INFO-1255 Python Course Syllabus Fall 2025

"Responsibility for learning belongs to the student, regardless of age" Robert Martin

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Keys to Success: Show Up, Work Hard, Ask for Help



Your Instructor
William A Loring

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Scottsbluff Office Hours: MW 1-2 pm, TTh 10-11 am or by appointment

Online Office Hours: By appointment: www.calendly.com/loringw

"There are no stupid questions. Ask questions whenever something isn't completely clear. You can't remember what you don't understand."

Tolerate chaos, uncertainty, and vagueness. "Figuring it out" is part of learning.

Class Meeting Times

Face to Face Class Location: Scottsbluff Campus, Room D1

• Scheduled Online Location: Zoom link in Blackboard

• **Time:** TTh 12:30-1:45 pm

Prerequisite

None

Catalog Description

This course is an introductory study of computer programming, problem solving methods, and accepted software engineering practices using Python, an interpreted programming language. Topics include the fundamentals of Python procedural programming, object-oriented programming, and introduction of advanced features of Python. This course prepares the student for further study in Computer Science, CyberSecurity, Robotics, GIS, Science, and Engineering.

3 semester hours

(3/45/0/0/0/0) See Figure 1

Course Objectives

Using this course as an instructional medium, the instructor will:

- 1. Define and explain common Python syntax, terms and concepts.
- 2. Explain and demonstrate how to design, develop and execute Python programs.
- 3. Demonstrate and model how to solve programming problems based on case studies.
- 4. Model self-directed and lifelong learning.

Student Learning Outcomes

Upon completion of this course, the student will be able to:

- Recognize and define common Python syntax, terms, and concepts. [GE 1, 2; INFO
 3]
- 2. Create and compile example Python programs. [GE 2; INFO 3]
- 3. Demonstrate the concepts of object-oriented programming, problem solving, and debugging by creating functional Python applications based on case studies. [GE 2; INFO 3]
- 4. Self-direct their learning while gaining an ongoing interest in learning more about programming. [GE 5; INFO 3]

Instructional Materials

All instructional materials, readings, and tutorials are in the Blackboard course. There is not a book required for this class.

OER (Open Educational Resources) are freely accessible, openly licensed text, media, and other digital assets that are useful for teaching, learning, and assessing as well as for research purposes. This is a concept that allows for open source sharing of educational materials for no cost.

There is a wealth of free educational material available for Python.

Some of the materials used in this course are adapted from OER (Open Educational Resources) resources. The OER materials used in this course are adapted under Creative Commons license https://creativecommons.org/licenses/by-nc-sa/3.0/us.

The following books were major sources for this class. You are not required to read these books; the links to the books are provided as a resource if you wish to read further.

- <u>The Coder's Apprentice</u>, Creative Commons, Pieter Spronck
- Python for Everybody, Creative Commons, Dr Charles Severance
- A Practical Introduction to Python Programming, Creative Commons, Brian Heinold
- <u>ISTE 1359 Introduction to Scripting Languages: Python</u>, Creative Commons, Richard Baldwin

Course Schedule

Course content and schedule may change.

Week	Learning Activities	Assignments
Week 1 08/18 - 08/24	Introduction Discussion Introduction to Course Chapter 1: Introduction to Programming Chapter 2: Getting Started with Python TTh 12:30-1:45 pm: Face to Face or Live Stream	Getting Started Activities Professional Communication Getting Started Quiz Install Python Chapter 2 Getting Started with Python Tutorials Chapter 2 Math
Week 2 08/25 - 08/31	Chapter 2: Getting Started with Python Chapter 3: Decisions TTh 12:30-1:45 pm: Face to Face or Live Stream	Chapter 3 Decisions Tutorials Chapter 2 Leave a Tip Guessing Game Chapter 2 Quiz
Week 3 09/01 - 09/07	Chapter 3: Decisions TTh 12:30-1:45 pm: Face to Face or Live Stream	Chapter 3 Temperature Converter Chapter 3 Payroll Advice with Overtime

	Code Guru	Sololearn Python Tutor Python Turtle Chapter 3 Quiz
Week 4 09/08 - 09/14	Chapter 4: Loops TTh 12:30-1:45 pm: Face to Face or Live Stream	Chapter 4 Loops Tutorials Paul the Pirate and His Guessing Game Rubber duck Debugging with AI Sololearn Python Tutor Python One Cool Cat (Meow Facts) or Days of Our Dogs API Tutorial
Week 5 09/15 - 09/21	Chapter 4: Loops TTh 12:30-1:45 pm: Face to Face or Live Stream Code Guru	Chapter 4 Irene the Insect Collector Chapter 4 Roshambo Sololearn Python Tutor Chapter 4 Quiz
Week 6 09/22 - 09/28	Chapter 5: Functions TTh 12:30-1:45 pm: Face to Face or Live Stream	Chapter 5 Function Tutorials Chapter 5 Joke and a Punch Line JokeAPI Tutorial Git Going with GitHub Sololearn Python Tutor
Week 7 09/29 - 10/05	Chapter 5: Functions TTh 12:30-1:45 pm: Face to Face or Live Stream Code Guru	Chapter 5 Text Adventure Chapter 5 Dave's Dice Game Sololearn Python Tutor Chapter 5 Quiz

