

# PENSACOLA STATE COLLEGE

# Programming Concepts - Section Syllabus COP1510 Section P2059, Pensacola Campus Spring 2024, Session A

Instructor: Ms. Kumar Office: Phone: Email: vkumar@pensacolastate.edu Office Hours: TBA

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**Final Exam Date:** Published in the Pensacola State College Final Exam Schedule **Last Date of Drop/Add:** 18 January 2024 **Last Date for Student to Withdraw:** 08 April 2024

**Course Description:** Provides the beginning programmer with a guide to developing structured program logic and assumes no programming language experience. Emphasis on programming concepts, design solutions, algorithms, pseudocode, flow charts, debugging, and documentation using a high-level language. Successful completion of this course enables the student to enroll in specific programming languages such as Java, C++, C#, Visual Basic.Net, etc.

Class Meeting Time: T 6:00 PM – 8:40 PM Class Location: Building 27, Room 2715 Credits: 3

**Offered:** FA, SP, SU **Distribution:** Meets AA General Education Electives, Mathematics requirement.

**Required Textbooks and Instructional Materials:** Starting Out With Python -- Revel (Access Card); Gaddis; 9780137619139; 6th; Pearson; 2023

# **Methods of Evaluation:**

At minimum, the instructor will cover content which aligns with statewide and institutional learning outcomes for the course. The instructor will measure student performance using the following:

Grading Scale:	
90% - 100%	А
87% - 89%	B+
80% - 86%	В
77% - 79%	C+
70% - 76%	С

67% - 69%	D+
60% - 66%	D
0% - 59%	F

Evaluations of student progress towards achieving the stated learning outcomes and performance objectives is the responsibility of the instructor, within the policies of the College and the department. Detailed explanations are included in the course supplementals developed by the instructor for each section being taught.

Student Expectations: Students enrolled in this course can expect the following:

- 1. clearly identified course objectives
- 2. productive class meetings
- 3. a positive learning environment
- 4. opportunities for appropriate student participation
- 5. effective instruction
- 6. positive and appropriate interactions
- 7. assistance with meeting course objectives during and beyond class hours
- 8. evaluation of student performance and appropriate and timely feedback
- 9. clear and well-organized instruction.

# **General Education Student Learning Outcomes:**

- **Critical Thinking**: The student analyzes, evaluates, and, if necessary, challenges the validity of ideas, principles, or data in order to develop informed opinions, probable predictions, or defensible conclusions.
- Information Literacy: The student effectively locates, evaluates, and applies information from a variety of sources.
- Scientific and Mathematical Literacy: The student properly identifies and applies scientific or mathematical principles and methods.

# **Course Learning Outcomes:**

- Develop and design programs of increasing complexity to perform a variety business and computer science related problems.
- Identify and select appropriate data types for specific programming needs.
- Implement sequence, selection, and repetition control structures using appropriate statements.
- Use pseudocode and flowcharting as program design tools.
- Use top down design program design methodology in developing programs.
- Translate algebraic formulas and algorithmic functions into code.
- Make appropriate use of functions in designing programs.
- Use value and variable parameters appropriately in specifying formal parameters.
- Implement selection structures appropriate to the task including nested if/then and switch/case statements.
- Understand the differences in, select the appropriate, and correctly implement iteration structures in programs including do, while and for structures.
- Write programs that process text files for input and output.
- Implement and design appropriately formatted output for various data types.

- Understand and use header files and libraries in programs.
- Use recursion as a programming tool where appropriate.
- Understand the concepts of scope and data hiding as they apply to global and local identifiers and use them appropriately in programs.
- Understand the concept of numeric precision, particularly the limited precision inherent in real data and incorporate this understanding into programs where appropriate.
- Make appropriate use of functions that process numeric and string data.

## Academic Dishonesty Statement:

Pensacola State College is committed to upholding the highest standards of academic conduct. All forms of academic dishonesty, to include plagiarism and cheating, are prohibited. Penalties for academic dishonesty include but are not limited to one or more of the following: the awarding of no credit on the assignment, a reduction in the course grade, or the assignment of a final course grade of F and removal from the course. See the College Catalog for more details: <u>https://pensacolastate.smartcatalogiq.com/en/2023-</u>2024/Catalog/Student-Handbook/Student-Responsibilities/Plagiarism-and-Academic-Cheating

### **Student Email Accounts:**

Pensacola State College provides an institutional email account to all students enrolled in courses for credit. PirateMail is the official method of communication, and students must use PirateMail when communicating with the College. In cases where companion software is used for a particular class, email may be exchanged between instructor and student using the companion software.

#### Flexibility:

It is the intention of the instructor to accomplish the objectives specified in the course syllabus. However, circumstances may arise which prohibit the fulfilling of this endeavor. Therefore, this syllabus is subject to change. When possible, students will be notified of any change in advance of its occurrence.

#### **ADA Statement:**

Students with a disability that falls under the Americans with Disability Act or Section 504 of the Rehabilitation Act, it is the responsibility of the student to notify Student Resource Center for ADA Services to discuss any special needs or equipment necessary to accomplish the requirements for this course. Upon completion of registration with the Student Resource Center for ADA Services office, specific arrangements can be discussed with the instructor.

#### Pirates CARE Student Resource Center:

As a student, you may experience challenges that can interfere with your academic and personal success. These can include things such as basic needs (food, housing, transportation, healthcare, etc.), increased anxiety, depression, substance use, grief, or other stressful experiences. The Pirates CARE Student Resource Center provides free services to students, including emergency aid, campus food pantries, career clothing closets, connections to local resources for basic needs support, and confidential mental health counseling services provided in-person or via telehealth.

You can contact the Pirates CARE Student Resource Center at 850-484-1759 or by email at <u>PiratesCARE@pensacolastate.edu</u>. More information about our services can be found online at <u>www.pensacolastate.edu/PiratesCARE</u>.

For additional 24/7 crisis help, the Crisis Text Line can be accessed by texting "GULF" to 741-741, and the Suicide Lifeline can be reached by phone at 9-8-8.

### **Equity Statement:**

Pensacola State College does not discriminate against any person on the basis of race, color, national origin, sex, disability, age, ethnicity, religion, marital status, pregnancy, sexual orientation, gender identity or genetic information in its programs, activities, and employment. For inquiries regarding the College's nondiscrimination policies, contact the Executive Director of Institutional Equity and Student Conduct, 1000 College Blvd., Building 5, Pensacola, Florida 32504, (850) 484-1759.

#### Security Statement:

Pensacola State College is committed to encouraging all members of the College community to be proactive in personal safety measures. In case of emergency, students should ensure that they are aware of the building exit closest to each of their classrooms, as well as all alternative building exits in case circumstances require using a different route.

#### **Emergency Statement:**

In the case of severe weather or other emergency, the College administration maintains communication with appropriate state and local agencies and makes a determination regarding the cancellation of classes. Notices of cancellation will be made through the College's PSC Alert system and on the College's website.