CS 153: Syllabus -- Fall 2025

Dr. Andy Ramlatchan

Course Syllabus

CS 153 Introduction to Programming with Python: 4 Credits.

Catalog Description: Introduction to computer-based problem solving and programming in Python. Topics include problem solving methodologies, program design, algorithm development, and testing. Python language concepts include variables, data types and expressions, assignment, control-flow statements, functions, lists, and classes. Laboratory work required. Pre- or corequisite: MATH 162

Goals and Objectives

By the end of CS153, students will be able to:

1. Use a computer to input, compile, run, and debug a Python program.
2. Design documented programs using the basic elements of Python including variables, data types, operators, strings, and expressions.
3. Implement control structures such as conditional statements, loops, and nested control structures to automate decision-making and repetitive tasks.
4. Construct and use functions with and without return values, applying top-down design and modular programming principles to write efficient Python code.
5. Apply loops and Pythonic techniques to efficiently process structured data, utilizing fundamental data structures including tuples, lists, and dictionaries.
6. Apply object-oriented programming principles using Python classes and objects.
7. Apply various problem-solving techniques to develop algorithms.
8. Analyze and evaluate the performance of algorithms.
9. Read from and write to files for persistent data storage and processing.
10. Apply basic exception handling techniques to write more robust Python programs.

How the Course Works

Methods of Delivery/Learning Activities

This course employs several methods of delivery and learning activities including lecture videos, coding examples, electronic access of supplementary information on Canvas, programming labs and assignments, practice quizzes, and examinations. The Course Textbook, zyBooks, is a fully digital delivery of the course content, engaging students at the point of learning, which leads to a deeper understanding and continuous practice of the course material.

Students are encouraged to ask for TAs' help in labs and recitations. Students are also encouraged to reach out to the course instructor and ask any question by email.

Course Readings

Required Textbook

Introduction to Programming in Python | zyBooks Links to an external site.

You can find instructions on how to get your book here: Review the Course Objectives and Materials

Note that:

- not all the chapters of the book are covered
- not all sections from selected chapters are covered
- we might not follow the order of the book

Supporting material will be posted on Canvas-this includes lecture videos, Quizzes, programming exercises and supplementary practice coding exercises.

Reading Like a Programmer: What Does It Mean?

How to Engage With the ZyBook (A Programmer's Reading Guide)
In CS153, reading doesn't mean just scrolling through examples. Critical reading in programming means:

- **Actively tracing code** — don't just watch segments of code, try them with different inputs.
- **Looking at visuals** (like flowcharts or memory models) and asking: *Does this help me understand? Could I explain this to someone else?*
- **Trying alternate scenarios** — What if the input was 0 instead of 5? What if the condition never becomes true?

- **Slowing down to understand the logic** behind the code — don't just copy it. Practice tracing the code by following each step of its execution and thinking through what the computer is doing at every line.

Every ZyBooks module includes:

- Interactive reading: Try every question, even if you miss it the first time. You should not lose any points in the Challenging Activities.
- Animations and code traces: Pause and ask yourself *why* each step happens.
- Participation and Challenging questions: Think about what's happening "behind the scenes" in memory.

*Note: When we do code-along activities in class or lecture videos, I'll be modeling this process out loud — listen for the **why**, not just the **what**.*

Grading Criteria

Each of the following components will contribute the indicated percentage to your overall grade.

Grading Distribution

Graded Assignments	**Percentage**
Midterm Exam (MCQ)	10%
Lab Midterm Exam (Coding)	10%
Final Exam (MCQ)	10%
Lab Final Exam (Coding)	10%
Quizzes	10%
ZyBooks Labs	20%
ZyBooks Challenging Activities	10%
Programming Exercises	15%
Reflection Activities	5%
Total	100%

Grading Scale

Letter Grade	Percent Scored
A	93 – 100%
A-	90 – 92%
B+	87 – 89%
B	83 – 86%
B-	80 – 82%
C+	77 – 79%
C	73 – 76%
C-	70 – 72%
D+	67 – 69%
D	63 - 66%
D-	60 - 62%
F	0 - 59%

