**COMP112 Introduction to Computer Science**

**Fall 2024 Syllabus**

**Instructor**

Prof. Kelly M. Thayer

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Office hours:

* Tuesdays 1:00-3:00
* By appointment

Zoom Contact Information:

COMP112 Meeting ID: 586 776 0570

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| |  |  |  |  | | --- | --- | --- | --- | | Section | Thurs Lab Time | HW Grader | Lab TA | | COMP112-01 | 8:50-10:10 | Samvit | Samvit | | COMP112-02 | 10:20-11:40 | Conrad | Conrad | | COMP112-03 | 1:20-2:40 | Gabe | Eli | |  |  |  |  | |  | Eveing TA sessions 7-9PM location TBA | | | |  | Thursday | Sunday | Monday | | TA#1 | Eli | Emmett | Romani | | TA#2 | Tara Pandey | Sean | Gabe | |  |  |  |  | | **Alphabetical List of TAs** | |  |  | | Fellus, Eli |  |  |  | | Fischl, Conrad | |  |  | | Mirsky, Gabe | |  |  | | Osbourne, Romani | |  |  | | Pandey, Tara | |  |  | | Schillinger, Emmett | |  |  | | Singhal, Samvit | |  |  | | Stetson, Sean | |  |  | |  |  |
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**GENERAL INFORMATION**

**Text:** Think Python: How to Think Like a Computer Scientist. Version 2.0.17 Allen Downey. Green Tea Press: Needham, MA, 2012. <http://www.greenteapress.com/thinkpython/thinkpython.pdf> The online version is freely available. Alternately, you may purchase a hard copy. It is available at R. J. Julia Bookstore, Amazon.com, etc.

**Course Description:** Welcome Introduction to Computer Science. The content of this computer science course focuses on learning how to think as a computer scientist through the use of the Python programming language. We will operate on the assumption that students have no prior experience with programming. The goals of the course will be to develop algorithmic thinking, problem solving, and quantitative skills within the context of learning a modern programming language applicable to studies not only in Computer Science but also to various areas of academic and industrial interest. The course will cover essential mechanics of programming, many of which are common to all programming languages, as well as selected advanced topics as indicated on the course calendar. With the expectation that students with a broad background with various motivating factors leading them to enroll in the course, students will be invited to apply the skills learned in the course to completing the culminating final project related to their specific interests.

**Moodle Web Site:** A course web site has been established through Moodle for each section, and it will continue to be developed throughout the semester. This serves as a central location where links to assignments, handouts, and announcements will be posted. You will turn in your assignments via Moodle. The login to Moodle may be found in the WesPortal via the quick links or under Academics > Moodle. Proceed to your section’s Moodle page.

**Google Drive Handouts:**  The Google Drive hosts the assignments and handouts for the course. Here you will find the weekly homework assignments, lab assignments and solutions, practice exam materials, slides, resources for final projects, and any other handouts. Please note you need to be logged into your Wesleyan Google account to access this resource. <https://drive.google.com/drive/folders/1PU-QGZiq6_vy803DE-f2dC-1gTbIypsq?usp=share_link>

**YouTube Lecture Recordings:** The growing ThayerLab YouTube channel includes a playlist of past COMP112 lecture recordings, as well as course extras. If you are unable to attend a lecture or would like to review a topic, this is a resource at your disposal. We hope you will like and subscribe to get notifications of our latest videos, and we welcome your suggestions for topics for upcoming episodes. Topical playlists can be found on the ThayerLab Web page under YouTube Tutorial Videos <https://kellymthayer.wescreates.wesleyan.edu/> .

**GRADING**

Your course grade is comprised of several components (described below) as follows:

25% Exam I

25% Exam II

10% Laboratory Sessions and Participation

15% Homework Problem Sets

25% Final Project

**Examinations:** Two exams covering several chapters will be administered: the first will occur approximately half way through the material, and the second is near the end of the semester. They will be based on content from the lectures, problem sets, readings, and lab. You can expect both a computer based and a paper based component. Please refer to the course calendar for the exam dates and practice exams on the Google Drive for sample questions and format. You should anticipate that any adjustments in the schedule will not move exam dates; please plan to take exam as scheduled. Make-up examinations will not be administered except in documentable extreme cases such as a medical emergency. If you have an academic accommodation plan involving the testing environment in your letter from Disability Resources, please contact your instructor at least one week prior to the exam to make suitable arrangements.

