

Computer Science 1 INFO-2355 Course Syllabus Spring 2026

"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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"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:** Tue & Thu, 11:00-12:15 pm

Prerequisite

INFO-2350 Intro to Computer Science

Catalog Description

This course is an extension of Introduction to Computer Science including the study of Object-Oriented programming, problem solving and accepted software engineering practices using a high-level programming language such as Python, Java, or C++. Topics include class and object development, object-oriented design, version control systems, GUI, data abstraction and current software engineering practices. This class prepares the student for further study in Computer Science.

3.0 semester hours

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

Course Objectives/Competencies

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

1. Recognize and define common Java syntax and terms [GE 2]
2. Design, develop, and run Java programs [GE 2]
3. Demonstrate the basic concepts of event driven and object-oriented programming, problem solving, and debugging by creating functional Java applications based on case studies [GE 2]
4. Apply the various data types and operators used in Java [GE 2]
5. Self-direct their learning while gaining an ongoing interest in learning more about programming [GE 5]

Instructional Materials

All instructional materials, readings, and tutorials are in the Blackboard course. Purchasing a book is not 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 programming.

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>.

Programming Languages

To prepare you for the current software development environment and transfer to a 4-year school, we will be working with three programming languages.

- Python
- Java
- C++

These languages are typically at the top of this list.

Course Schedule

Course content and schedule may change.

Week	Learning Activities	Assignments
Week 1 01/13 - 01/19	Python Chapter 10 Files Java Chapter 6 HashMaps C++ Chapter 6 Arrays and Vectors TTh 11:00-12:15 pm: In Person & Online Classroom	Getting Started Activities Install Python Install JDK Install CPP Compiler Python Chapter 10 Files Java Chapter.06 HashMaps C++ Sandhills Car Care Sololearn Tutorials
Week 2 01/20 - 01/26	Python Chapter 10 File Java Chapter 8 Strings C++ Chapter 6 Unordered Maps TTh 11:00-12:15 pm: In Person & Online Classroom Think Aloud	Python Persistent Todo List Python Public IP in Linux Java Chapter 8 Strings C++ Chapter 6 Unordered Maps Sololearn Tutorials
Week 3 01/27 - 02/02	Python Chapter 12 Database Java Chapter 8 Strings C++ Chapter 6 Unordered Maps TTh 11:00-12:15 pm: In Person & Online Classroom	Java Pig Latin Java Hello World in Linux Tutorial C++ Chapter 6 Structs SQL Basics Tutorial with Khan Academy Sololearn Tutorials

<p>Week 4</p> <p>02/03 - 02/09</p>	<p>Python Chapter 12 Database</p> <p>Java Chapter 9 GUI</p> <p>C++ Chapter 7 OOP</p> <p>TTh 11:00-12:15 pm: In Person & Online Classroom</p> <p>Think Aloud</p>	<p>SQL Basics Tutorial with Khan Academy</p> <p>Java Eclipse Temperature Converter GUI</p> <p>C++ Chapter 7 OOP</p> <p>C++ Hello World in Linux Tutorial</p> <p>Sololearn Tutorials</p>
<p>Week 5</p> <p>02/10 - 02/16</p>	<p>Python Chapter 12 Database</p> <p>Java Chapter 9 GUI</p> <p>C++ Chapter 7 OOP</p> <p>TTh 11:00-12:15 pm: In Person & Online Classroom</p>	<p>C++ Chapter 7 Pointers</p> <p>SQL Basics Project</p> <p>Java Eclipse MPG GUI</p> <p>C++ OOP Rectangle Header Files Tutorial</p> <p>Sololearn Tutorials</p>
<p>Week 6</p> <p>02/17 - 02/23</p>	<p>Python Chapter 12 Database</p> <p>Java Chapter 12 Database</p> <p>C++ Chapter 7 OOP</p> <p>TTh 11:00-12:15 pm: In Person & Online Classroom</p> <p>Think Aloud</p>	<p>Python SQLite Game Shop Relational Database</p> <p>Java Chapter 12 Database</p> <p>C++ Circle OOP</p> <p>Guild Team Programming Team Charter</p> <p>Sololearn Tutorials</p>
<p>Week 7</p> <p>02/24 - 03/02</p>	<p>Python Chapter 16 Web Development</p> <p>C++ Chapter 12 Database</p> <p>TTh 11:00-12:15 pm: In Person & Online Classroom</p>	<p>PythonPing Network Scanner</p> <p>Python Chapter 16 Web Development</p> <p>Python Chapter 7 OOP Inheritance</p> <p>C++ Chapter 12 Database</p> <p>Sololearn Tutorials</p>