Assignments and Exams

Midterm Exam and Final Exam (MCQ Lecture Exams)

The Midterm and Final exams will be closed book, closed notes, with no external resources permitted. This includes—but is not limited to—web searches, class notes, coding environments (such as Spyder), or any other IDEs. Students are expected to rely solely on their understanding of the course material.
These exams will consist of multiple-choice questions similar in format to the quizzes and will be administered online using smart proctoring software. The Final Exam will be held according to the official university final exam schedule.

Please note: *Attempting to access external tools, including opening coding software during the exam, is a violation of exam rules—even if used only to test code. All students are expected to follow the academic integrity policy.*

Lab Midterm Exam and Lab Final Exam (Coding Lab Exams)

The Lab Midterm and Lab Final Exams are comprehensive programming assignments that must be completed individually. These will take place during the scheduled lab time for live classes, or online through smart proctoring for asynchronous sections.
The Lab Midterm Exam is closed notes, while the Lab Final Exam will be open class notes.

ZyBooks Challenging Activities

ZyBooks includes interactive "Challenging Activities" designed to reinforce key programming concepts. Students are expected to complete these exercises weekly before the posted deadlines. These activities are an essential part of the learning process and help students actively apply what they've read in each chapter.

ZyBooks Labs

Weekly ZyBooks Labs should be completed and submitted on Zybook before the due date. The teaching assistants (TAs) will be available during lab section time to help students design the algorithms and write the code.

Quizzes

Online quizzes will be available on Canvas and must be completed by the posted due date. Each quiz will have a time limit of approximately 30 minutes and will automatically close at the deadline. To prepare, students are expected to read the corresponding ZyBooks chapter and complete the Challenging Activities before attempting the quiz.

Programming Exercises

In addition to ZyBooks activities and lab work, students will complete Programming Exercises available on Canvas. These exercises are designed to reinforce problem-solving skills and provide deeper practice with the core concepts introduced in each module. All exercises must be completed individually — collaboration or discussion with anyone other than the course instructor or TA is not allowed. Submission instructions will be provided with each assignment, and all exercises must be submitted via Canvas.

Reflection Activities

Short reflection activities will appear throughout the course to help you think more intentionally about how you read, interpret, and debug code. These may include flowchart analysis, reading strategy practice, or debugging challenges. Some reflections may also invite you to share your learning journey — what's clicked, what's been frustrating, or general feedback on your progress.

Think of them as a light "coding journal" to help you grow as a problem-solver. Formats will vary and may include Canvas forms, prompts, or short worksheets.

Feedback on Assignments

- You can expect feedback on most assignments within **one week** of submission (some may take longer).
- Assignment Solutions will be posted to the entire class after grades are announced
- Auto-graded items (like quizzes) provide **immediate** feedback; for deeper clarification, feel free to email or schedule appointment for office hours.
- If you need an alternative feedback format (e.g., audio with transcript), please let me know, and I'll do my best to accommodate.

Grade Posting

- **Quiz grades** and ZyBooks activities/Labs are typically available **immediately** after you complete them on Canvas.
- **Programming exercises** are graded **weekly**, usually before the next assignment is posted.
- Check Canvas Grades regularly and email me if you see any discrepancy.

Student Responsibilities

Students are expected to:

- check Canvas regularly
- read the selected chapters from textbook
- watch supporting videos
- complete and submit the assignment, weekly labs and quizzes before the due date
- check your grades frequently on Canvas. It is the student responsibility to inform the instructor if there is an error in his/her grades within two days of posting the grades on Canvas.
- Attend all exams
- Use time wisely and be organized
- Have the motivation to work independently, e.g. solve extra problems, participation activities, or programming quizzes (if any) in each section from the textbook
- Follow the rules of sending email

- Discuss private issues by email
- Follow the course polices and guidelines

Time Management

This is a 4-credit course, and students are expected to dedicate approximately 14 hours per week to course-related work. This includes about 7 hours per week for engaging with course content—reading ZyBooks chapters, watching lecture videos, or attending class meetings—and another 7 hours per week for completing coding assignments, programming exercises, and supplementary practice.

