**CEMS 050 – CEMS First Year Seminar (1 credit)**

**Fall 2022**

**The University of Vermont**

**WEEKLY SCHEDULE**

You will attend one 75 minute lecture and one 50 minute lab each week:

**Lectures**

A Thursday 08:30-9:45 AM Billings Lecture Hall Courtney Giles

B Thursday 10:05-11:20 AM Innovation E102 Courtney Giles

**Labs**

 *L04* Wednesday 12:00-12:50 PM Innovation E210 Courtney Giles

 *L05* Wednesday 01:10-02:00 PM Innovation E210 Jason Hibbeler

 *L07* Friday 12:00-12:50 PM Innovation E210 Joseph Kudrle

 *L08* Friday 01:10-02:00 PM Innovation E210 Linda Schadler

**OUR COMMUNITY!**

**CEMS 050 INSTRUCTORS**

**Courtney Giles, Ph.D.**

Lecturer, Department of Civil & Environmental Engineering

Office: Votey 109 Email: cdgiles@uvm.edu

Office Hours: Wednesday 10:00-11:30 AM; Thursday 2:00-3:30 PM

**Jason Hibbeler, Ph.D.**

Senior Lecturer, Department of Computer Science

Office: Innovation E315 Email: Jason.Hibbeler@uvm.edu

Office Hours: Tuesday/Thursday 1:15-3:00 PM

**Linda Schadler, Ph.D.**

Dean, College of Engineering & Mathematical Sciences

Professor, Department of Mechanical Engineering

Office: Votey 109 Email: lsf@uvm.edu

Office Hours: Friday 12:00-1:00 PM and by appointment

**Joseph Kudrle, Ph.D.**

Senior Lecturer, Department of Mathematics & Statistics

Office: Innovation E307 Email: joseph.kudrle@uvm.edu

Office Hours: Friday 9:00-10:00 AM

**CEMS PEER MENTORS**

As a first year student in CEMS, you will be assigned a peer mentor who will be available to answer questions about this course or any of the other many resources, experiences, and opportunities at UVM. Mentors are other CEMS students that have taken this course in past, usually in their second, third, or fourth year of study. **You will contacted by your mentor in the first two weeks of classes, so look out for an email or note in MS TEAMS!** You may also see your mentor during your CEMS 050 lab sessions. Your mentor may share upcoming opportunities and events on campus or invite you to extra curricular / social activities. This is a great way to learn more about everything that is going on at UVM and in the Burlington area. You and your mentor will figure out the best way to communicate. Usually, via email, MS TEAMS, or text. You can learn more about the CEMS Peer Mentoring program and this year’s mentors [here](https://web-gw1.uvm.edu/cems/cems-peer-mentor-internship-program).

