



North Central State College
MASTER SYLLABUS
2019-2020

- A. Academic Division: Business, Industry, and Technology
- B. Discipline: Information Technology – Software Development
- C. Course Number and Title: ITEC1860 – Introduction to Programming
- D. Course Coordinator: Jesse Payne
Assistant Dean: Toni Johnson, PhD

Instructor Information:

- Name: [Click here to enter text.](#)
- Office Location: [Click here to enter text.](#)
- Office Hours: [Click here to enter text.](#)
- Phone Number: [Click here to enter text.](#)
- E-Mail Address: [Click here to enter text.](#)

- E. Credit Hours: 3
Lecture: 2 hours
Laboratory: 2 hours
- F. Prerequisites: None
- G. Syllabus Effective Date: Fall 2019
- H. Textbook(s) Title:

Python Programming in Context

- Authors: Bradley N. Miller, David L. Ranum
- Publisher: Jones & Bartlett Learning
- Copyright Year: 2013
- Edition: 2nd Edition
- ISBN#: 1449699391

- I. Workbook(s) and/or Lab Manual: An external USB3.0 hard drive, 500 gigabytes or larger is required.

Python Pocket Reference

- Author: Mark Lutz
- Copyright Year: 2014
- Edition: 5th Edition
- ISBN#: 9781449357016

- 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.

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. Topical Timeline (Subject to Change):

Week 1: Python Overview
 Week 2: π thon
 Week 3: Codes and Other Secrets
 Week 4: A nest of Snakes: Introducing the Python Collections
 Week 5: Earthquakes, Floods, and Other Natural Disasters
 Week 6: PICTURE Perfect Programs
 Week 7: Data Mining: Cluster Analysis
 Week 8: Cryptanalysis
 Week 9: Fractals: The Geometry of Nature
 Week 10: Astronomy
 Week 11: Bears, Fish, and Plants, Oh My!
 Week 12: Your Father Was a Rectangle
 Week 13: Video Games
 Week 14: Labs
 Week 15: Review, Term Project (optional)
 Week 16: Lab Makeup/Final Exam

N. Course Assignments:

1. Labs
2. Tests
3. Midterm Exam
4. Final Exam
5. Final Project (optional)

O. 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 |

P. Grading and Testing Guidelines:

Click here to enter text.

Q. Examination Policy:

Click here to enter text.

R. Class Attendance and Homework Make-Up Policy:

Click here to enter text.

S. Classroom Expectations:

Click here to enter text.

T. College Procedures/Policies:

Important information regarding College Procedures and Policies can be found on the [syllabus supplement](#) located at <https://sharept.ncstatecollege.edu/committees/1/curriculum/SiteAssets/SitePages/Home/SYLLABUS%20SUPPLEMENT.pdf>

The information can also be found Choose an item.