Introduction to computer programming principles using MATLAB, with applications chosen from civil, electrical, environmental, and mechanical engineering.

**Professor**
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Office hours:
Mondays 1:30-3:00 p.m.
Wednesdays 10:30 a.m. - Noon

Office hours:
Tuesdays Noon – 2:00 p.m.

See Blackboard "Getting Help" for many additional hours offered by our TA staff.

**Required Materials**
- **Laptop** installed with MATLAB software (free, courtesy of your UVM Technology Fee). Installation instructions are here. **BRING LAPTOPS TO CLASS EACH WED/THURS.**
- **iClicker** Plus standalone device (must REGISTER on BB) or use REEF mobile app. **BRING iClicker/REEF app to EVERY CLASS MEETING.**

**Composition of Course Grade**

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Online BB Activities</td>
<td>10%</td>
</tr>
<tr>
<td>In-class Clicker Quizzes*</td>
<td>10%</td>
</tr>
<tr>
<td>HW Coding Assignments</td>
<td>25%</td>
</tr>
<tr>
<td>Hourly Exams (15% each)</td>
<td>30%</td>
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<tr>
<td>Final Exam (Based on Final Project)</td>
<td>25%</td>
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*Lowest grade will be dropped

**Exam Dates**

Exam 1: We/Th Feb 8/9 During regularly scheduled class meetings
Exam 2: Mo/Tu Mar 27/28 During regularly scheduled class meetings

Final exam date to be determined (please disregard Registrar grid until informed otherwise).

You will not be permitted to take the final exam ahead of schedule. Please plan your travels accordingly.
**CS 20 Online Course Spaces**

1. Use [Blackboard](https://blackboard.columbia.edu) to access all assignments and support materials.
   - *Syllabus* provides overview and expectations
   - *Week at a Glance* lays out the entire semester, week by week.
   - *Course Materials* folders contain each week’s lessons and assignments
   - *Getting Help* links to many additional help hours, plus grader contact information

2. Use [Piazza](https://piazza.com) for all class discussion and course-related e-mails. This system is designed to get you help quickly and efficiently from classmates, G/TAs, and professor.
   - Post your question to “Entire Class” or indicate specific individuals by name.
   - Use “Instructors” to reach entire team (Instructor + G/TAs).
   - Do NOT include your homework solution in questions you post to Entire Class.
   - You are also encouraged to answer questions your classmates have posted. *(Student answers will be vetted by a member of the instruction team.)*

**Policies and Expectations**

1. Meeting deadlines is a highly valued professional skill. Unburdened by backlog, you are primed to meet the next project with new skills and optimal focus. Homeworks submitted within 24 hours after the deadline will be assessed a **20% late penalty**. Homeworks submitted more than 24 hours beyond the deadline will receive a **zero**.

2. **MATLAB code that does not compile will earn a zero.** Be sure your scripts and functions run with NO SYNTAX OR RUNTIME ERRORS. These show as “red ink” messages in the Command Window. Before submission, check your work by using the Run button in the MATLAB desktop.

3. Our guarantee: Assignment feedback will be available one week after the due date. Any grade appeal must be submitted to GTA Anna Waldron within **one week** after grades are posted. In your appeal, clearly explain why you think you deserve a different grade.

4. You are expected to prepare for clicker quizzes in advance (see *Course Materials*) and attend all class meetings. To accommodate unavoidable classroom absences, the lowest of your iClicker/REEF quiz grades will be dropped. **There are no quiz makeups.** You will not be allowed to make up clicker questions missed due to lateness, forgotten clickers, or dead batteries.

5. You may not miss an exam without prior permission, and only then in case of an exceptional and documented situation. An undocumented exam absence will result in an exam grade of zero.

6. As with muscle memory, coding is best done by doing. Unless explicitly instructed otherwise, you are honor bound to neither give nor receive assistance on any graded activity.
School of Engineering Pre-Engineering Training (PET) Requirement

The UVM College of Engineering & Mathematical Sciences requires all engineering majors to earn a minimum grade of C- (70%) in this course. Approach this course as if in training for any desired mastery. With steady effort, you are highly likely to achieve success. Please reach out to Professor Pechenick and the G/TAs early and often, whenever you need assistance.

Academic Integrity

UVM is committed to our “learning, creating, and sharing knowledge responsibly”. You are responsible for familiarizing yourself with, and upholding, the UVM Code of Academic Integrity.

While collaboration is permitted and encouraged during in-class exercises, quiz and exam prep, unless explicitly specified, collaboration on quizzes, exams and homework is strictly prohibited.

If you have any questions … ASK!

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Plagiarism Detection Software.

Please note: All submitted programming assignments are subject to originality verification through software designed and used for the Measure of Software Similarity (MOSS).

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All violations will be reported to Center for Student Conduct. Results may range from zero on an assignment, to an "Academic Dishonesty" F in the course, so please do not risk this.

If you are struggling with the material, or with time management, please reach out to Professor Pechenick and the TAs for academic support.

Accommodations and Religious Observances

In keeping with University policy, any student with a documented disability interested in utilizing accommodations should contact Student Accessibility Services (ACCESS) as early as possible. SAS staff work with students to create reasonable and appropriate accommodations. Students are responsible for discussing their accommodation letter with the instructor.

Students have the right to practice the religion of their choice. If you need to miss class to observe a religious holiday, please submit the dates of your absence in writing by the end of the second full week of classes. You will be permitted to make up work within a mutually agreed-upon time.
About Your Instructor

Alison Pechenick has advanced degrees in Environmental Engineering and Computer Science, a background in General Engineering (EE concentration) and Engineering Management, and industrial experience as an engineer with IBM and General Motors. She has conducted research using GIS data and statistical methods to study the impacts of road networks on riparian geomorphology (river health), and has worked overseas (Taiwan, Pakistan, Sweden) and in various regions within the U.S. With early experience “stuffing” and testing circuit boards in the family business (design and manufacture of industrial process controls), Prof. Pechenick has locally been a network engineer, IT support specialist, and technical trainer; loves to cruise and race sailboats; cycles, skis and snowshoes to campus; skates and kayaks on Malletts Bay; has served as faculty advisor to the UVM Sailing Team and UVM Engineers Without Borders.