**COURSE COLLABORATORS –** All of the people that have a hand in creating this course:

Corey Berman Project Partner UVM Recyling & Zero Waste Program

Abby Bleything Project Partner UVM Transportation & Parking Services

Paul Campo Project Partner UVM Custodial Services

KC Williams Asst Dean Office of Equity, Belonging & Student Engagement

Annie Valentine Education & Training UVM Center for Health & Wellbeing

Susan Munkres Director UVM Office of Community-Engaged Learning

John Lens Capstone Instructor Civil & Environmental Engineering

Dustin Rand Senior Design Instructor Mechanical Engineering

Catherine Merrill Senior Lecturer Statistics

Karen Benway Senior Lecturer Statistics

James Catalan Lab Engineer CEMS Deans Office

Jeffrey Marshall Assoc. Dean of Research Mechanical Engineering

Sheila Boland-Chira Director UVM Writing Center

Graham Sherriff Research Librarian UVM Libraries

Deanna Garrett-Ostermiller Asst Director UVM Center for Student Conduct

Matt Manz Director CEMS Office of Student Services

Amanda Stemple Asst Director CEMS Office of Student Services

Dana Mitchell Advisor CEMS Office of Student Services

Michael Rose Advisor CEMS Office of Student Services

Ann Chiarenzelli Advisor CEMS Office of Student Services

Holly Fosher Career Readiness Coord. CEMS Office of Student Services

**ABOUT THIS COURSE**

**COURSE DESCRIPTION.** This 1 credit seminar is specifically designed for first year students in the College of Engineering and Mathematical Sciences. Students will explore the many opportunities UVM has to offer and learn about the various programs and extracurricular opportunities in CEMS. Students will engage in the design process as it relates to the CEMS disciplines and learn strategies for building equitable and effective teams. These skills will be developed in the context of a semester-long project with the aim of solving a campus-based problem that relates to the National Academy of Engineering (NAE) [Grand Challenges](http://www.engineeringchallenges.org/) themes. Projects typicall fall into one of these categories: *Resources@UVM*, *Energy@UVM*, and *Health@UVM*. You will choose the project you would like to work on. Once selected, you will work with 3-4 other students for the remainder of the semester to develop a proposed solution. At the end of the semester, you and your team (along with the ~80 other teams in the course!) will present your project during a final poster presentation. **Final presentations will occur instead of a final exam, during the final exam period on Tuesday December 13, 2022 in the Grand Maple Ballroom (UVM Davis Center) from 10:30 AM to 1:15 PM.**

# Why this course was created:

1. To introduce students to CEMS programs (Civil & Environmental Engineering, Electrical & Biomedical Engineering, Mechanical Engineering, Mathematics & Statistics, Computer Science, Data Science, Computer Science and Information Systems, Engineering, Engineering Management, Physics) and extracurricular opportunities
2. To introduce students to the design thinking process and strategies for solving open-ended problems
3. To help students develop an ability to work effectively in teams
4. To help students build a network of support at UVM, including peers, instructors, and staff
5. To provide opportunities for students to practice important skills for personal and professional success

# LEARNING OBJECTIVES

By the end of the semester, you will be able to:

1. Apply the core elements of the design thinking process and propose a solution to a campus-based problem
2. Practice the key components of effective and inclusive team work including self-awareness, reflection, communication, and goal setting
3. Effectively communicate the technical aspects of your project to an audience of instructors, mentors, peers, and project partners
4. Reflect on ethical and/ or societal issues as related to your semester project or field of study
5. Gather and evaluate relevant and reliable information and data from a variety of sources
6. Demonstrate key skills necessary for success in college and beyond

**REQUIRED MATERIALS**

**Text.** None required

**Technology**

* Laptop or other device with functioning webcam, microphone, and audio (See [CEMS Laptop Recommendations](https://www.uvm.edu/cems/computer_services); If you need financial assistance for securing a laptop for your courses, please contact Assistant Dean KC Williams in the CEMS Office of Equity, Belonging, and Student Engagement: KC.Williams@uvm.edu ).
* iClicker or iClicker App on your mobile device.
	+ Please have your iClicker account setup prior to the first day of class. See [iClicker Resources for Students](https://www.uvm.edu/it/kb/article/iclicker-resources-for-students/) for detailed instructions.
		- **Join LECTURE Section A:** [**https://join.iclicker.com/259X8**](https://join.iclicker.com/259X8)
			* **Course ID:** CEMS050\_202209\_A
			* **Code:** 259X8
		- **Join LECTURE Section B:** [**https://join.iclicker.com/BQ1X4**](https://join.iclicker.com/BQ1X4)
			* **Course ID:** CEMS050\_202209\_B
			* **Code:** BQ1X4
	+ We will use iClicker for attendance and classroom polls.
* Please also review this [technology checklist](https://www.uvm.edu/it/kb/student-technology-resources/) to make sure you are ready for classes.
* Students should contact the Helpline (802-656-2604) for support with technical issues.

**LEARNING PLATFORMS**

* Blackboard (UVM’s Learning Management System, free to all students)
	+ Used for all course materials, assignment descriptions, grades, and submitting some assignments.
* MS Forms
	+ Used to submit the majority of assignments. Links will be provided in the assignment descriptions on Blackboard.
* MS Teams (UVM’s conferencing software, free to all students)
	+ Used for file sharing and organization during team projects.
* Flipgrid (Social media/discussion App, free to all students)
	+ Used in Assignment 3. Link will be provided in the assignment description on Blackboard.