General submission rules

- Late submission will not be permitted. It is the student's responsibility to make sure that he/she submitted the correct file/files to Canvas before the due date.
- Students should save a read only version of any source code at the time it is submitted. Keep this back up copy until the graded work is returned.
- There are no 'make-ups' for the assignments/quizzes/weekly labs/exams.

Course Policies

Contact Policy

Announcements

- I will post announcements regularly (at least once a week). Check Canvas often to stay updated on reminders, upcoming deadlines, and any course-related news.

Email

- All email related to this course should have the phrase **CS 153** in the subject line. This flags your message in my mailbox for faster attention.
- **Email is my favorite mode of communication with students.** Don't hesitate to email me your questions, I would be happy to provide guidance when needed. Questions related to getting help with the Assignments need to be directed to the TAs in their office hours.

Rules for emails:

- Identify yourself
- email to aramlatc@odu.edu

- **Please make sure to include the class name "CS153" in the subject of your email**, otherwise I will not be able to know which class you are talking about
- Use your university e-mail account to send emails. Sign with your full name and course number

Use of Discussion Boards

Use the Discussions link Q&A Café Discussion Forum in Canvas to ask for clarification on assignments, readings, due dates, or anything else related to each week's information. *If you know the correct answer, feel free to answer your peer's questions*. The main purpose of the Discussion board is for students to communicate with each other, without sharing personal details related to grades. The discussion board is not a place to ask about specific questions related to solution of the assignments. These questions need to be asked to the TAs during their office hours.

Please refer to the Academic Honesty section in the Syllabus for more details. The teaching team will not monitor the Discussion board closely, so any specific questions need to be addressed to the TAs or the instructor.

Office Hours

MWF 9-10, or by appointment (strongly encouraged)

DRGS 1103F

Online Classroom Conduct (Netiquette)

Whether attending live sessions, participating in online discussions, or interacting with TAs and peers, students are expected to uphold a **respectful and professional learning environment**.

General guidelines for conduct include:

- Be respectful and courteous in all interactions—**disruptive or disrespectful behavior will not be tolerated**
- **Use appropriate language** and tone when addressing instructors, TAs, and classmates
- Keep questions and comments **focused on the topic or assignment at hand**

- Avoid dominating lab time with unrelated or excessively technical software questions (e.g., line numbers, interface themes in Spyder)—these can be addressed outside of lab
- For complex or individualized issues, **email the TA and CC the instructor** rather than using class time
- Follow good online etiquette (Netiquette), including:
    - Use clear and concise language
    - Avoid ALL CAPS (considered shouting)
    - Do not engage in flaming or disrespectful debate
    - Proofread your writing for grammar and spelling
    - Support your ideas with evidence when appropriate

TAs are authorized to redirect or end discussions that are off-topic or monopolize class time. Let's work together to make the learning environment productive and inclusive for everyone.

For more on online etiquette, visit this link to find more information on NetiquetteLinks to an external site.inks to an external site.

Tests and Make-ups

The same information for homework will apply for tests and make-up work: If a situation has occurred that requires your time and attention which will prevent submitting your work on time, please notify your instructor 24 hours before the scheduled due date.

Course Disclaimer

Every attempt is made to provide a syllabus that is complete and that provides an accurate overview of the course. However, circumstances and events may make it necessary for the instructor to modify the syllabus during the semester. This may depend, in part, on the progress, needs, and experiences of the students.

University Policies

COVID-19 Response

If you are experiencing any symptoms of a possible COVID-19 infection or have come into contact with someone with COVID-19, please do not come to class. In addition, you **must** report your symptoms using the COVID-19 daily check-in text app. If you show

symptoms, immediately self-isolate and follow appropriate guidance on when and where to seek medical care. Take every precaution to mitigate potential spread to fellow students, ODU faculty, staff, and others in the community.

