |
| ENGR3420 | 01 | ENGR3420: Introduction to Analog and Digital Communication | Lohmeyer, Whitney | T 9:20am-12:00pm | 304 | 4 | 25 | 5 | | Core ECE |

| Course # | Sect # | Course Title | Instructor / Teaching Team | Time | Location: MAC (unless noted otherwise) | Credits | Enroll Limits | Waitlist | Notes | Curriculum Category |
|-------------------------|-----------|---|--|-----------------------------------|---|---------|-------------------|----------|---|--|
| ENGR3430 | 01 | ENGR3430: Eclectronics | Minch, Brad | TF 2:50-4:30pm | 304 | 4 | 20 | 5 | | Elective ECE |
| ENGR3499 | 01 | ENGR3499: Special Topics in Electrical and Computer Engineering: <i>Power Electronics</i> | Arnet, Beat | MR 10:20am-12:00pm | 304 | 4 | 20 | 5 | | ECE Elective |
| ENGR3515 | 01 | ENGR3515: Data Structures and Algorithims | Pucella, Riccardo | T 2:50-5:30pm | 128 | 4 | 25 | 10 | | Core E:C |
| ENGR3590 | 01 | ENGR3590: A Computational Introduction to Robotics | Ruvolo, Paul | TF 1:00-2:40pm | 206 | 4 | 24 | 10 | | Core E:Robo |
| ENGR3599 | 01 | ENGR3599: Special Topics in Computing: <i>Larger-scale</i> <i>Software Development</i> | Matsumoto, Steve | MR 1:00pm-2:40pm | 417 | 4 | 40 | na | | E:C; Computing Elective |
| ENGR3820_or _SCI3420 | 01 | ENGR3820_or_SCI3420: Failure Analysis and Prevention | Stolk, Jon | MR 1:00pm-2:40pm | 413 | 4 | 21 | 5 | Choose ENGR3820 for ME or ELECTIVE credit; Choose SCI3420 for ADV SCIENCE credit | ME or ENGR Elective; or Adv Science |
| ENGR4190 | 01 | ENGR4190: SCOPE: Senior Capstone Program in Engineering | Bloomer, Sarah; Ferzoco, Alessandra; Neeley, Lawrence; Stein, Lynn | W 8:30am-5:30pm F 8:30-10:10am | Varies | 4 | na | na | Registration via CAPSTONE Survey | CAPSTONE-SCOPE |
| ENGR4290 | 01 | ENGR4290: Affordable Design and Entrepreneurship Engineering Capstone | Graeff, Erhardt; Johansen, Elizabeth; Taha, Kofi | T 3:30-6:30pm R 3:30-5:30pm | Weissman Foundry | 4 | na | na | Registration via CAPSTONE Survey | CAPSTONE-ADE |
| ENGR4599 | 01 | ENGR4599: Entrepreneurial Engineering Capstone | Harris, Scott ; Miller, Scott | W 1:00-5:00pm | 113 | 4 | na | na | Registration via CAPSTONE Survey | CAPSTONE - EEC |
| ENGX2000 | 01 | ENGX2000: Quantitative Engineering Analysis 1 | Geddes, John; Lohmeyer, Whitney; TBD | MR 2:50-4:30pm | 113 126 128 | 4 | 90 | na | | Requirement |
| ENGX2010 | 01 | ENGX2010: Quantitative Engineering Analysis 3 | Geddes, John; Malley, Melinda; Tow, Emily | MR 1:00pm-2:40pm | 113 126 128 | 4 | 90 | na | | Requirement |
| MTH1111_SCI 1111 | 01-03 | MTH1111_SCI1111: Modeling and Simulation of the Physical World | del Rosario, Zachary; Matsumoto, Steve; TBD | TWF 2:50-4:30pm | 204 206 209 213 | 4 | 32 per section | na | | Requirement - ModSim |
| MTH2110 | 01 | MTH2110: Discrete Math | Spence Adams, Sarah | MR 8:30-10:10am | 326 | 4 | 27 | 10 | 2 sections; See note about timing of future offerings in the supplement | Math - Adv ECE; E:C |

| Course # | Sect # | Course Title | Instructor / Teaching Team | Time | Location: MAC (unless noted otherwise) | Credits | Enroll Limits | Waitlist | Notes | Curriculum Category |