<p>Week 8</p> <p>03/03 - 03/07</p>	<p>Python Chapter 16 Web Development</p> <p>TTh 11:00-12:15 pm: In Person & Online Classroom</p> <p>Think Aloud</p>	<p>Python Threading</p> <p>Flask Unit Converter</p> <p>Python OOP Inheritance Alien Detector</p> <p>Sololearn Tutorials</p>
<p>03-10 - 03-16</p>	<p>Spring Break</p>	
<p>Week 10</p> <p>03/17 - 03/23</p>	<p>Java Chapter 10 Files</p> <p>TTh 11:00-12:15 pm: In Person & Online Classroom</p>	<p>PythonPing Network Scanner with Threading</p> <p>Python Jarvis Project Wikipedia</p> <p>Java Chapter 10 Files</p> <p>Java Fred's File Challenge</p> <p>C++ Chapter 8 Strings</p> <p>Guild Semester Project</p> <p>Sololearn Tutorials</p>
<p>Week 11</p> <p>03/24 - 03/30</p>	<p>Java Chapter 7 OOP Inheritance</p> <p>C++ Chapter 8 Strings</p> <p>TTh 11:00-12:15 pm: In Person & Online Classroom</p> <p>Think Aloud</p>	<p>Python Tres Cabelleros Collatz Conjecture</p> <p>Java Chapter 7 OOP Inheritance</p> <p>Java OOP Inheritance Myra's Candles</p> <p>C++ Pig Latin</p> <p>Guild Semester Project</p> <p>Sololearn Tutorials</p>

<p>Week 12</p> <p>03/31 – 04/06</p>	<p>Java Chapter 16 Web Development</p> <p>TTh 11:00-12:15 pm: In Person & Online Classroom</p>	<p>Python Network Client Server</p> <p>Java Chapter 16 JSP</p> <p>Bubble Sort</p> <p>Java Tres Cabelleros Collatz Conjecture</p> <p>Guild Semester Project</p> <p>Sololearn Tutorials</p>
<p>Week 13</p> <p>04/07 – 04/13</p>	<p>Python Chapter 15 Data Science</p> <p>TTh 11:00-12:15 pm: In Person & Online Classroom</p> <p>Think Aloud</p>	<p>Python Chapter 15 Data Science (NumPy)</p> <p>Python Simple Network Chat</p> <p>JSP Tutorial Java Inside HTML</p> <p>C++ Tres Cabelleros Collatz Conjecture</p> <p>Guild Semester Project</p> <p>Sololearn Tutorials</p>
<p>Week 14</p> <p>04/14 – 04/20</p>	<p>Python Chapter 15 Data Science</p> <p>TTh 11:00-12:15 pm: In Person & Online Classroom</p>	<p>Python Chapter 15 Data Science (pandas)</p> <p>C++ Loaded Dice OOP</p> <p>JSP Lb Kilo Converter</p> <p>Guild Semester Project</p> <p>Sololearn Tutorials</p>
<p>Week 15</p> <p>04/21 – 04/27</p>	<p>Python Chapter 15 Data Science</p> <p>TTh 11:00-12:15 pm: In Person & Online Classroom</p> <p>IT Careers Discussion</p> <p>Think Aloud</p>	<p>Python Chapter 15 Data Science (Matplotlib)</p> <p>Python Unittests</p> <p>C++ Inheritance</p> <p>Guild Semester Project</p> <p>Sololearn Tutorials</p>

<p>Week 16</p> <p>04/28 – 05/04</p>	<p>Python Chapter 15 Data Science</p> <p>TTh 11:00-12:15 pm:</p> <p>In Person & Online Classroom</p> <p>Lessons Learned Discussion</p>	<p>Python Chapter 15 Data Science Project</p> <p>C++ Vehicle Inheritance</p> <p>Guild Semester Project</p>
<p>Finals</p> <p>05/05 - 05/09</p>		<p>Final Project: Guild Team Programming</p> <p>Final Think Aloud</p>

Academic Integrity

The academic integrity policy for this course includes the Institutional Academic Integrity Policy listed 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.
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.