

# Intro to Media Computation (CS1315) Syllabus: Spring 2026

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## Course Information:

**Course prefix:** CIS

**Course number:** 1315

**Semester:** Spring

**Academic year:** 2026

|                         |                              |
|-------------------------|------------------------------|
| <b>Section:</b>         | A, GR                        |
| <b>CRN:</b>             | 21148, 27257                 |
| <b>Instructor Name:</b> | Iretta Kearse (Prof. Kearse) |
| <b>Head TA Name:</b>    | Brittney Ngo                 |

## Lecture Times and Locations:

|                      |                                            |
|----------------------|--------------------------------------------|
| <b>Location:</b>     | <b>Technology Square Research Building</b> |
| <b>Room:</b>         | <b>#132</b>                                |
| <b>Meeting Days:</b> | <b>MWF</b>                                 |
| <b>Meeting Time:</b> | <b>9:30 am – 10:20 am</b>                  |

## Course Materials:

- Online textbook: “How To Think Like a Computer Scientist: Learning with Python 3” - <http://openbookproject.net/thinkcs/python/english3e/>
- Programming language - Python 3 (<https://www.python.org/>)
- Integrated Development Environment - Visual Studio Code (<https://code.visualstudio.com/>)
- Learning Management System - Canvas at Georgia Tech (<https://canvas.gatech.edu/>)

## Course Description:

Introduction to computation (algorithmic thinking, data structures, data transformation and processing, and programming) in a media and communication context. CS 1315 is an introduction to computing concepts for students with no previous background in CS and who are majoring in subjects other than CS or engineering. Students learn computing through the design of programs to manipulate media and multimedia objects such as digitized pictures, sounds, and web pages. Credit not awarded for both CS 4452 and CS 1315.

## Course Learning Outcomes:

- Write programs for mathematically based calculations, image and sound manipulation, and text (e.g. HTML) creation/manipulation.
- Apply basic concepts of computer science (especially data representations, algorithms, encodings, forms of programming) to media related problems.
- Apply a range of useful computing skills.

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## Course Learning Objectives:

- Competency
  - Calculate size requirements for media objects given the size and quantity of elements and knowledge of encoding schemes (e.g., bits in a picture, given a knowledge of RGB encoding and the width and height in pixels; size of a digitized sound given its sampling rate and duration).
  - Demonstrate ability to write simple programs using function invocation, iteration, conditionals, and simple sequential data structures (e.g., lists and text strings).
  - Apply knowledge of media encoding schemes (e.g., digitized pictures, sounds, movies, and web pages) and basic programming syntax and semantics to write simple media creation and manipulation programs.
  - Infer the behavior of short media programs from their text, including the detection of flaws in incorrect programs.
  - Explain basic networking and algorithmic concepts (e.g., protocols, intractability).
- Accomplishment
  - Write several programs that creatively manipulate media or multimedia objects, saving or displaying the results.
- Experience
  - For any student self-described as “not a computer person”: reflect on how computers are entirely controlled by people and depend on explicit instructions.
- Integrated performance
  - Write a 100+-line program that integrates multiple media creatively and demonstrates mastery of programming concepts.

## Core IMPACTS statement:

This is a Core IMPACTS course that is part of the Institution area.

Core IMPACTS refers to the core curriculum, which provides students with essential knowledge in foundational academic areas. This course will help students master course content, and support students' broad academic and career goals.

This course should direct students toward a broad Orienting Question:

- How does my institution help me to navigate the world?

Completion of this course should enable students to meet the following Learning Outcome:

- Students will demonstrate the ability to think critically and solve problems related to academic priorities at their institution.

Course content, activities, and exercises in this course should help students develop the following Career-Ready Competencies:

- Critical Thinking
- Teamwork
- Time Management

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## Attendance Policy:

- Attendance at lectures and recitation workshops is strongly encouraged. Please familiarize yourself with the Georgia Tech Rule & Regulation on Attendance (<https://catalog.gatech.edu/rules/4/>).
- Only students officially registered for the course are allowed to attend lectures and recitation.
- You are fully responsible for all course content and administrative announcements made during class, including updates to the syllabus, assignments, assessments, and course schedule. Missing class may negatively impact your understanding of the material and your ability to participate meaningfully.
- Absences must be documented and approved by the Dean of Students. Students are responsible for contacting the Office of the Dean of Students as soon as possible to report any attendance issue. The Office of the Dean of Students will inform the student of a decision as to whether communication with instructional faculty is appropriate.
- Students who are absent because of participation in a particular religious observance will be permitted to make up the work missed during their absence with no late penalty, provided the student informs the course instructor of the upcoming absence, in writing, within the first two weeks of class, and provided the student makes up the missed material within five (5) working days of the assignment due date.

