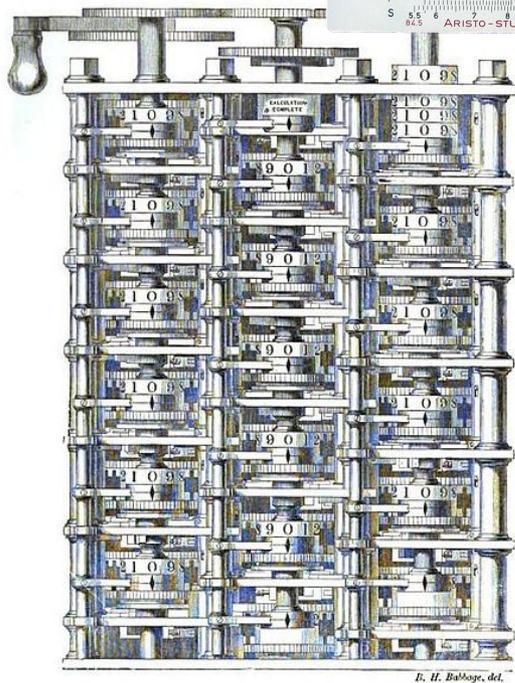
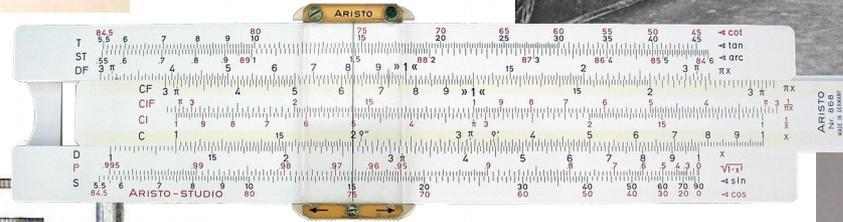
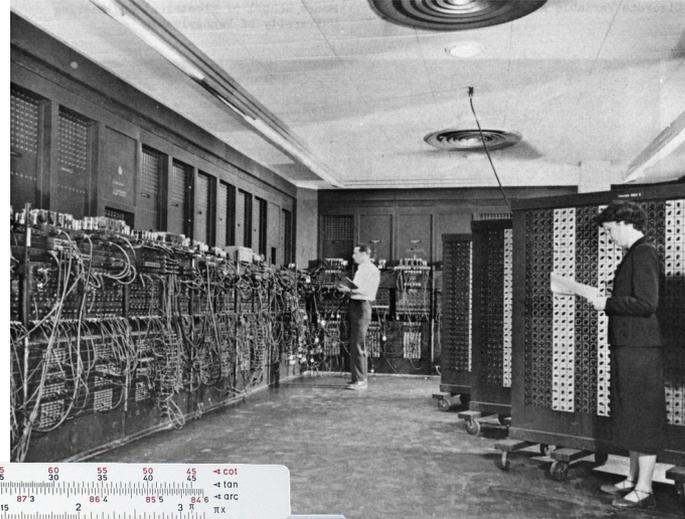
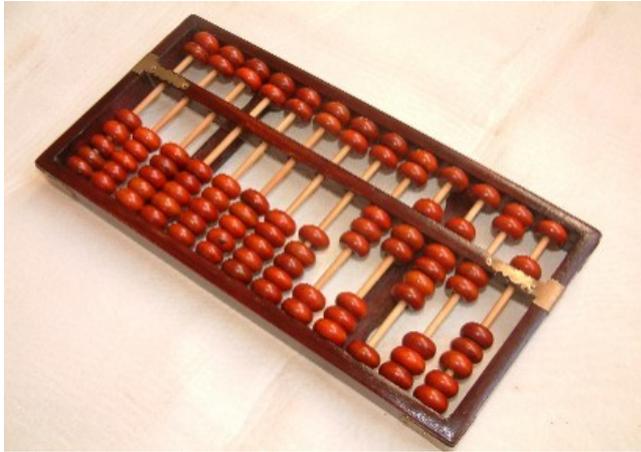
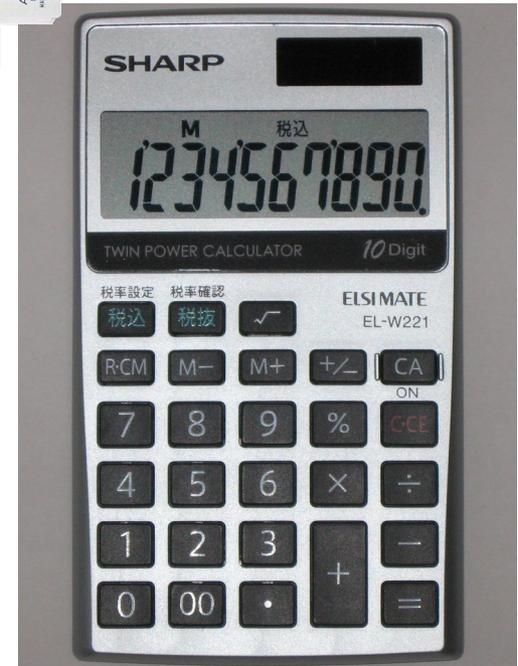


