North Central State College

MASTER SYLLABUS	2025-2026

A. Academic Division: Engineering Technology, Business & Criminal Justice Division

B. Discipline: Information Technology – Software Development

C. Course Number and Title: ITEC1860 – Introduction to Programming

D. Assistant Dean: Brooke Miller, M.B.A.

E. Credit Hours: 3
Lecture: 2 hours
Laboratory: 2 hours

F. Prerequisites: None

G. Last Course/Curriculum Revision Date: Fall 2025 Origin date: 02/02/2016

H. Textbook(s) Title:

No Textbook Required

I. Workbook(s) and/or Lab Manual: An external USB3.2 hard drive required. See below.

CRUCIAL X6 1TB PORTABLE SSD - UP TO 800MB/S - PC AND MAC - USB 3.2 USB-C EXTERNAL SOLID STATE DRIVE - CT1000X6SSD9 (B08FSZT2J7) (NO RETURNS ALLOWED)

- eCampus
- ISBN#: 8780000191138

J. Course Description: Python is a user-friendly, object-oriented programming language. This course provides a clear, accessible, and skill-focused approach to programming with Python using Python 3. The course offers students a thorough overview of multiple applied areas, including image processing, cryptography, astronomy, the Internet, and bioinformatics. Problem sets are based on real-world examples and problem-solving rather than language features. This course offers students a solid platform of key problem-solving skills that translate easily across programming languages.

North Central State College

SYLLABUS ADDENDUM

Academic Division:	Engineering Technology, Business & Criminal Justice Division	**Discipline:**	Information Technology
Course Coordinator:	Daniel Foss		
Course Number:	ITEC-1860	**Course Title:**	Introduction to Programming
Semester / Session:	Fall 2025	**Start / End Date:**	8/11/2025 thru 12/12/2025

Instructor Information

Name:	Daniel Foss	**Credentials:**	M.Ed., Curriculum and Instruction – Computer B.S., Education
Phone Number:	419-755-4728	**E-Mail Address:**	dfoss@ncstatecollege.edu
Office Location:	Kehoe Room 141 and Online via Zoom: https://tinyurl.com/ITEC-Office-Hours	**Office Hours:**	Mondays 10:00am - 1:00pm online at https://tinyurl.com/ITEC-Office-Hours Wednesdays, 8:00-10:00am at Kehoe 139 Other days/times by appointment

I. Topical Timeline / Course Calendar (Subject to Change – refer to Canvas for schedule):

Week	Topics	Assignment	Due Date
1	PE1: Module 1 – Introduction to Programming and Python	**Module 1 Completion – Module Test**: Comprehensive assessment on Module 1 covering fundamentals of how programs work, differences between languages, compilation vs. interpretation, Python history, features, and installation/setup. Format includes multiple-choice and short-answer questions to check conceptual understanding.	08/15/2025
2	PE1: Sections 2.1–2.2, Hello World, Literals	**Labs & Quizzes**: Practice with the print() function, output formatting, escape sequences, and creating/using Python literals (strings, integers, floats, booleans). Quizzes test recognition and correct usage of syntax and data types.	08/22/2025
3	PE1: Sections 2.3–2.4, Operators & Variables	**Labs & Quizzes**: Hands-on coding using arithmetic operators, precedence rules, variable creation and naming, assignment, and simple type conversions. Quizzes check accuracy of expressions, calculations, and code tracing.	08/29/2025
4	PE1: Sections 2.5–2.6, Comments & User Input	**Labs & Quizzes + Module 2 Completion Test**: Exercises on writing comments, using input() for user interaction, casting between types, and basic string operations. Quizzes verify syntax and function usage. Module 2 Test covers all topics in this module.	09/05/2025
5	PE1: Section 3.1, Making Decisions in Python	**Labs & Quiz**: Practice with conditional execution using if, if-else, and if-elif-else, along with comparison operators. Quiz checks ability to trace and predict outcomes of branching logic.	09/12/2025