**COURSE POLICIES**

**INCLUSION STATEMENT.**Our intention is for CEMS to be a place where you will be treated with respect and kindness. We welcome individuals of all ages, backgrounds, beliefs, interests, ethnicities, genders, gender identities, gender expressions, national origins, religious affiliations, sexual orientations, ability – and other visible and nonvisible differences. All members of the College are expected to contribute to a respectful, welcoming and inclusive environment for every other member of the community. If you ever feel that you have been unfairly treated or judged by an instructor, a mentor, another student, or another member of the CEMS community, please let someone know. Your instructors and advisors in the [CEMS Office of Student Services](https://www.uvm.edu/cems/student-services) and the [CEMS Office of Equity, Belonging, and Student Engagement](https://www.uvm.edu/cems/ebse-home) are available to discuss any concerns or you can report an incident of bias through the [Campus Bias Response Program](https://www.uvm.edu/deanofstudents/bias_response).

**COMMUNICATION** is a two-way street. Students and instructors are expected to communicate with eachother in a *respectful and constructive* way. Below are the expectations for communication in this course:

INSTRUCTORS

* All communication for this course will be provided through Blackboard and email.
* Course materials and lecture notes will be made available on Blackboard in a timely manner.
* Weekly emails will be sent to students via Blackboard to communicate upcoming assignments, due dates, and in-class activities.
* The instructor may email individual students to check in on progress or as other issues arise.

STUDENTS

* **Check your UVM e-mail *regularly*** for announcements and course updates.
* **Email the instructor *early*** about absences or missed due dates.
* **Email the instructor with *constructive* feedback, suggestions or questions** *early and often.*
* **Practice professional and friendly *email etiquette***. This means, providing feedback, questions, or requests in a *constructive* and professional manner. Avoid *destructive* or *negative* communication (e.g., petty complaints, demands). Begin emails “Dear Dr. X”, use complete sentences, and sign your name at the end.
* **Practice professional and friendly *in-class etiquette***. Raise your hand, avoid speaking over others, treat your classmates and teachers with respect and *listen* to all perspectives with an open mind.
* **Midterm and final course evaluations.** You will be asked to provide feedback to your instructors in surveys during the middle and end of the semester. Questions include rating the difficulty of the course, the effectiveness of the instructor, and the quality of the lab experience. Please be specific and constructive in your comments so that your feedback can be used to improve the course!

# ASSESSMENT AND GRADING

Your grade in this class will be assessed based on the following criteria: participation in class and lab sessions (Participation), your contribution to your project team (Teamwork), completion of 9 additonal homework assignments (Assignments), and your Final Project Presentation.

* ***Attendance & Participation.*** You are expected to be an active participant in this course. This means attending all lectures and labs as well as being on time. Please come early enough to be settled in your seat when class starts. If you cannot attend a class or need to be late, please notify the instructor and your teammates ahead of time. If you miss a class or lab without notifying the instructor at least one week in advance, you will lose participation points (see also “*What to do if I fall ill*” below). Attendance represents 15% of your final grade and will be tracked via iClicker at the beginning of each class.
* ***Teamwork.*** Your contribution to your project teamwill be assessed based on two dedicated assignments including your team contract and team evaluation form. Teamwork represents 15% of your final grade.
* ***Assignments.*** Homework assignments are designed to support the development of your semester project (5-15 pts each). Rubrics detail how your work is assessed and will be provided for each assignment. Assignments represent 50% of your final grade.
	+ ***Late Assignments*** “Late” is defined as one minute past the due date time. For example, if an assignment is due at 11:59 PM on Monday 9/9 and is submitted at 12:01 AM on Tuesday 9/10 (two minutes late), that assignment will lose one point. *You will lose one point per day that an assignment is late.*
* ***Final Project*** includes the submission of the final poster file the week before presentation day AND presentation of the poster on 13 December 2022.