Welcome to CMSC131

What is computing?



E. H. Babbage, del.



What is computing?

$$\begin{array}{r} \boxed{15.8} \\ \sqrt{25000000} \\ \underline{1} \\ (25) 150 \\ \underline{125} \\ (308) 2500 \\ \underline{2464} \\ (316) 3600 \end{array}$$

Image from <https://onlinemathhomework.wordpress.com/2013/02/22/how-to-find-the-square-root/>

What is computer science?

- Computer science is not programming
- Computer science is a science, not a craft
- What problems can be solved (efficiently) through computation? [theory]
- How can problems be framed so they can be solved efficiently? [design]
- How are solutions implemented on specific hardware/software? [programming]

What is programming?



versus



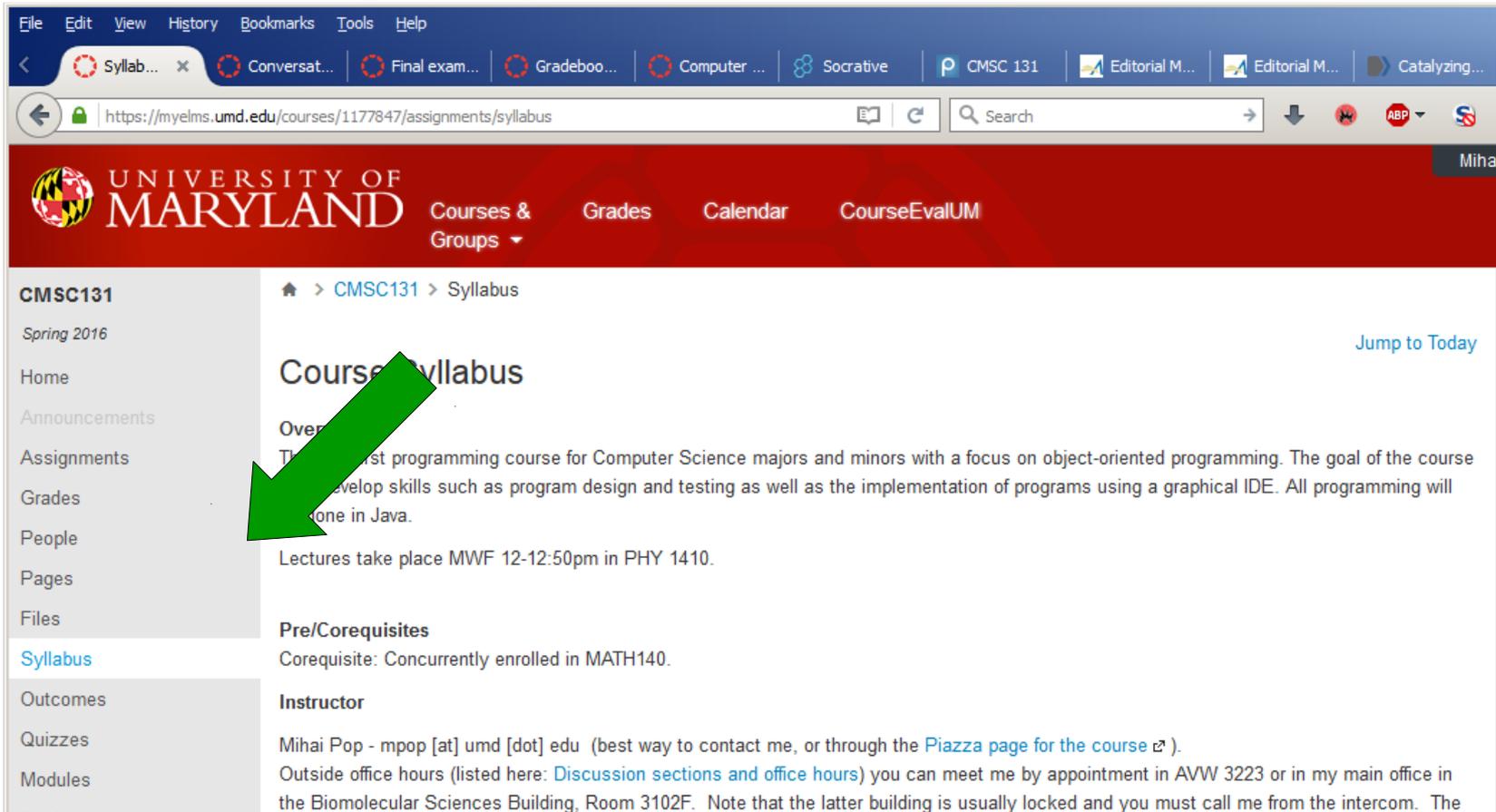
CMSC131 goals/outcomes

By the end of the class you will be able to:

- Recall definitions of key terminology related to programming and computing
- Demonstrate the ability to write declarative statements and use operators, conditional statements, and loops to solve small, specific tasks
- Trace given sections of code to predict the output and to illustrate what happens in the stack, heap, and metaspace of computer memory
- Demonstrate the ability to go from a problem expressed in a natural language to writing working and well-designed code that solves that problem and can be used by other programmers as part of a larger system
- Describe how a computer, code, and data are organized and how that impacts the execution of programs

Class resources

- ELMS - <http://myelms.umd.edu/courses/1177847>



