DOANE UNIVERSITY

Course Overview

Course Title	Programming and Problem-Solving II
Course and Section Number	CMP-146-1
Number of Credits	3 Semester Credits
Term	22/AUTM
Course/Section Dates	08/22/2022 – 10/15/2022
Meeting Time	Class meets on Wednesday's at 6:00PM CDT
Instructor	Steve Millet
Doane Email Address	steven.millet@doane.edu
Textbook Information: (e.g. title, edition, publisher, ISBN)	Title: Python Programming in Context Author: Miller, Ranum, Anderson ISBN-13: 9781284175554 DIGITAL ISBN-13: 9781284175578 ISBN-10: 1284175553 Doane Bookstore: https://www.bkstr.com/doaneuniversitystore/shop/textbooks-and-course-materials
Additional Course Materials	
Course Description	A continuation of IST 145. This course further examines data and procedural abstraction and the design, implementation and analysis of algorithms. Upon completion of this course, the student will have gained experience with the object-oriented paradigm, a more modern program design technique, as an alternative to top-down and structured design. In addition, students will learn basic searching and sorting algorithms, sequential and random access file algorithms, dynamic memory

allocation techniques, and basic data structures such as linked lists and binary trees.

Foundational Area of Knowledge

Course Learning Outcomes/Objectives

1. Understand the software development life cycle.
2. Have a general understanding of software design and charting techniques.
3. Understand how to implement algorithms, as part of the problem solving process.
4. Be familiar with a high level programming language and it's development environment (IDE).
5. Be familiar with the concepts of both sequential and random file access methods.
6. Be able to outline the proper testing procedures that should be followed to assure the accuracy of newly developed software.

Technology Requirements

For the successful use of Canvas please refer to Doane University's minimum computer requirements. This may also include:

- Reliable computer and internet connection
- A web browser (Chrome or Mozilla Firefox)
- Adobe Acrobat Reader (free)
- Word processing software -Microsoft or Google Docs
- Webcam and mic

Syllabus Addendum

Addendum includes information regarding:

- Academic Support
- Military Friendliness & Services
- Study Time
- Credit Hour Definition
- Catalog and Policies

Technological Support

If you are in need of technical assistance, please contact the Service Center at 402-826-8411 or by email at help@doane.edu.

Learning Management System

Canvas: https://doane.instructure.com

Campus Network or Canvas Outage	When access to Canvas is not available for an extended period of time (greater than one entire evening - 6pm till 11pm) you can reasonably expect that the due date for assignments will be changed to the next day (assignment still due by midnight).