

Introducing CMSC132

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Overarching Objectives for this class

First and foremost, this course is designed with the following objectives in mind:

- Foster a conceptual understanding of the programming enterprise.
- Develop a facility with intermediate-level Java classes and utilities.
- Encourage a work-ethic that promotes success in academic and real-world settings.

Ways of understanding

- We desire a conceptual understanding of the programming enterprise: knowing “what” and “why.”
- We work with definitions and principles—which are common to all programming languages, but will be expressed within Java.
- Our emphasis is less on learning how to “shop” features from a pre-defined library and more on developing a robust understanding by implementing many of the structures ourselves.

Developing a good work-ethic

- Do not focus on the “grade” to the exclusion of learning. We don’t know your grade until the end of the course. Instead,
- Think, reflect, document and then implement . . . repeat
- Take responsibility for your own learning.
- Start every lab/project early.
- Use recitations and office hours to explore the content.
- The answer you seek is **not** on your device.

Major topics explored within this course

- Data-types (structures), including generics.
- Structural reasoning, including recursion, transparent and opaque data-structures, common design idioms.
- Informal consideration of computational complexity.
- Interfaces, abstract classes: code reuse through encapsulation and inheritance.
- Networks, files, regular expressions, exception handling and some systems-level protocols.
- Common concurrent programming constructs.

Useful details

Carefully read and re-read the Syllabus for this class. Below are a few highlights:

- Two midterms, given during normal lecture hours; one final—time/date on Testudo.
- Grades are available on the Department's Grade Server: `grades.cs.umd.edu`.
- Your grades are determined after final exams are computed; Please don't waste time and effort computing your grade.
- Programming assignments due dates, etc., are available on the Submit Server: `submit.cs.umd.edu`.
- Please carefully study the Syllabus for course details.