**Summary of Grade Break-down:**

|  |  |  |
| --- | --- | --- |
| **Item** | **% Final Grade**  | **Points** |
| Attendance & Participation | 15% | 30 |
| Teamwork | 15% | 30 |
| Assignments | 50% | 100 |
| Final Project | 20% | 40 |

*97+* = A+; *93-96* = A; *90-92* = A- ; *87-89* = B+; *83-86* = B; *80-82* = B-; *77-79* = C+; *73-76* = C; *70-72* = C-; *67-69* = D+; *63-66* = D; *60-62* = D-; *Below 60* = F.

***How can I check my grade?*** Grades will be updated regularly in Blackboard under ‘My Grades’. You will be able to review feedback from instructors and CPMs here as well. If you have a question about your grade, please contact the instructor as soon as possible.

**WHAT TO DO IF YOU FALL ILL.** If you fall ill, please notify Student Health Services (SHS) and your instructor as early as possible. SHS will notify CEMS Student Services, which will then send a formal request for flexibility to your instructors. It is your responsibility to follow up with your instructor at your earliest convenience, once you are well again, to make up any missed work. If you fail to do this in a timely manner, you may lose critical points in the course. Non-medical absences will result in lost points and only medical absences that have been confirmed by SHS and CEMS Student Services will be excused.

**PROPER USE OF ELECTRONICS.** Students attending class meetings should only use laptops, tablets and smartphones when prompted by the instructor. Please be courteous to your instructors, mentors, and guest presenters and give them your full attention when they are speaking.

**UVM POLICIES**

**ACCESSIBILITY.** In keeping with University policy, any student with a documented disability interested in utilizing accommodations should contact Student Accessibility Services (SAS). SAS works with students to create reasonable and appropriate accommodations via an accommodation letter to their professors as early as possible each semester. Contact SAS: A170 Living/Learning Center; 802-656-7753; access@uvm.edu; or [www.uvm.edu/access.](http://www.uvm.edu/access)

**RELIGIOUS HOLIDAYS.** Students have the right to practice the religion of their choice. Please submit in writing your documented religious holiday schedule for the semester to cdgiles@uvm.edu by the end of the second week of classes (Friday, September 11, 2020).

**ACADEMIC INTEGRITY**. The University of Vermont and the College Engineering & Mathematical Sciences are learning communities. Consistent with the University’s mission and purpose, and the values the College seeks to foster within its community, it is expected that academic honesty and integrity guide the actions of all its members. **It is the responsibility of every person in the academic community to ensure that honesty, integrity, and transparency are upheld by faculty and students alike.** Violations of the Academic Integrity Policy may result in an “F” on the work involved or in the course. Academic dishonesty not only violates the Academic Integrity Policy, but also may be grounds for probation, suspension, and/or expulsion. <http://www.uvm.edu/~uvmppg/ppg/student/acadintegrity.pdf>

# COURSE EVALUATIONS. All students are expected to complete a mid-term evaluation and final evaluation of each course they are enrolled in at its conclusion. Course evaluations are anonymous and confidential. You will be asked to rate how much you learned, course difficulty, and the effectiveness of the instructor. You will also be asked to provide open-ended feedback on the lab experience and effectiveness of the teaching assistant (or mentors in this course). The information gained through the course evaluation, including constructive criticisms of the instructor, will be used to improve future versions of the course.