The screenshot shows a web browser window displaying the course syllabus for CMSC131 at the University of Maryland. The browser's address bar shows the URL <https://myelms.umd.edu/courses/1177847/assignments/syllabus>. The page header includes the University of Maryland logo and navigation links for Courses & Groups, Grades, Calendar, and CourseEvalUM. The main content area is titled "Course Syllabus" and includes an overview of the course, pre/corequisites, and instructor information. A green arrow points to the "Course Syllabus" heading.

CMSC131
Spring 2016

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Course Syllabus

Overview
This is the first programming course for Computer Science majors and minors with a focus on object-oriented programming. The goal of the course is to develop skills such as program design and testing as well as the implementation of programs using a graphical IDE. All programming will be done in Java.

Lectures take place MWF 12-12:50pm in PHY 1410.

Pre/Corequisites
Corequisite: Concurrently enrolled in MATH140.

Instructor
Mihai Pop - [mpop \[at\] umd \[dot\] edu](mailto:mpop@umd.edu) (best way to contact me, or through the [Piazza page for the course](#)).
Outside office hours (listed here: [Discussion sections and office hours](#)) you can meet me by appointment in AVW 3223 or in my main office in the Biomolecular Sciences Building, Room 3102F. Note that the latter building is usually locked and you must call me from the intercom. The

Piazza

- Pooja's story: <https://piazza.com/about/story>

Assignments/grading

- ELMS/Socrative exercises 5%
 - Lab quizzes/Coding exercises 8%
 - Projects 25%
 - Midterms 30%
 - Final 32%
 - – 100%
-
- **IMPORTANT:** exams make up 62% of the grade
 - Everything else are fairly low-stakes exercises to prepare you to do well on exams!!!

Final thoughts

- Partner/group work encouraged (within limits)
- Class pace – very fast
- Welcome to CMSC 131!