**Laboratory Sessions:** We will practice the concepts learned in the lectures during the laboratory component of the course. The purpose of the computer labs is to provide you with a hands-on approach to learning which supplements the lecture content. Additionally, this will provide you with valuable computational skills useful for your future career, as well as serve as a basis on which you can further your computational studies. The computer exercises will provide you with the skill set needed to complete the course project (see below). These are meant to be a learning exercise, and frequently will be carried out in pairs. The weekly lab exercises are found on the Google drive and generally match that week’s lecture, plus the Turtles and Debugging labs. There are no formal lab reports required, but you will submit the responses to the exercises on Moodle. Thus, it is advisable to look over the problem sets and labs prior to arriving at lab to get the maximum benefit of that time. It is an excellent opportunity to get immediate feedback on any questions you have.

Attendance at all laboratory sessions is expected in order to receive credit for the lab. Students who are prepared with their attention on task with a reasonable attempt to complete the work will be awarded full credit for the week’s lab; otherwise partial credit will be awarded. Anyone missing lab due to an incidental sports/academic conflict should confer prior to the event and arrange to complete the lab ahead of time; Credit will be awarded for the lab after the check-in at office hours or by appointment.

**The Notecard:** You are expected to read the assigned chapters and attend lectures. Your preparation work each week is to have a 3x5 notecard (or equivalent, be it paper, notebook, electronic, on your phone, etc.) with content such as main ideas, syntax, and vocabulary. Preferably this should be completed prior to the lecture for maximum pedagogical benefit. If you do not have your notecard, your lab grade may reflect this on grounds of having not arrived prepared and therefore unable to fully participate.

**Homework Problem Sets:** Working problems is essential to understanding the content of this course. Questions covering the topic of the week’s lecture will be assigned on Tuesdays throughout the semester. They are generally due at the beginning of class of the following Tuesday; please refer to the course calendar for the scheduling details. You will complete the problems at home. You are welcome to discuss the problems with your classmates, the Teaching Assistants, instructors, online resources, etc. but the responses you turn in must reflect content covered in this course and your understanding of the material. Assignments should be submitted on Moodle. Please respond to homework and lab questions using Python methods presented in the lecture and lab. Many Python methods developed as secondary code exists and may be incorporated in the project, but the purpose of the class is to learn programming with the basic building blocks.

Late homework assignments will not be accepted except in documentable cases such as a medical emergency or illness. If you have a planned absence for a sports or other academic commitment, it is your responsibility to turn in your homework on time. Keeping with this schedule will allow us to return timely and detailed feedback. The problem sets are meant to help you keep pace and to provide you with regular feedback on your progress in the course; this will aid you in focusing your studies and identifying when you may need to seek further assistance.

**Final Project:** In lieu of a comprehensive final examination, you will submit a final project which will be due during the final exam week on a date in accord with the generic final exam calendar for the current semester which can be found on the registrar’s page <https://www.wesleyan.edu/registrar/calendars/final_exam_schedule.html>. Please refer to the course calendar for course dates. You will propose a topic of interest or select a suggested topic to write a proposal in which you will write three goals for the project that will demonstrate your mastery of Python. The instructor will provide detailed feedback and work with you as you develop your program. Preliminary results will be due mid-semester (refer to course calendar), which will entail attempting to complete two of the three goals. The instructor will again provide feedback and be available for consult at the office hours. Students will make a brief presentation on the preliminary results during the final lab session. The completed project is due during the scheduled final exam session. Please note that late final projects will not be accepted. *In order to pass the class, all students regardless of their average in the class and regardless of graded or CR/U mode must turn in a project to pass the class.*

**COURSE POLICIES**

**Late and/or Missed Assignments:** Late problem sets will not be accepted and missed laboratory sessions will not receive credit. If you are requesting extra time due to illness or emergency, contact the instructor at your earliest convenience to arrange an accommodation.

**Exams:** Taking your examination on time should be a priority. Make up exams are not administered except under documentable and dire circumstances.

**Final Project Deadline:** The final project must be turned in on the due date to ensure that it will be able to be graded prior to the due date of final grades to the registrar’s office. Please plan to work on it throughout the semester. If you have not turned in your completed project by the due date, by default I will grade you on the basis of the most recent update you have turned in. Late projects will not be accepted.

**Electronic Device Usage:** Cell phones and laptops can aid the learning process, but also can be a distraction for you and your classmates. Therefore, during lectures and labs, these devices should only be in use for on-task activities.