**FERPA RIGHTS DISCLOSURE.** The purpose of this policy is to communicate the rights of students regarding access to, and privacy of their student educational records as provided for in the Family Educational Rights and Privacy Act (FERPA) of 1974. <http://catalogue.uvm.edu/undergraduate/academicinfo/ferparightsdisclosure/>

**HEALTH & WELL-BEING.** The Center for Health & Wellbeing (CHWB) at UVM offers a wide range of services to support your mind, body, and soul while you're at UVM. The Student Health Services staff of board certified physicians, physician assistants, nurse practitioners, nurses, and dietitians work with patients and collaborate with other CHWB providers to ensure personalized and timely care to UVM students. Counseling & Psychiatry Services (CAPS) offers short-term individual counseling, urgent needs counseling, group counseling, outreach and education, psychiatry, referrals, and consultation services. To learn more: <http://www.uvm.edu/~chwb/>

**C.A.R.E.** If you are concerned about a UVM community member or are concerned about a specific event, we encourage you to contact the Dean of Students Office (802-656-3380). If you would like to remain anonymous, you can report your concerns online by visiting the Dean of Students website at <https://www.uvm.edu/studentaffairs>

**SAFETY.** UVM promotes a Culture of Safety. CEMS 050 lab sessions will be held in the CEMS Fabrication Lab (FabLab) space in Votey 242. This space is full of 3D printers, laser-cutter/engravers, soldering equipment, and associated physical hazards. Therefore, while working in this space, students must follow UVM Laboratory Safety Policies and wear appropriate Personal Protective Equipment (PPE). Depending on the nature of the activity, students may be required to wear PPE (provided) while working in Votey 242. Information on UVM Safety Policies can be found here: <https://www.uvm.edu/riskmanagement/safety>

**STATEMENT ON ALCOHOL & CANNABIS IN THE ACADEMIC ENVIRONMENT.** As a faculty member, I want you to get the most you can out of your time at UVM. You play a crucial role in your education and in your readiness to learn and acquire knowledge. It is important to note that alcohol and cannabis can seriously impair your ability to learn and retain information, not only in the moment you may be using, but up to 48 hours or more afterwards. New research shows that the human brain is not fully developed until you are 25 years old. How you treat your brain now will have long lasting impacts on your life. In addition, alcohol and cannabis can:

* Cause issues with attention, memory and concentration
* Negatively impact the quality of how information is processed and ultimately stored
* Affect sleep patterns, which interferes with long-term memory formation

It is my expectation that you will do everything you can to optimize your learning and to fully participate in this course. Here is an interesting article on the impacts of cannabis on developing minds: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3930618/>

**SYLLABUS & COURSE CHANGES.** This syllabus is subject to change with verbal and/or electronic notice.The University of Vermont reserves the right to make changes in the course offerings, mode of delivery, degree requirements, charges, regulations, and procedures contained herein as educational, financial, and health, safety, and welfare considerations require, or as necessary to be compliant with governmental, accreditation, or public health directives.

# COURSE SCHEDULE

*Important Note:* The ‘week’ in CEMS 050 will always begin on a Thursday with lecture and end on the following Wednesday with the last lab that is offered. Therefore, the first class meeting of the semester will occur on Thursday (9/1) followed by a lab on either Friday (9/2; section L07 or L08) or Wednesday (9/7; section L04 or L05) the following week. All weeks in the course will be staggered like this as shown in the course schedule below. This also means that **there are no Wednesday labs (8/31) during the first week of classes**.

|  |  |
| --- | --- |
| Week # and Dates  | Class and Lab Topics and Activities |
| **Week 1**Thurs. 9/1 – Wed. 9/7/22*There are no labs on Wednesday (8/31)* *CEMS 050 officially starts with the lecture on Thursday 9/1!* | ***Lecture:*** *Welcome & Introduction**(Thursday 9/1/22)*We will review the course structure and syllabus, expectations and grading as well as the key goals of the course and learning outcomes (what you will learn!). You will meet the College’s Lab Safety Officer and learn about CEMS safety requirements (10 min). Pay attention! You will need this information later!***Lab:*** *Time-Management and Self Reflection**(begins Friday 9/2/22). If your lab is on a Wednesday, your first lab will occur on Wednesday (9/7/22).* We cover two important topics in lab this week:* *Time Management* – Being able to manage your time and anticipate important events and assignments will help you balance the many demands of college. We will discuss one tool for this, the academic planner, and expectations for Assignment 1.
* *Self-Awareness* – The ability to reflect on your own strengths and areas for improvement can help with goal setting and stress-management. We will discuss examples of how self-reflection strategies can be used to help navigate life’s challenges and you will complete a short self-reflection survey.

