

CS 2316 Data Input and Manipulation

Instructor

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Teaching Assistants

TBD

Course Description

This course will provide background and experience in reading, manipulating, and exporting data for engineering, business and scientific applications. Specific topics include file I/O, string processing, web scraping, API accessing, and interfacing with SQL databases. Students will learn to build programs controlled by basic graphical user interfaces. Assignments will be modeled after business, engineering, and scientific problems.

Grading

- Homework: 25%
- Participation: 5%
- Exams: 45%
- Final Exam: 25%

Grade Cutoffs: A: 90, B: 80, C: 70, D: 60

Assignments

Three in-class written exams, a final exam, graded daily work, and approximately 5 to 7 homework assignments. Your last homework assignment will be due the week preceding final exams.

Assignments must be turned in before the date and time indicated as the assignment's due date.

Late homework will incur a penalty of 25%.

Academic Integrity and Collaboration

We expect academic honor and integrity from students. Please study and follow the academic honor code of Georgia Tech: <http://www.honor.gatech.edu/content/2/the-honor-code>. You may collaborate on homework assignments and daily work, but your submissions must be your own. You may not collaborate on exams.

Regrade Policy

To contest any grade you must contact the instructor **within one week of the assignment's original return date**. The original return date is the date the exam was first made available for students to pick up or the grade was posted online. After that point regrade requests will not be accepted.

Prerequisites

At least one of:

- Undergraduate Semester level CS 1301 Minimum Grade of C
- Undergraduate Semester level CS 1315 Minimum Grade of C
- Undergraduate Semester level CS 1371 Minimum Grade of C

Course Materials

Programming Language and IDE

The language used in this class is Python. The software is free and can be downloaded from <https://www.python.org/downloads/>. Python has an interactive development environment (IDE), IDLE, that is pure Python and comes as part of the download. Python is a high-level programming language that supports multiple programming paradigms: object oriented, imperative, procedural, and functional programming styles. We will help you install the software on your computer during the first week of class.

Canvas

All course information and resources can be found in Canvas. This includes: Syllabus, Assignments, Submissions, Announcements, Grades & Feedback, Resources, etc.

The code from each lecture will be posted on Canvas under the Files tab by the end of the following day. Canvas is NOT forgiving about due dates and times. The assignment folder will close and you are not allowed to turn in your work any other way.

Free online books

[Think like a computer scientist](#)

[Think like a computer scientist - Interactive Edition](#)

Other online resources will be made available and will be required reading.