

CS106 Introduction to Computer Science

Instructor: Michael Eckmann, Ph.D.

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Office Hours:

Mondays 1 p.m. - 2 p.m.

Tuesdays 1 p.m. - 2 p.m.

or by appointment.

Course Overview

This course is an introduction to computer science. The course will cover programming using the Python programming language as well as problem solving using computer programs.

Student Learning Goals and Objectives

1. To understand, to some degree, what computer science is.
2. To understand, be able to read and be able to write programs using the Python programming language to achieve specific tasks.
3. To gain an appreciation of computer science.
4. To learn and practice good techniques for writing, testing and debugging code.

Goals will be assessed mostly by labs, exams and programming assignments. General assessment of the whole class also takes during lab sessions and lectures which engage the students in analysis and discussion of the topics.

Textbook

Introduction to Python Programming by David Read and Dr. Christine Reilly (free pdf)

Grading policy

15% Labs / Attendance / participation

20% Programming and Homework assignments

17% Exam 1

20% Exam 2

28% Final Exam

List of Topics covered

Introduction to course & introduction to Python programs
problem solving techniques
printing, variables, values, types, Input
operators, if/elif/else
function terminology
nested ifs, logical operators, reserved words and variable names,
random number generation
while loops
str methods
lists
for loops
range
programmer-defined functions, arguments, parameters
searching and sorting
recursion
Math module
dictionaries
optional parameters / default values
try/except/else/finally
list comprehensions
file I/O
splitting strings
Classes / Object oriented programming
Is-a relationships / Inheritance
other topics (if time permits)

Summer Session 2 Calendar

June 30 Summer Session 2 Classes Begin
July 01 Course Add Deadline
July 02 Academic/Financial Course Drop Deadline, Grading
Option Change Deadline (choose Letter Grade or S/U)
July 03 Independence Day Holiday observed - no classes
July 24 Withdrawal without Academic Penalty Deadline
July 31 Classes End

Class meetings

All meetings are a mix of Lecture and Lab

M, Tu, W, Th, & F

09:00 a.m. - 12:10 p.m. CIS 237

June 30 – July 31 all weekdays except July 03.

Final Exam on Friday June 30 in class.

Assignments

The course will have approximately 4 programming assignments. The submission procedure will be given when it comes time for you to submit programs.

One policy that you must follow is: Give proper attribution to any code you that you yourself did not write. That is, if you use code (even a small amount) taken from another source, you **must** cite the source in a comment in your program. If you do not, it may be considered plagiarism. The program source code will be read. Source code documentation and organization should make your program easy to read, and convey your understanding of the techniques your program demonstrates. In addition to programming assignments, there may be conceptual homework assignments. Late assignments will incur 10 percent off per calendar day. Please type all assignments.

Recording Policy

To ensure the free and open discussion of ideas, students may **NOT** record or stream classroom lectures, discussions, or activities unless permission is granted by the instructor or, with the instructor's involvement, through the academic accommodation process. The course "recording" policy extends to audio and video recording and streaming, photography, and transcription of audio through generative AI or other tools.

Students with approved accommodations that permit the recording of class meetings should submit an accommodation letter from Accessibility Services before recording commences. For all students, permission to record is conditioned on the requirement that recordings will be used exclusively for educational purposes, such as for assistance with notetaking. Consistent with Skidmore's commitment to academic freedom, freedom of speech, and respectful dialogue, recordings may not be used in any way that denigrates and/or decontextualizes the instructor or any student whose remarks are recorded. Any information contained in the recording may not be posted, published, or quoted, and all recordings must be erased at the end of the semester. Violation of these expectations will be reported to Student Conduct and may result in a grade penalty at the instructor's discretion.

Conscientious Religious Observance Policy

Skidmore College acknowledges that our community is one of many faiths with a diverse range of practices and observances important to each tradition. In order to fulfill our mission to educate a diverse population of talented students and our commitment to inclusion regardless of religious and spiritual tradition, we seek to practice an equitable and consistent approach in providing religious accommodations. If religious observance requires absence from class or you anticipate a conflict with assignments or due dates, please notify your instructor prior to the absence or conflict so that accommodations can be arranged. Although not required, please provide notification about a pending religious holiday at the start of the semester or at least one week before the holiday. As an option, you may use the form available at www.skidmore.edu/religious-life/calendar.php . Accommodations for your absence should not reduce the overall expectations of a course nor unduly burden you for requesting accommodation. Students shall not suffer academic, athletic, or employment penalties because of the conscientious observance of any religious day or days. Faculty must permit students to take a makeup examination without any penalty if they have to miss an examination due to religious observances. Similarly, faculty must permit students to submit missed assignments by an agreed upon due date, without penalty. If a student, supervisor, coach, or faculty member feels the policy is being violated, they should contact the Dean of Faculty Office at 518-580-5705 (Palamountain 416), the Dean of Students Office at 518-580-5760 (Case Center 313), or Human Resources at 518-580-5800 (Barrett Center first floor). The full policy can be found at <https://www.skidmore.edu/religious-life/calendar.php>.