***Assignment 1:*** *Individual Assignment***.** *Part 1:* Academic planner (in whatever format you choose) filled in for the Fall 2022 semester. *Part 2:* Meet with your peer mentor! See *Blackboard/Course Materials/Week 1/* for details. |
| **Week 2**Thurs. 9/8 – Wed. 9/14/22 | ***Lecture:*** *Being a Student in CEMS: Part 1 (Thursday 9/8/22)*You will learn about different resources to help you plan for academic success, including:* CEMS Student Services academic advisors meet and greet
* Where and how to ask for help with academic planning
* Where and how to ask for help with your coursework
* Student panel on academic success tips
* Different styles and strategies of learning

***Lab:*** Learning Strategies Inventory and Learning Action Plans *(begins Friday 9/9/22)*You will reflect on the different learning strategies you use and develop a learning action plan for two other courses of your choosing (Assignment 2). **Assignment 2:** Individual Assignment. Learning Strategies Inventory and Learning Action Plans. See *Blackboard/Course Materials/Week 2/* for details. |
| **Week 3**Thurs. 9/15 – Wed. 9/21/22 | ***Lecture:*** *Being a Student in CEMS: Part 2 (Thursday 9/15/22)*You will learn about different opportunities and resources to stay healthy and find community:* Center for Health & Wellbeing, Living Well, and Health Hub
* CEMS Office of Equity, Belonging, and Student Engagement
* UVM Bored activities and events
* Navigating mental health problems

***Lab:*** Campus Scavenger Hunt *(begins Friday 9/16/22)*You will meet in lab and then head out to campus for a scavenger hunt of key locations. The person/people that collect the most selfies will win a pile o’ CEMS swag.**Assignment 3**: Individual Assignment. Discussion Board Post: UVM Bored – Write about one new event that you learned about on UVM Bored that you attended or plan to attend. See *Blackboard/Course Materials/Week 3/* for details. |
| **Week 4**Thurs. 9/22 – Wed. 9/28/22 | ***Lecture:*** *Intro to the Design Process and the Capstone Experience in CEMS (Thursday 9/22/22)*We will begin our conversation on the design process and describe the stages of Design Thinking that we will follow in this course. Micro-design Project topics will be revealed and labs for weeks 4-6 will be described. Capstone instructors will visit to share information about the culminating experience that all students in CEMS go through in their final year of study.***Lab:*** *Micro-design Projects I (begins Friday 9/23/22)*Students will begin working on a Micro-design Project in small groups. Micro-design projects will last three weeks and will give students practice working in teams and applying the steps of the design thinking process before jumping into their final projects. Empathizing, defining, and ideation will be the focus in part 1.***Assignment 4***: *Individual Assignment*. Reading and Flipgrid Post on Design Thinking. See *Blackboard/Course Materials/Week 4* for details. |
| **Week 5**Thurs. 9/29 – Wed. 10/5/22 | ***Lecture****: Overview of Final Design Projects**(Thursday 9/29/22)*We will discuss this year’s course project themes and specific project challenges, which you will work on in teams later this semester. Faculty and staff from campus organizations (Project Partners) will visit to describe a particular problem they are facing and the project challenge that they hope the class can help them with. ***Lab****: Micro-design Projects II (begins Friday 9/30/22)*Students will continue working on their Micro-design Projects. Prototyping will be the focus of part 2. ***Assignment 5:*** *Individual Assignment*. Part 1: Reading and discussion board post about project interests. Part 2: Project Decision form. See *Blackboard/Course Materials/Week 5* for details. |
| **Week 6**Thurs. 10/6 – Wed. 10/12/22  | ***Lecture:*** *Empathizing & Research**(Thursday 10/6/22)*We will discuss steps 1 and 2 of the design process in greater depth: (1) Empathize and (2) Define. These steps require that you understand the human-centered need of the problem (empathize) and the constraints of the system. Unless you are already an expert in energy, resource, and health solutions, you will likely need to learn more about these topics to define the problem and begin working toward a solution to your final project. This is where research comes in. In the second part of this class, we will meet with a research librarian from the Howe Library and a tutor from the [UVM Writing Center](https://www.uvm.edu/uwi/writingcenter) (30 min) who will provide resources and best practices for finding credible information on your project and for building citations and bibliographies (needed for Assignment 6 and many, many other courses in CEMS!). ***Lab:*** *MicroDesign Projects III (begins Friday 10/7/22)*Students will test their MicroDesign prototypes. Individual team members must complete the *MicroDesign Debrief form* to receive credit for this design exercise.***Assignment 6:*** *Part 1:* Complete research tutorials; *Part 2:* Build bibliography of references you find on your project topic. See *Blackboard/Course Materials/Week 6/* for details. |
| **Week 7**Thurs. 10/13 – Wed. 10/19/22 | ***Lecture:*** *Being a Student in CEMS: Part 3 of 3 (Thursday 10/13/22)*You will learn about different ‘high impact’ and ‘co-curricular’ learning opportunities in CEMS (i.e., activities pursued *in addition* *to* or *alongside* coursework), including:* Study Abroad
* Service Learning Courses
* Undergraduate Research
* Internships and Cooperative Education
* Career Readiness Planning