|-------------------------|-----------|---|-------------------------------|---|---|---------|------------------|----------|--|----------------------|
| MTH2110 | 02 | MTH2110: Discrete Math | Spence Adams, Sarah | MR 10:20am-12:00pm | 326 | 4 | 27 | 10 | 2 sections; See note about timing of future offerings in the supplement | Math - Adv ECE; E:C |
| MTH2130 | 01 | MTH2130: Probability and Statistics Topic: Probabilistic Modeling (ProbMod) | Staff | MR 8:30-10:10am | 318 | 4 | 18 | 18 | | ProbStat |
| MTH2136_an d_SCl2136 | 01 | MTH2136_and_SCI2136: Astronomy and Statistics: AstroStats | Nugent, Carrie | TF 10:20am-12:00pm | MH 120 | 2+2 | 30 | 20 | | ProbStat |
| OIE1000 | 01 | OIE1000: Olin First Year Introduction (OFYI) | Waranyuwat, Adva | W 1:00-2:40pm | MH120 318 326 328 417 | 1 | 90 | na | | Required First Year |
| SCI1230 | 01 | SCI1230: Think Like a Biologist with Laboratory | Huang, Jean | MR 9:20am-12:00pm | 417 404 406 | 4 | 24 | 6 | | SCI - Bio Foundation |
| SCI1270 | 01 | SCI1270: Biomes, Climate Change, and Biodiversity (BCB) | Donis-Keller, Helen | TF 10:20am-12:00pm R 2:50-5:30pm (Lab) | 313 406 | 4 | 20 | 3 | | SCI - Bio Foundation |
| SCI1440 | 01 | SCI1440 Materials Creation, Consumption, and Impact | Stolk, Jon | MR 9:20am-12:00pm | 413 | 4 | 21 | 10 | | SCI - MatSci/Chem |
| SCI2299 | 01 | SCI2299: Special Topics in Biological Sciences: <i>How Your</i> Immune Systems Keeps You Alive | Pratt, Joanne | TF 1:00-2:40pm | 417 404 406 | 2 | 8 | 4 | Experimental Grading | SCI Elective |
| AWAY1000 | 01 | Study Away Program | Administration | na | na | 12 | na | na | Enroll in this course number to confirm your Study Away sesmester | |
| OIP1000 | 01 | The Olin Internship Practicum I | Alcott, Suzanne | na | na | 1 | na | na | See Post Graduate Planning to Enroll | |
| OIP1001 | 01 | The Olin Internship Practicum II | Alcott, Suzanne | na | na | 1 | na | na | See Post Graduate Planning to Enroll | |

| Color Key Offering Blocks | ECE | | | ENGR / DSN Cou | rses | | ENGR/Foundation Requirement | | | | | INTEGRA | | | | | |
|---|---|--|---|---|--|---|---|---|--|--|--|--|---|--|--|---|----------------------|
| | | | M | onday | | | | Tuesday | | | | | | | | | |
| 8:30 AM 9:20AM 10:10 AM 10:20 AM | ENGR 1200 Design Nature All Sections MAC 204/206/209/213 | MTH2130: Probability and Statistics Topic: Probabilistic Modeling (ProbMod) MAC 318 ENGR 3499 Special Topics in Elect & Computer Engr: Power | MTH 2110 -01 Discrete Math MAC 326 MTH 2110-0 2 Discrete Math MAC 326 | SCI 1230 Think Like a Biologist MAC 417/404/406 | ENGR 3260 L Design for Manufacturing LAB A MAC 128 | SCI 1440-01 Materials Creation, Consumption and Impact MAC 413 | ENGR3399 SL Spec Topics in ENGR: Mechanical Analysis Student Led MAC 328 ENGR3345 Mechanical and | ENGR 2320 Mechanics of Solids and Structures MAC 328 AHSE 1155 01 Identity from the Mind and t Brain - 318 AHSE 1100 History of Technology: A Cultural & Contectual | e ENGR 2110 03 & 04 Principles of Integ Engn | ENGR2299 Specials Topics in Design: Intro to Architecture and Urbanism MAC 417 | MTH2136 SCI2136 Astronomy and | ENGR 3420 Intro Analog and Digital Communicati on MAC 304 | ENGR 3260 L Design for Manufacturing LAB B MAC 128 | SCI 1270 Biomes, Climate Change | E N S N | NGR 2320 Mechanics of Solids and Structures MAC 328 | |