If you need to quarantine or isolate, please inform your instructor so that he or she can adjust assignments and provide the level of support necessary to help you succeed in class. Your professor will make accommodations to help you learn the course material and succeed in the class if you are unable to attend due to Covid-19. If necessary, your instructor will suspend in-person classes for a 14-day period to reduce the possibility of community spread. If the instructor shows signs of COVID-19 infection and needs to quarantine or isolate, class will be immediately moved online for a minimum of 14 days. Instruction will continue online until the quarantine/isolation period has ended and/or conditions warrant a return to in-person instruction.

Your best action, as a Monarch, is to protect your peers! If in doubt, immediately isolate and report symptoms of COVID-19.

NOTICE/disclaimer: This syllabus is intended to give the student guidance in what may be covered during the semester and will be followed as closely as possible. These plans may change depending on factors outside of the faculty member's control. **The instructor reserves the right to modify, supplement and make changes as course needs arise**.

Class Conduct

The following standards are intended to define acceptable behavior that preserves academic integrity and ensures that students have optimum environmental conditions for effective learning.

1. Students should notify instructors in advance when falling behind. In the event of an emergency that might affect the progress in the course, instructors must be notified as soon as possible.
2. Students will activate their Old Dominion email accounts and check them before each class. If the student chooses to have his/her messages forwarded to another account, it is the student's responsibility to take the necessary steps to have them forwarded.
3. Offensive language, gestures and the like are disrespectful and disruptive to the teaching-learning process.

Academic Integrity

Old Dominion University is committed to students' personal and academic success. In order to achieve this vision, students, faculty, and staff work together to create an environment that provides the best opportunity for academic inquiry and learning. All students must be honest and forthright in their academic studies. Your work in this course and classroom behavior must align with the expectations outlined in the Code of Student Conduct, which can be found at www.odu.edu/oscai. The following behaviors along with classroom disruptions violate this policy, corrupt the educational process, and will not be tolerated.

- **Cheating:** Using unauthorized assistance, materials, study aids, or other information in any academic exercise.
- **Plagiarism:** Using someone else's language, ideas, or other original material without acknowledging its source in any academic exercise.
- **Fabrication:** Inventing, altering or falsifying any data, citation or information in any academic exercise.
- **Facilitation:** Helping another student commit, or attempt to commit, any Academic Integrity violation, or failure to report suspected Academic Integrity violations to a faculty member.

Academic dishonesty will be reported to the Office of Student Conduct & Academic Integrity and may result in sanctions up to and including expulsion from the University.

ChatGPT policy

The use of AI tools such as ChatGPT is **permitted only as a learning aid**, not as a source of final solutions. You may use AI to:

- **Ask conceptual questions**
- **Get help debugging or understanding errors**
- **Break down a problem or explore alternative approaches**

However, **you may NOT use AI to generate complete or partial solutions to graded assignments**, including programming exercises, quizzes, exams, or labs. Submitting AI-generated code as your own violates the academic integrity policy.

If you choose to use AI tools responsibly, treat them like a tutor: **engage actively, verify suggestions, and make sure you understand the solution yourself**. You are fully accountable for the code you submit.

Improper use of AI tools will be treated as plagiarism and may result in academic penalties.

Plagiarism

No plagiarism will be tolerated under any circumstances. As faculty, I am bound to report any instances of plagiarism. All cases are heard before the honor council. If found guilty, the student automatically receives a failing grade in the course, and a notice is entered into the permanent record for a period of time.

Honor Code

The Old Dominion University Honor Code will be strictly enforced. By attending Old Dominion University, you have signed a pledge accepting the responsibility to abide by the following Honor Code found at Office of Student Conduct and Academic Integrity.