***Lab:*** *Career Readiness Resources (begins Friday 10/14/22)*You will work on Assignment 7 to set up the Handshake App (for internship and job opportunities) and to build a one page resume. NOTE: Friday 10/14/22 is Fall Recess (no classes). Therefore, this lab will be completed online (See Blackboard/Course Materials/Week 7/Lab.***Assignment 7:*** *Individual Assignment.* Resume and Handshake Profile*.* See *Blackboard/Course Materials/Week 7/* for details. |
| **Week 8** Thurs. 10/20 – Wed. 10/26/22 | ***Lecture:*** *CEMS Academic Program Visits: Part 1 of 2 (10/27/22)*CEMS faculty will visit to describe majors in the college and the many interesting opportunities that exist in each. In Part 1, you will learn about the following programs: Mathematics, Statistics, Data Science, Computer Science, Computer Science and Information Systems and Physics. We will also discuss the importance of teamwork and how it relates to this week’s lab and assignment.***Lab:*** *Final Project Teams & Team Contracts (begins Friday 10/21/22)*Students will assemble in their final project teams for the first time to develop a team contract (Assignment 9).***Assignment 9:*** *Team Assignment.* Each team submits a single copy of their team contract. See *Blackboard/Course Materials/Week 8* for details. |
| **Week 9**Thurs. 10/27 – Wed. 11/2/22 | ***Lecture:*** *Spring Semester Planning (Thursday 10/20/22)*Members of CEMS Student Services will visit and discuss how to prepare for [Spring 2023 registration](https://www.uvm.edu/registrar/registration-schedule) including degree requirements and schedule mapping (45 min). ***Lab:*** *Spring 2023 Schedule Building**(begins Friday 10/28/2022)*CEMS Student Services Advisors will join us in lab to provide assistance as you design your course schedule for the spring semester.***Assignment 8:*** *Individual Assignment.* Two drafts of your spring 2023 schedule. See *Blackboard/Course Materials/Week 9/* for details. |
| **Week 10**Thurs. 11/3 – Wed. 11/9/22 | ***Lecture:*** *CEMS Academic Program Visits: Part 2 of 2 (11/3/22)*CEMS faculty will visit to describe engineering majors and opportunities in the college, including: Biomedical Engineering, Civil Engineering, Electrical Engineering, Environmental Engineering, Mechanical Engineering and Engineering Management. We will also discuss the Define stage of design thinking in greater depth and how it relates to lab this week.***Lab:*** *Empathize and Define the Problem**(begins Friday 11/4/22)*Students will meet in final project teams to share what they learned about their project topic in Assignment 6 and to begin defining their problem statement (Assignment 10).***Assignment 10:*** *Team Assignment.*Each team submits a draft Problem Statement in your MS TEAMS Group Channel. See *Blackboard/Course Materials/Week 10* for details. |
| **Week 11**Thurs. 11/10 – Wed. 11/16/22 | ***Lecture:*** *Ideation & Prototyping Techniques (11/10/22)*We will discuss different methods that can be helpful for generating ideas as a team and how you will use these methods to work on a solution to your team’s project challenge. Then, we will discuss different ways to think about prototyping (not all physical!) and different resources available to CEMS students, including the CEMS FabLab and Machine Shop.***Lab:*** *Ideation Station*Teams will work together to generate ideas for solving their project challenge using one of the ideation techniques covered during lecture.***Assignment 11:*** *Individual Assignment.* Discussion board post on ideas explored with your team during ‘Ideation Station’. See *Blackboard/Course Materials/Week 11/* for more details. |