		
Week 8 10/06 – 10/12	Chapter 6: Lists TTh 12:30-1:45 pm: Face to Face or Live Stream	Chapter 6 Lists Python Chapter 6 List Exercises Sololearn Python Tutor Text Adventure NeetoCode Discussion
Week 9 10/13 - 10/19 Fall Break	Chapter 6: Lists Th 12:30-1:45 pm: Face to Face or Live Stream Code Guru	Alice's Restaurant Python Getting Rich CLI
Week 10 10/20 - 10/26	Chapter 6: Dictionaries TTh 12:30-1:45 pm: Face to Face or Live Stream	Chapter 6 Dictionaries English to Spanish Dictionary Python Sololearn Tutorials Pygame Tutorial Part 1 Guild Project Team Process Teams and Zoom Lab
Week 11 10/27 - 11/02	Chapter 7: Object-Oriented Programming TTh 12:30-1:45 pm: Face to Face or Live Stream	Chapter 7 OOP Tutorials Healthy Vending Machine Guild Project Pygame Tutorial Part 2
Week 12 11/03 - 11/09	Chapter 7: Object-Oriented Programming TTh 12:30-1:45 pm: Face to Face or Live Stream Code Guru	Chapter 7 Car Class Dave's Dice Game Reloaded Chapter 7 Quiz Guild Project

		Pygame Tutorial Part 3
Week 13 11/10 - 11/16	Chapter 9: GUI TTh 12:30-1:45 pm: Face to Face or Live Stream	Chapter 9 GUI Tutorials Text to Speech CLI Circe's Circle Calculator OOP or Cecil's Cube Calculator OOP Python OpenWeatherMap API Tutorial CLI Part 1 Python Sololearn Tutorials Guild Project Pygame Tutorial Part 4
Week 14 11/17 11/23 Thanks giving	Chapter 9: GUI TTh 12:30-1:45 pm: Face to Face or Live Stream Code Guru Finale	Meow Facts Tkinter API Tutorial (Optional) Python OpenWeatherMap API Tutorial CLI Part 2 Chapter 8 Quiz Guild Project Pygame Tutorial Part 5
Week 15 11/24 - 11/30	Chapter 10: Files TTh 12:30-1:45 pm: Face to Face or Live Stream IT Career Discussion	Tkinter API Guest Book Python OpenWeatherMap API Tutorial CLI Part 3 OpenWeatherMap GUI Tutorial (Optional) Chapter 9 Quiz Guild Project Pygame Tutorial Part 6

Week 16 12/01 - 12/07	Lessons Learned Discussion	Python Vehicle OOP Individual Final Project Guild Project Pygame Tutorial Part 7
Finals 12/08 - 12/12	Finals Week	Python Vehicle OOP Individual Final Project Guild Project

Academic Integrity

The academic integrity policy for this course includes the Institutional Academic Integrity Policy listed in the WNCC Master Syllabus content linked at the end of this document.

- 1. Do your own work.
- 2. You can ask for help if you get stuck. It is OK to have a study buddy to help with problems or issues. It is not OK to turn in the same assignment as someone else.
- 3. If you use someone else's work for a small quote or reference, cite the source.
- 4. Use your own words and work.
- 5. Do your own work. We are here to learn. You can't learn without doing the work.

Artificial Intelligence (AI)

AI is best used ethically and responsibly.

- 1. AI (ChatGPT, etc.) is a tool, just like a pencil, a computer, or Google. All work submitted must be your own. You may not submit any work generated by an AI program as your own.
- 2. You will be working with AI in the workplace. Certain homework assignments will involve the use of AI technologies. The aim of these assignments is to familiarize you with practical AI applications.
- 3. If an assignment permits AI: Include the AI name, the prompt and the result.
- 4. Do not pass AI work off as your own.

NOTE: If an assignment seems out of character or not in the style we have been using in class: you will receive a 0 until you contact the instructor to explain how you arrived at this code.

AI use indicators:

No AI use. It is important for acquiring skills that you are able to do this assignment on your own.



AI can be used as a debugger or tutor. Include the prompt and results.



AI can be used as a code helper. Include the prompt and results.

Minor Violations: First offense: Grade of 0 for the assignment.

Major Violations: Second offense: Grade of F for the class.

Do your own work.

Assignment Creativity

As long as your assignment submission meets the requirements of the tutorial or assignment, you are free to embellish the resulting work as much as you wish before submission. This is where the real learning starts.

Attendance

In addition to the WNCC Attendance policy (in the WNCC Master Syllabus Contents) you are required to turn in your weekly notes to be considered attending this class.

WNCC Master Syllabus Contents

This link contains the common WNCC Syllabus policies.