We, the students of Old Dominion University, aspire to be honest and forthright in our academic endeavors. Therefore, we will practice honesty and integrity and be guided by the tenets of the Monarch Creed. We will meet the challenge to be beyond reproach in our actions and our words. We will conduct ourselves in a manner that commands the dignity and respect that we also give to others. ODU Honor Code

This is an institutional policy approved by the Board of Visitors. The University Honor Code applies to all assignments.

Honor Pledge

I pledge to support the honor system of Old Dominion University. I will refrain from any form of academic dishonesty or deception, such as cheating or plagiarism. I am aware that as a member of the academic community, it is my responsibility to turn in all suspected violators of the honor system. I will report to Honor Council hearings if summoned. ODU Honor Pledge

By attending Old Dominion University you have accepted the responsibility to abide by this code. This is an institutional policy approved by the Board of Visitors. For more information, please visit Policies and Student Responsibilities.

Educational Accessibility

In compliance with PL94-142 and more recent federal legislation affirming the rights of disabled individuals, provisions will be made for students with special needs on an individual basis. The student must be identified by the university and provide a letter from the Office of Educational Accessibility (OEA), located at 1021 Student Success Center. Any accommodations will be based upon written guidelines from the Office of Educational Accessibility (OEA). All students are expected to fulfill all course requirements.

Old Dominion University is committed to ensuring equal access to all qualified students with disabilities in accordance with the Americans with Disabilities Act. The Office of Educational Accessibility (OEA) is the campus office that works with students who have disabilities to provide and/or arrange reasonable accommodations.

- If you experience a disability which will impact your ability to access any aspect of my class, please present me with an accommodation letter from OEA so that we can work together to ensure that appropriate accommodations are available to you.
- If you feel that you will experience barriers to your ability to learn and/or testing in my class but do not have an accommodation letter, please consider scheduling an appointment with OEA to determine if academic accommodations are necessary.

The Office of Educational Accessibility is located at 1021 Student Success Center and their phone number is (757)683-4655. Additional information is available at the OEA Website.

University Email & Electronic Messaging Systems Policies

Electronic messaging systems and communication services are provided by Old Dominion University for the purpose of enhancing productivity and maintaining effective communication.

Old Dominion University employees, students, employees of affiliated organizations, and guests, volunteers, and researchers who are provided official email accounts must activate and maintain regular access to these accounts. These accounts must be used to send and receive electronic communications related to official University business.

Failure to access the email account will not exempt individuals from their responsibility of being aware of and meeting requirements and responsibilities included in electronic communications.

Message content is the sole responsibility of the individual sending the message and users must adhere to University Policy 3500, Use of Computing Resources, and Information Technology Standard 09.1.0, Acceptable Use Standard. Users are also encouraged to practice generally accepted online etiquette.

Instructors retain the discretion of establishing class expectations for email and other electronic messaging communication as a part of the course requirements.

Alternative messaging services should be arranged in cases where users' access to information technology resources is limited or unavailable.

Incomplete

Documented illnesses, deaths in family, car accidents, or other traumatic occurrences call for flexibility and good judgment on the part of the student and instructor. These situations are rare and are handled individually. Should such a situation occur, students **MUST** contact Student Outreach & Support. Email oducares@odu.edu or by phone 757-683-3442 to acquire the necessary documentation. An incomplete grade will only be given under the following circumstances

1. The student has completed ½ or more of the course requirements with a C or better
2. There is legitimate deficiency due to the illness or emergencies deemed acceptable to the instructor
3. There is not neglect on the student's part.

Withdrawal

A syllabus constitutes an agreement between the student and the course instructor about course requirements. Participation in this course indicates your acceptance of its teaching focus, requirements, and policies. Please review the syllabus and the course requirements as soon as possible. If you believe that the nature of this course does not meet your interests, needs or expectations, if you are not prepared for the amount of work involved - or if you anticipate that the class meetings, assignment deadlines or abiding by the course policies will constitute an unacceptable hardship for you - you should drop the class by the drop/add deadline, which is located in the ODU Schedule of Classes. For more information, please visit the Office of the Registrar.