| **Week 12**Thurs. 11/17, Friday 11/18, Wed. 11/30/22  | ***Lecture:*** *Technical Communication and Giving Successful Presentations**(Thursday 11/17/22)*We will talk about what we mean by ‘technical communication’ in general and poster presentations specifically. We will review expectations and requirements for preparing the final poster for your project. CEMS undergraduate and graduate students will visit to give their poster presentation and talk about tips for preparing and presenting.***Lab:*** *Work on your project! (begins Friday 11/17/22)*You will work with your team on the final poster (template provided) and develop a plan for completing the poster as a team by the due date (Assignment 12).*Please note lab dates for this week! Due to Thanksgiving Break, labs will meet on Friday 11/18 (L07, L08) and Wednesday 11/30 (AFTER BREAK; L04, L05).* ***Assignment 12:*** *Team Assignment. Final Poster file due Thursday 12/1/22 @ 11:59 PM.* See *Backboard/Course Materials/Week 12/ for more details.* |
| **Week 13** | **THANKSGIVING RECESS – NO CLASSES (Monday 11/21 – 11/25/22)** |
| **Week 14** Thurs. 12/1 –Weds 12/7/22  | ***Lecture:*** *Data Analysis & Excel Basics**(Thursday 12/1/22)*This week we will discuss different methods of data processing and analysis as well as how to use Microsoft Excel for basic data analysis. After this meeting, students will break-out into groups to work through a simple exercise in Excel. You may find these skills useful in future courses!***Assignment 12 due Thursday 12/1/22 @ 11:59 PM – Final Poster File******Lab:*** *Poster Presentation Practice (Begins Friday 12/2/22)*We will use this lab period to print posters and practice presenting your projects. You will have the opportunity to present your work to peer mentors and instructors and receive constructive feedback. Use the Poster Presentation Rubric to better-understand how your presentation will be evaluated on presentation day (12/13/22). Follow the guidelines provided on *Blackboard/Course Materials/Finals Week*. |
| **Week 15**Lecture ONLY on 12/8/22 | ***Lecture:*** *Final Class Meeting (Thursday 12/8/22)*We will use the final class meeting to go over final reminders and activities including:* Academic Integrity Reminders with Deanna Garrett-Ostermiller, UVM Center for Student Conduct
* Presentation Day Logistics
* End-of-Semester Critical Reflection (Assignment 15)
* Final Course Evaluations

***Assignment 15***: *Individual Assignment*. Complete the *CEMS 050 End-of-Semester Critical Reflection* form. See *Blackboard/Course Materials/ Week 15* for details. |
| **Finals Week**Tuesday 12/13/22 @10:30 AM – 1:15 PM in the Grand Maple Ballroom, Davis Center | ***Final Project Presentations*** *(Tuesday 12/13/22)*Teams will present their final projects. CEMS Faculty, Staff, Project Partners, and peer mentors will attend and provide feedback. All are welcome! Come prepared to celebrate the end of your first semester at UVM! |