6	PE1: Section 3.2, Loops in Python	**Labs & Quiz**: Implement while and for loops, control flow with break and continue, and use loop else branches. Quiz ensures mastery of iteration patterns and correct loop behavior.	09/19/2025
7	PE1: Sections 3.3–3.6, Logic, Lists, Sorting	**Labs & Quizzes + Module 3 Completion Test**: Apply logical and bitwise operators, create and manipulate lists, slice and search, and implement a bubble sort. Quizzes and final module test ensure understanding of data structures and algorithms.	09/26/2025
8	PE1: Module 4, Functions, Tuples, Dictionaries, Exceptions	**Labs & Quizzes + Module 4 Completion Test + PE1 Final Exam**: Write custom functions with parameters and return values, work with tuples/dictionaries, handle exceptions, and solve algorithmic problems (e.g., prime checking, date calculations). The final exam covers all PE1 content.	10/03/2025
9	PE2: Module 1, Modules, Packages, PIP	**Section Quizzes + Module 1 Completion Test**: Assess importing modules, creating packages, using standard libraries (math, random, platform), and managing packages with PIP.	10/10/2025
10	PE2: Sections 2.1–2.3, Strings Basics & Methods	**Labs & Quizzes**: Explore string creation, slicing, immutability, and built-in methods. Labs include building a custom split() function. Quizzes confirm correct method application and string handling.	10/17/2025
11	PE2: Sections 2.4–2.5, Strings in Action, Programs	**Labs & Quizzes**: Work with string comparison, sorting, number parsing, and mini-projects (e.g., Caesar cipher, palindrome and anagram detection, word find). Quizzes evaluate applied string processing skills.	10/24/2025
12	PE2: Sections 2.6–2.8, Exceptions Basics	**Labs & Quizzes + Module 2 Completion Test**: Debugging techniques, safe integer input handling, and using built-in exceptions. Quizzes test error handling flows; the module test covers strings through exceptions.	10/31/2025
13	PE2: Module 3, OOP Basics, Properties	**Labs & Quizzes**: Implement simple classes and objects, stacks/queues, and manage attributes. Quizzes validate understanding of OOP principles, instance vs. class variables, and encapsulation.	11/07/2025
14	PE2: Modules 3.4–3.6, Methods, Inheritance, Exceptions	**Labs & Quizzes + Module 3 Completion Test**: Build and use class/instance methods, practice inheritance patterns, resolve MRO issues, and create custom exceptions. The module test assesses all OOP content.	11/14/2025
15	PE2: Module 4, Generators, Files, OS, Date/Time, Calendar	**Labs & Quizzes + Module 4 Completion Test**: Develop generators, process files, work with the OS module for file system tasks, and manipulate dates/times/calendars. Module 4 Test is the final module-level assessment.	11/21/2025
16	PE2: Finals & Wrap-Up	**PE2 Final Exam + Optional PCAP Certification Exam**: Cumulative course exam plus an optional industry certification assessing applied Python programming knowledge at the associate level.	12/12/20

II. Grading and Testing Guidelines:

Category	Count	Weight
Labs	**50**	**40 %**
Projects	**2**	**20 %**
Quizzes	**44**	**20 %**
Exams	**12**	**20 %**

- Grading scale is the college grading scale:

NUMERIC	GRADE	POINTS	DEFINITION
93–100	A	4.00	Superior
90–92	A-	3.67	Superior
87–89	B+	3.33	Above Average
83–86	B	3.00	Above Average
80–82	B-	2.67	Above Average
77–79	C+	2.33	Average
73–76	C	2.00	Average
70-72	C-	1.67	Below Average
67–69	D+	1.33	Below Average
63-66	D	1.00	Below Average
60-62	D-	0.67	Poor
00-59	F	0.00	Failure

III. Examination Policy:

- All exams must be submitted through the Cisco Networking Academy LMS and/or Canvas.
- You may reference the online curriculum, official Python documentation, and other reputable sources.
- Collaboration on exams is not permitted unless explicitly authorized.
- AI tools (e.g., Copilot, ChatGPT) are not allowed during quizzes or exams.
- Free Tutoring Service is available: https://ncstatecollege.edu/student-services/tutoring/

Assignment Policy:

- All assignments must be completed using the Cisco Networking Academy LMS and/or Canvas.
- AI Tools like Copilot and ChatGPT may be used for feedback or clarification, but final submissions must reflect your own independent work.
- Use of the online curriculum for reference is encouraged.
- Projects must be completed using Python programming tools such as IDLE, Visual Studio Code, or Jupyter Notebook, along with online resources.
- You may consult documentation, tutorials, and forums for guidance.
- Download, complete, and upload your own work. All submitted project files must be your own original work.
- Plagiarism or submission of work not your own is a serious offense and may result in course failure.
- If you need assistance with the course assignments, contact the Tutoring Department or the Instructor. Tutoring Information (free) can be found at: https://ncstatecollege.edu/student-services/tutoring/

IV. Course Attendance and Late Assignment Policy:

- Class attendance is recorded by completion of weekly assignments and activities.
- Assignments are due before midnight every Friday.
- Early submissions are encouraged.
- Except for the final project, all assignments are allowed to be submitted late.
- Each assignment builds on previous work, do not skip assignments. If it is late, submit as soon as possible.
- If you anticipate missing a deadline, contact the instructor in advance to discuss possible accommodation.
- Excused absences include:

  a. Hospitalization
  b. Death in the family
  c. Personal illness or illness in immediate family
  d. Military leave
  e. Travel for employment

V. Course Expectations:

- All students are expected to demonstrate professional behavior and use language appropriate for the learning experience, both written and orally.
- For online classes, students are required to have access to an internet connection and a laptop or desktop computer. Chromebooks are not adequate for this course.
- MacBooks are acceptable, however, there may be some assignments that can only be completed on a Windows computer.
- The college provides free computer labs - https://ncstatecollege.edu/student-services/computer-labs/ and loaner laptops - https://ncstatecollege.edu/advocacy-and-resources/ - select Technology Resources

K. College-Wide Learning Outcomes:

College-Wide Learning Outcome	Assessments - - How it is met & When it is met
Communication – Written	
Communication – Speech	
Intercultural Knowledge and Competence	
Critical Thinking	
Information Literacy	
Quantitative Literacy	

L. Course Outcomes and Assessment Methods:

Upon successful completion of this course, the student shall:

Outcomes	Assessments – How it is met & When it is met
1. Describe the use of lists as a means of storing data	Weeks 2-4 labs, midterm/final exam
2. Demonstrate nested iteration	Weeks 5-6 labs, midterm/final exam
3. Demonstrate image processing algorithms	Week 7 labs, midterm/final exam
4. Explain advanced examples of using lists in Python	Week 8 labs, midterm/final exam
5. Create recursive functions	Week 9 labs, midterm/final exam
6. Implement graphical simulations using objects	Weeks 10 & 11 labs, final exam
7. Design a large multiclass application	Weeks 12-14 labs, final exam
8. Create a working object-oriented graphics package	Weeks 12-14 labs, final exam

M. Recommended Grading Scale:

NUMERIC	GRADE	POINTS	DEFINITION
93–100	A	4.00	Superior
90–92	A-	3.67	Superior
87–89	B+	3.33	Above Average
83–86	B	3.00	Above Average
80–82	B-	2.67	Above Average
77–79	C+	2.33	Average
73–76	C	2.00	Average
70-72	C-	1.67	Below Average
67–69	D+	1.33	Below Average
63-66	D	1.00	Below Average
60-62	D-	0.67	Poor
00-59	F	0.00	Failure

N. College Procedures/Policies:

North Central State College believes that every student is a valued and equal member of the community.* Every student brings different experiences to the College, and all are important in enriching academic life and developing greater understanding and appreciation of one another. Therefore, NC State College creates an inclusive culture in which students feel comfortable sharing their experiences. Discrimination and prejudice have no place on the campus, and the College takes any complaint in this regard seriously. Students encountering aspects of the instruction that result in barriers to their sense of being included and respected should contact the instructor, assistant dean, or dean without fear of reprisal.

* *Inclusive of race, color, religion, gender, gender identity or expression, national origin (ancestry), military status (past, present or future), disability, age (40 years or older), status as a parent during pregnancy and immediately after the birth of a child, status as a parent of a young child, status as a foster parent, genetic information, or sexual orientation*

Important information regarding College Procedures and Policies can be found on the syllabus supplement located at https://ncstatecollege.edu/documents/President/PoliciesProcedures/PolicyManual/Final%20PDFs/14-081b.pdf