| 12:00 PM | | Electronics | | JNCH | | | Aerospace Systems MAC 328 | Approach - 326 AHSE 1160 Democracy & Media - 328 | MAC 306/309 | | Statistics: AstroStats MH 120 | | | and Biodiversity (BCB) | | | |
| 1:00 PM 2:40 PM | AHSE 1170 ENG; Infrastructur e Studies Analy MAC 318 MAC 113/1 | ENGR38: titative leering rsis 3 Failure Analysis and Prevent 26/128 MAC 41 | 20 o ENGR 3220 User Experience Design MAC 204 3 | 2 <u>ENGR359</u> <u>9:</u> Special Topics in Computin : <i>Larger-</i> <i>scale</i> <i>Software</i> | 2 ENGR 3330 Mechanical Design MAC 328 | AHSE 2199 Special Topics in AHS: Contemplatin g Education MAC 304 | AHSE2114 Session I Science Fiction and Historical Context MAC 326 <u>AHSE2116</u> Session II: Framing History through Comics | AHSE 1155 02 Identity from the Mind and the Brain 318 AHSE1122 The Wired Ensemble MAC 304 | ENGR 2355 01 Session I Intro Thermodyn MAC 328 ENGR 2365 01 Session II Intro Transport Phenomena MAC 328 | namics A Com Intro Rob | Der 3590 Apputational poduction to otics C 206 | SCI 2299 Special Topics n Bio Sci: dow Your mmune System Keeps You Alive VAC 417 / 404 406 | ENGR 2399 Session I Special Topics in ME: Applied Transport:MeasF lowSedimt MAC 326 | AHSE2135 Digital Photography: Seeing is Believing MAC 313 | OIE 10 Olin Fi Introdu MH 12 MAC 318/32 | 000 irst Year uction (OFYI) 20 26/328/417 | |
| 2:50 PM 4:30 PM | ENGR 3240 Tell the Story of What You Make MAC 417 MAC 417 MAC | AGX 2000 Lantitative Igineering Ialysis 1 AC 3/126/128 AC 3/126/128 AC | R 2110 01 iples of rated eering 306/309 | | AHSE 2515 Iterate MAC 328 | | ENGR 3252 Technology, Accessibility and Design MAC 206 2:50-5:10pm | MTH 1111/ SCI 1111EAll Sections ModSimMMAC 204/206/209/213M | INGR 3430 Electronics MAC 304 Intro MAC 304 ENC Ses Intro | GR 2355 02 sion I modynamics C 328 GR 2365 02 sion II Transport | ENGR 3515 Data Structures and Algorithms Tues 2:50- 5:30pm MAC 128 | ENGR 3260 Design for Manufacturin g MAC 113 | AHSE 2199B: Spec Topics n AHS: Understanding Institutions: Creating Change at Olin and in the World MAC 126 | ENGR 3290 & 4290 Affordable Design & Entrp Tues 3:30-6:30p Thurs 3:30- 5:300 | MTH 1 1111 All Sec ModSin MAC 204/20 | 111/ SCI ctions m 96/209/213 | |
| 6:00 PM | | | ENGR Compu Archite MAC 3 | 3410 uter ecture | | | | | CIE2223 Curricular Innov Experiment: To Cradle2cradl e or not? MAC 409 | AHSE 21 Special T in AHS: 1 Craft of Fiction MAC 326 | iopics The Jon- | | | Weissman Foundry | | E C A M | NGF omp rchite |



| AHSE | | | | SCI | | | | Math | | | | | | | Color Key- Offering Blocks | |
|--|---|--|---|--|--|--|---|--|---------------------------------|--|--|---|---|---|--|----------------------|
| | | | Thu | sday | | | | | | | | Fric | lay | | | |