## Grading Policy:

- Grade Calculation
  - This course uses a fixed grading scale. Final scores are not curved.
  - Final scores are calculated to the nearest tenth (e.g., 89.94 becomes 89.9).
  - Grades are not bumped up to the next letter grade. For example, a final score of 89.9 will be recorded as a letter grade of B, not an A.
- Grade Assignment Weighting
  - Final scores are calculated using the following assignment category percentages:

| Assignment Category | Category Weight |
|---------------------|-----------------|
| Participation       | 5%              |
| Homework            | 30%             |
| Quizzes             | 40%             |
| Final Exam          | 25%             |

- Grade Letter Scale
  - Final grade letters are assigned using the following scale:

| Letter Grade | Final Score              |
|--------------|--------------------------|
| A            | 90.0 and above           |
| B            | 80.0 – 89.9              |
| C            | 70.0 – 79.9              |
| D            | 60.0 – 69.9              |
| F            | 00.0 – 59.9              |
| Pass/Fail    | Minimum of 70.0 for Pass |

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## Assignment & Assessment Statements:

- All course information and resources can be found in the Canvas course (<http://canvas.gatech.edu/>) which will include all resource links and materials.
- No assignments or assessments will be dropped.
- If you attend an assessment, it is assumed that you are well enough for your performance to accurately reflect your knowledge, and you will NOT be allowed to retake the assessment.
- There will be a Reality Check assigned every lecture. A Reality Check will be due during the lecture or by end of the day.
- There will be a Homework assigned every week. Homework is usually assigned on Thursdays, and due the Thursday of next week.
- There will be a Quiz administered in class every other Friday.
- The Final exam is cumulative and mandatory. The Final exam will be administered according to the Georgia Tech [Final Exam Matrix](#).

## Excused Assignment & Assessment Policy

- Any missed assignments or assessments without official documentation from the Dean of Students ([Class Absence Verification Form](#)) or an Institute Approved Absence, will receive a score of 0.
  - Reality Check, the assignment will be marked in Canvas as Excused.
  - Homework, the assignment must be submitted within five (5) working days of the official documentation absence from course due date.
  - Quiz, the assessment must be taken and submitted within five (5) working days of the official documentation absence from course due date.
- The final decision regarding any exception is made solely at the discretion of your professor. Events such as vacations, parents setting up travel plans, weddings, graduations, work conflicts, alarm malfunction, forgetting to submit, forgetting the date and time of an assessment or assignment, or not being aware of the assessment assignment are NOT valid excuses.

## Academic Integrity Statement

At Georgia Tech, academic integrity is a core value. In this course, we take the Academic Honor Code seriously, and we expect all students to uphold it. Every assignment must be written and completed entirely by you. Your submission must be your own original work. Reasonable collaboration should not result in similarity.

### What You Must NOT Do

- Do not share your assignments with other students, in any format (electronic, paper, etc.).
- Do not copy or allow others to copy your work. If your work is found in another student's submission, both parties may be charged with academic misconduct.
- Do not exchange code or write code for others verbally, on paper, or electronically.

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- Do not post course materials, including assignments, homework, quizzes, exams, and projects, on the Internet (including public GitHub). If any student copies the work that you have posted online, both parties will be charged with academic misconduct.

## **What You CAN Do**

- Collaboration is encouraged when done appropriately with:
  - Current CS1315 students that are officially enrolled in the current semester.
  - Current CS1315 course TAs and the instructor.
- Discuss problems at a high level, explain concepts, and toss around ideas. You should not exchange or write assignments for others. You should not look at another student's programming work or code.
- Talk through problems.
- Help debug code without providing explicit solutions.

## **Consequences**

Submissions that are not fundamentally unique will receive a score of zero and be referred to the Office of Student Integrity. If you're ever unsure about what's allowed, please ask your CS1315 TA or instructor. We are here to help you succeed with integrity. Additionally, TAs will be monitoring "collaboration and homework help" sites for violations related to course assignments.

We strongly urge you to be familiar with these Georgia Tech sites:

- The Honor Code — <https://osi.gatech.edu/students/honor-code>
- Office of Student Integrity — <http://www.osi.gatech.edu/index.php/>
- Student-Faculty Expectations Agreement - <https://catalog.gatech.edu/rules/21/>