Attendance

Attendance is required, but my primary concern is your health and well-being. I ask that you miss class only when you are feeling poorly. If you do need to miss class, I will work with you to the extent possible. See below to understand how to make up for an absence. If you are ill or will miss class for some other reason, you should notify me as soon as possible so a plan can be worked out to make it up.

I do take attendance, often using a sign-in sheet. It is your responsibility to ensure you initial the sheet if you are present. Missing class will impact your grade most directly based on attendance. Missing class will also have an indirect impact on your grade in terms of your understanding and mastery of the concepts covered.

Academic Integrity and the Honor Code

In this course, academic integrity means that all submitted work reflects your own effort. Regarding generative AI: the unacknowledged use of AI in submitted work will be considered an act of plagiarism. Although plagiarism is defined by Skidmore as “presenting as one’s own, the work of another person” – and students might argue that chatbots and writing tools powered by generative AI are not persons – plagiarism also includes “failure to indicate accurately the extent and precise nature of one’s reliance on other sources.”

Further, you are strictly forbidden to upload / post / or otherwise share (for example, to any AI, online newsgroups, text or email to actual people) Programming Assignments, exam questions, or other homework assignments that assigned in this course.

Skidmore’s Honor Code follows:

“I hereby accept membership in the Skidmore College community and, with full realization of the responsibilities inherent in membership, do agree to adhere to honesty and integrity in all relationships, to be considerate of the rights of others, and to abide by the college regulations.”

Students with Disabilities

Skidmore College is committed to supporting the learning needs of all students in our diverse community. If you have a documented barrier to learning or think you may have a disability, please consult with Meg Hegener, Director of Accessibility Services (mhegener@skidmore.edu). Accommodations are approved by the coordinator following a review of students’ documentation. If you are approved for academic accommodations, please provide your letter of accommodations to me early in the semester or as soon as you are approved so that we can proactively coordinate implementation. Academic accommodations based on disability cannot be granted by individual faculty. For further information, please call (518) 580-8150 to contact The Learning Commons in Starbuck Center.

Diversity and Inclusion

Skidmore College is committed to fostering a diverse and inclusive community in which members develop their abilities to live in a complex and interconnected world.

Consistent with our educational mission, we recognize ourselves as a community that respects individual identities based on varying sociocultural characteristics such as race, ethnicity, gender identity and expression, sexual orientation, national origin, first language, religious and spiritual tradition, age, ability, socioeconomic status and learning style. We strive to create a socially just world that honors the dignity and worth of each individual, and we seek to build a community centered on mutual respect and openness to ideas—one in which individuals value cultural and intellectual diversity and share the responsibility for creating a welcoming, safe and inclusive environment. We recognize that our community is most inclusive when all members participate to their full capacity in the spirited and sometimes challenging conversations that are at the center of the college's educational mission.

Title IX and Sexual and Gender-based Misconduct

Skidmore College considers sexual and gender-based misconduct to be one of the most serious violations of the values and standards of the College. Unwelcome sexual contact of any form is a violation of students' personal integrity and their right to a safe environment and therefore violates Skidmore's values. Sexual and gender-based misconduct is also prohibited by federal and state regulations. Skidmore College faculty are committed to supporting our students and upholding gender equity laws as outlined by Title IX. If a student chooses to confide in a member of Skidmore's faculty or staff regarding an issue of sexual or gender-based misconduct, that faculty or staff member is obligated to tell Skidmore's Title IX Coordinator or Title IX Deputy Coordinator. The Title IX Coordinator or Deputy Coordinator will assist the student in connecting with all possible resources for support and options for reporting both on and off campus.

Identities and details will be shared only with those who need to know to support the student and to address the situation through the college's processes. If the student wishes to confide in a confidential resource, the Counseling Center Staff, Health Services, and Victim Advocates (anonymous) are all options available. More information can be found at the Sexual and Gender-Based Misconduct [website](#) or by contacting the Title IX Coordinator, Joel Aure (jaure@skidmore.edu), 580-5708.