1. **COURSE TITLE\*: Introduction to Computer Programming**
2. **CATALOG – PREFIX/COURSE NUMBER/COURSE SECTION\*: CSCI 1121**
3. **PREREQUISITE(S)\*: None COREQUISITE(S)\*: None**
4. **COURSE TIME/LOCATION: (*Course Syllabus – Individual Instructor Specific*)**
5. **CREDIT HOURS\*: 3 LECTURE HOURS\*: 2**

 **LABORATORY HOURS\*: 1 (2 contact hours) OBSERVATION HOURS\*:**

1. **FACULTY CONTACT INFORMATION: *(Course Syllabus – Individual Instructor Specific)***
2. **COURSE DESCRIPTION\*:**

This course is designed to familiarize students with the fundamental concepts and techniques of a computer programming language. Using current programming languages, students will design, code and test programs using the basic structures of sequence, data types, control structures, algorithm development, and program design with functions.

1. **LEARNING OBJECTIVES\*:**

Upon completion of this course students will understand core programming basics—including data types, control structures, algorithm development, and program design with functions—via the Python programming language. The course discusses the fundamental principles of Object-Oriented Programming, as well as in-depth data and information processing techniques. Students will problem solve, explore real-world software development challenges, and create practical and contemporary applications using graphical user interfaces, graphics, and network communications.

Specific topic coverage includes:

1. Algorithms and Information Processing
2. Control Structures
3. Boolean logic and Numeric Data Types
4. Strings, Text Files, Lists, and Dictionaries
5. Procedural Abstraction in Function Definitions
6. Objects and Classes
7. Graphics and Image Processing
8. Networks and Client/Server Programming
9. Graphic User Interfaces (GUI)
10. Events and Event-driven Programming
11. **ADOPTED TEXT(S)\*:**

*Starting Out with Python, 5th Edition*

Author:Tony Gaddis

Publisher: Pearson, 2020

ISBN-13: 978-0-13-685194-3

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**9a: SUPPLEMENTAL TEXTS APPROVED BY FULL TIME DEPARTMENTAL FACULTY (INSTRUCTOR MUST NOTIFY THE BOOKSTORE BEFORE THE TEXTBOOK ORDERING DEADLINE DATE PRIOR TO ADOPTION) \*\*\*.**

1. **OTHER REQUIRED MATERIALS: (SEE APPENDIX C FOR TECHNOLOGY REQUEST FORM.)\*\***
2. Python Version 3.5.1
3. Student Data Files
4. MyProgrammingLab Access Code bundled with textbook to access online resources.
5. **GRADING SCALE\*\*\*:**

Grading will follow the policy in the catalog. The scale is as follows:

A: 90 – 100

 B: 80 – 89

 C: 70 – 79

 D: 60 – 69

 F: 0 – 59

1. **GRADING PROCEDURES OR ASSESSMENTS:**
2. Instructor will specify which criteria apply to a particular assignment.
3. Students will complete multiple exercises using student provided data files to assist with programming design.
4. Early emphasis on problem solving and algorithm development with case study development.
5. Other assignments, projects and exercises may be assigned and graded at the discretion of the instructor.
6. Students will reflect mastery of course material thru project and programming designs, periodic tests, quizzes, assessments, and exams.

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| *Category* | ***EXAMPLE ONLY****Total Points* | *% of Grade* |
| Chapter Assignments (10x30) | 300 | 30% |
| Quizzes (10x20) | 200 | 20% |
| Unit Exams (3x100) | 300 | 30% |
| Assignments (5x10) | 50 | 5% |
| Annual Report Project (100) | 100 | 10% |
| Attendance | 50 | 5% |
| Total | 1000 | 100% |

1. **COURSE METHODOLOGY OR COURSE FORMAT:**

Can include various programming challenges and creations by:

1. Exploration of real-world software development challenges
2. Creation of practical and contemporary applications
3. Utilization of structured and graphical programming interfaces
4. **COURSE OUTLINE:**

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| Week 1 | Chapter 1 – Introduction to Computers and Programming | Objectives: 1 |
| Week 2 | Chapter 2 – Input, Processing and Output | Objectives: 1, 2, 4  |
| Week 3 | Chapter 3 – Decision Structures and Boolean Logic | Objectives: 2, 3 |
| Week 4 | Chapter 4 – Repetition Structures | Objectives: 2, 3 |
| Week 5 | Chapter 5 – Functions and Modules | Objectives: 1, 5 |
| Week 6 | Chapter 6 - Files and Exceptions | Objectives: 3, 4 |
| Week 7 | Chapter 7 - Lists and Tuples | Objectives: 3, 4 |
| Week 8 | Midterm | Objectives: 1, 2, 3, 4, 5 |
| Week 9 | Chapter 8 – More About Strings | Objectives: 4 |
| Week 10 | Chapter 9 – Dictionaries and Sets | Objectives: 3, 4 |
| Week 11 | Chapter 10 – Classes and Object-Oriented Programming | Objectives: 5, 6, 10 |
| Week 12 | Chapter 11 – Inheritance | Objectives: 5, 10 |
| Week 13 | Chapter 12 – Recursion | Objectives: 5, 10 |
| Week 14 | Chapter 13 – GUI Programming | Objectives: 5, 6, 7, 8, 9, 10 |
| Week 15 | Project Completion | Objectives:1, 2, 3, 4, 5, 6, 7, 8, 9, 10 |
| Week 16 | Final | Objectives: 6, 7, 8, 9, 10 |

**15. SPECIFIC MANAGEMENT REQUIREMENTS\*\*\*:**

**16. FERPA: \***

Students need to understand that their work may be seen by others. Others may see your work when being distributed, during group project work, or if it is chosen for demonstration purposes. Students also need to know that there is a strong possibility that your work may be submitted to other entities for the purpose of plagiarism checks.

**17**. **ACCOMMODATIONS: \***

Students requesting accommodations may contact Ryan Hall, Accessibility Coordinator at rhall21@sscc.edu or 937-393-3431, X 2604.

Students seeking a religious accommodation for absences permitted under Ohio’s Testing Your Faith Act must provide the instructor and the Academic Affairs office with written notice of the specific dates for which the student requires an accommodation and must do so no later than fourteen (14) days after the first day of instruction or fourteen (14) days before the dates of absence, whichever comes first. For more information about Religious Accommodations, contact Ryan Hall, Accessibility Coordinator at rhall21@sscc.edu or 937-393-3431 X 2604.

**18. OTHER INFORMATION\*\*\*:**

**SYLLABUS TEMPLATE KEY**

**\*** Item cannot be altered from that which is included in the master syllabus approved by the Curriculum Committee.

**\*\*** Any alteration or addition must be approved by the Curriculum Committee

**\*\*\*** Item should begin with language as approved in the master syllabus but may be added to at the discretion of the faculty member.