| ENGR 1200 Design Nature All Sections | MTH2130 Probability Statistics Topic: Probabilis Modeling (ProbMod | tic MAC 326 | 10-01 Math | SCI 1230 Think Like a Biologist MAC | SCI 1440-01 Materials Creation, Consumption and Impact | ENGR3399 SL ENGR 2320 ENGR 4190 Spec Topics in ENGR: Mechanical Analysis Mechanics of Solids and Structures Mechanics of Solids and Structures SCOPE Materials Creation, Consumption and Impact Student Led MAC 328 MAC 4328 MAC 4328 | | <u>R 4190</u> OPE | | | 8:30 AM 9:20 AM 10:10 AM | | | | | |
| MAC 204/206/209/213 | 3 <u>ENGR 3499</u> Special Top Elect & Computer E <i>Power</i> <i>Electronics</i> MAC 304 | ics in ngr: MAC 326 | <u>0-02</u> Math | 417/404/406 | MAC 413 | | ENGR3345 Mechanical and Aerospace Systems MAC 328 | AHSE 1155 01 Identity from the Mind Brain - 318 AHSE 1100 History of Technology Cultural & Contextual Approach - 326 AHSE 1160 Democracy & Media - | and the /: A - 328 | ENGR 2 & 04 Principle Integrate Enginee MAC 30 | 2 <u>110 03</u> es of ed ering 06/309 | MTH2136 <u>S</u> Cl2136: Astronomy and Statistics: <i>AstroStats</i> MH 120 | SCI 1270 Biomes, Climate Change, and Biodiversity (BCB) MAC313 | | | 10:20 AM 12:00 PM |
| | | | LUI | NCH | 4 | | | | | | | LUN | ICH | | | |
| AHSE 1170 Infrastructure Studies MAC 318 | ENGX 2010 Quantitative Engineering Analysis 3 MAC 113/126/128 | ENGR3820_or SCI3420 Failure Analysis and Prevention | ENGR 3220 User Experien ce Design MAC 204 | ENGR3599: Special Topics in Computing: <i>Larger-scale</i> <i>Software</i> <i>Development</i> MAC 417 | ENGR 3330 Mechanical Design MAC 328 | AHSE 2199 Special Topics in AHS: Contemplat ng Education MAC 304 | AHSE2114 Session I Science Fiction and Historical Context MAC 326 AHSE2116 Session II: Framing | AHSE 1155 02 Identity from the M and the Brain MAC 318 AHSE1122 The Wired Ensem MAC 304 | /lind ble | ENGR23 Session Intro Thermod MAC 328 ENGR23 Session Intro Tran Phenome | 355 01 dynamics 8 365 01 II nsport ena | ENGR 3590 A Computational Introduction to Robotics MAC 206 | Special Topics in Bio Sci: How Your Immune System Keeps You Alive MAC 417 / 404/ | ENGR 2399 Session I Special Topics in ME: Applied Transport:Meas FlowSedimt MAC 326 | AHSE2135 Digital Photography: Seeing is Believing MAC 313 | 1:00 PM 2:40 PM |
| ENGR 3290 & 4290 ADE Tues 3:30- 6:30p Thurs 3:30-5:30p Weissman | ENGR 3240 Tell the Story of What You Make MAC 417 | ENGX 2000 Quantitative Engineering Analysis 1 MAC 113/126/128 | ENGR 2110 01 & 02 Principles of Integrated Engineerin | Biomes, Climate Change, and Biodiversity (BCB) Lab MAC 313/406 | | | ENGR 3252 Technology, Accessibility and Design MAC 206 2:50-5:10pm | MTH 1111/ SCI 1111- All Sections ModSim MAC 204/206/209/213 | ENGF Eclec MAC | R 3430 tronics 304 | ENGR Sessio Intro TH MAC 33 ENGR Sessio Intro Tr MAC 33 | 2355 02 on I hermodynamics 28 2365 02 on II ransport Phenome 28 | ENGR 3260 Design for Manufacturing MAC 113 | | | 2:50 PM 4:30 PM |
| AHSE 0112 Olin Conducto Orchestra MAC 318 / 32 | orless 26 | CIE2223 Curricula Innov Experime To Cradle2c or not? | ent: cradle | | | | | | | | (| Commun | ity Time | | | 5:30 PM 6:00 PM |
| | | MAC 409 | 9 | | | | | page 1 of 1 | | | | | | | | 8:40 PM |