**Artificial Intelligence:** All assignments should be fully prepared by the student. Developing strong competencies such as using HPC tools, require the student themselves to complete the work they turn in. Therefore, the use of generative AI tools including but not limited to ChatGPT to complete any aspect of assignments for this course are not permitted and will be treated as plagiarism. If you have questions about what constitutes a violation of this statement, please contact me.

**Attendance, Illness, and Emergency:**  If you are not feeling well, please inform the instructor via email and work from home. If you require extra time to complete your work, accommodations for incidental illness can be made. An absence from an exam or an extended time may require written documentation such as a doctor’s note or a letter from your class dean. Attendance in lecture and/or lab may be monitored; excessive absences may reflect in your participation grade.

* Credit for labs is not granted if you fail to attend and do not contact the instructor to make arrangements.
* Students who fail to attend an examination without prior arrangement are subject to receiving a 0 on that exam; please make every effort to take exams as scheduled.

**Health and Safety Protocols:** The health and well-being of our community is a priority. Please stay home if you are not well (with or without covid), and consider the current recommendation to wear a mask indoors. Your health is the priority, so you are urged to seek appropriate medical assistance. As we face an evolving situation, we need to be mindful that this could change over the course of the semester, and we will adjust in accord with public health and Wesleyan issued guidelines and policies.

**Extended absence or emergency:** In the case of an extended illness or emergency, you can contact your class dean, who can forward a notice of approved absence to all of your instructors at once, alleviating you of the responsibility to explain the situation to each instructor individually. Please refer to the student affairs web site for information on the class deans. <https://www.wesleyan.edu/studentaffairs/about/classdeans.html>

**Diversity and Inclusion:** I am committed to welcoming every student into my class and maintaining an environment that embraces our differences as strengths. In response to recent political activities and campus forums, I acknowledge that we may unintentionally or unknowingly exclude students. To begin taking steps towards a more diverse and inclusive classroom, I invite you to engage in constructive dialogue if you have any concerns you wish to call to my attention. I am a cosigner of Wesleyan’s “NSM Faculty Pledge to Promote and Support Anti-Racist Practices Across the Division” and as such have made a public declaration of my values. Some of the ways this will be borne out in our class include:

* Opportunities for all students to speak and be heard. No question is too simple. We respect the voices of all participants.
* Highlighting the voices of the underrepresented: we will feature biographies of diverse contributors to computer science and technology throughout the course.
* Selecting course assistants from a diverse pool representative of the students who have taken the course
* Explaining the concepts from the fundamentals up, to increase accessibility of the material regardless of prior training
* Offering office hours on several days and at a variety of times and expand the opportunities to get help, ask questions, and interacting one on one with the professor.
* Implement a variety of teaching strategies. The course material is presented visually in the readings for the course, orally in the lectures, and tactilely through the laboratory exercises and final project.
* Evaluate students through diverse modalities. Not only are students evaluated by written exams, but also on the basis of effort in labs, and ability to integrate knowledge in real world applications in the final project. This affords students to shine at what they do best in a variety of ways.
* Options on exams – in order for students to capitalize on their strengths, exams often feature several questions of which students may select the ones about which they feel most confident.
* Removing economic barriers – a freely available online textbook was chosen so that there are no added costs for taking the course. All course materials are free.
* Contingency plans – a number of contingency plans are in place to ensure the course remains accessible to all students regardless of the unique challenges we face during the pandemic.

**Loaner Laptop program:** To ensure that our course is accessible to everyone regardless of economic status, the University has a limited number of laptops available to check out and loan on a semester basis. Please refer to the following web site to learn more and to apply. <https://wesleyanedu.service-now.com/sp?id=offering&sys_id=094409751bb128d01807da49cc4bcb9d>

**Religious Observance:** I support Wesleyan’s policy with regard to absence due to religious holidays. Religious observances require that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required assignments/attendance.

If you have a conflict due to observance of a religious holiday, please alert the instructor in advance so that a plan for makeup can be arranged. Questions regarding religious holidays may be directed to the University chaplains <https://www.wesleyan.edu/orsl/meetchaplains.html> and/or to the Class Deans <https://www.wesleyan.edu/studentaffairs/about/classdeans.html>.

**Academic Honesty and Honor Code:** All students of Wesleyan University are responsible for knowing and adhering to [the Honor Code](https://www.wesleyan.edu/studentaffairs/studenthandbook/StudentHandbook.pdf) of this institution. Violations of this policy may include: cheating, plagiarism, aid of academic dishonesty, fabrication, lying, bribery, and threatening behavior. Copying all or part of the work of others and claiming it as yours or allowing someone else to copy your work and claim it as theirs is a violation of the Honor Code. All incidents of academic misconduct shall be reported to the Honor Code Council – Office of Student Affairs. Students who are found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member and non-academic sanctions (including but not limited to university probation, suspension, or expulsion). Please refer to the Office of Student Affairs for additional information. <https://www.wesleyan.edu/studentaffairs/>

**Academic Accommodations:** I am committed to supporting the Americans with Disabilities Act of 1990 and carrying out the mission of Disabilities Resources to create an accessible and inclusive learning environment where disability is recognized as an aspect of diversity. Wesleyan University is committed to ensuring that all qualified students with disabilities are afforded an equal opportunity to participate in, and benefit from, its programs and services. Students with disabilities are entitled to request reasonable accommodations and/or modifications in their classes at the beginning of each semester. To receive accommodations, a student must have a disability as defined by the ADA.

If you have a disability, or think that you might have a disability, please contact [Accessibility Services](https://www.wesleyan.edu/studentaffairs/disabilities/contactus.html) in order to arrange an appointment to discuss your needs and the process for requesting accommodations. Accessibility Services is located in North College, rooms 021/022, or can be reached by email (accessibility@wesleyan.edu) or phone (860-685-5581).

Since accommodations may require early planning and generally are not provided retroactively, please contact Accessibility Services as soon as possible. If you have an accommodation letter, please present this to the instructor at the beginning of the semester. You are encouraged to visit office hours or to make an appointment to discuss your accommodation letter. If your accommodation involves extra time or a modified testing environment for the exam, please be sure to confer with the instructor at least one week in advance of each exam to make suitable arrangements.

**Student Academic Resources**

Student Academic Resources (SAR) oversees academic support for all students at Wesleyan. SAR professional staff and Academic Peer Advisors meet with students one-on-one or during group workshops to provide academic skill-building to give them tools, strategies, and the motivation to succeed in their academic pursuits at Wesleyan, while also fostering meaningful connections with other students. SAR also coordinates a network of Peer Tutors who provide supplemental course content support. Accessibility Services works towards the goal of creating an accessible and inclusive learning environment where disability is recognized as an aspect of diversity. Students who believe that they would benefit from academic support, but are not sure where to turn, are encouraged to reach out to [sar@wesleyan.edu](mailto:sar@wesleyan.edu) any time.

Students can schedule a one-on-one meeting by contacting a SAR professional staff or one of the Academic Peer Advisors anytime. Students can meet with SAR for just one time or set up recurring meetings to check in throughout the semester. Students can choose to focus on skills and resources such as:

• Course selection & managing coursework  
• Time management & accountability  
• Academic skills & study strategies  
• Tools for organization and productivity

Students can also sign up for a group workshop, typically covering specific academic skills and strategies such as how to be successful in STEM courses, how to take notes effectively, or how to manage time and organize information in a research project.

# **Respectful Classroom Environment:** Students and faculty both have responsibility for maintaining an appropriate learning environment. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, color, culture, religion, creed, politics, veteran status, sexual orientation, gender, gender identity and gender expression, age, ability, and nationality. For more information, see the policies on [the student code](https://www.wesleyan.edu/studentaffairs/conduct/index.html) found in the Student Handbook linked above.

# Class rosters are provided to the instructor with the student's legal name. We are happy to address you by your preferred name and/or use preferred pronouns. Please advise your instructors of this preference early in the semester so that we may make appropriate notes regarding your preference. You may choose to indicate this information in the Survey handed out in the first weeks of classes.

# **Discrimination and Harassment.** Wesleyan University is committed to maintaining a positive learning, working, and living environment. Wesleyan will not tolerate acts of discrimination or harassment based upon Protected Classes or related retaliation against or by any employee or student. For purposes of this Wesleyan policy, "Protected Classes" refers to race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation or political philosophy. Individuals who believe they have experienced discrimination should contact [the Office for Equity and Inclusion](https://www.wesleyan.edu/inclusion/) at 860-685-4771. The [responsibility of the University Members](https://www.wesleyan.edu/studentaffairs/studenthandbook/StudentHandbook.pdf) section of the Handbook contains additional information.

# ***I am looking forward to walking with you on this journey to learn how to program in Python! Let’s have a great semester!***