|  |  |
| --- | --- |
|  | |
| **Semester:** Fall 2014 | **Instructor:** Anita L Sutton |
| **Class Info:** ITP 100-F01 | **Phone:** (540) 891-3052 |
| **Location/Room: SP 2, Room 235** | **Office Location 1:** FAC 2 |
| **Class Name:** Software Design | **Days at Location 1:** MTuWTh |
| **Class Days/Times:** MW, 12:30pm – 1:45pm | **Office Hours:** Monday: 10:00AM – 11:00AM                          Tuesday: 9:00AM – 9:30AM  12:15pm – 1:00pm                         Wednesday: 10:00AM – 11:00AM                         Thursday: 9:00AM – 9:30am  10:45AM – 12:00PM  Online Hours: Tuesday & Wednesday: 8:00pm – 10:30pm |
| **Class Credits:** 3 | **Instructor E-mail:** asutton@germanna.edu |
| **Course Description:** | |
| Introduces principles and practices of software development. Includes instruction in critical thinking, problem solving skills, and essential programming logic in structured and object-oriented design using contemporary tools. Lecture 3-4 hours per week. | |
| **Textbook and Supplies:** | |
| Myprogramminglab: Access Code: GERM-14894-YJFT-21   Starting Out With Python         by Tony Gaddis, Third Edition, Pearson Publishing, ISBN-10: 0-13-358273-6  Python Integrated Development Environment: IDLE : download from python website: <https://www.python.org/>  USB Drive  Internet Connection | |
| **Learning Outcomes:** | |
| Upon Completion of this course the Student Will Demonstrate the ability to: >Install, Understand, and Use an Integrated Development Environment > Pseudocode Programming Constructs >FlowChart Programming Constructs >Develop Logic Flows >Design Computer Programs  >Program basic problems using Python | |
| **Grading Policy:**  **Graded Assignments:** | |
| * Chapter 1 Exercise: 100 points * Programming Exercises(10):  300 points per exercise = 3000 * Culminating Program and Presentation = 700 points   Total Possible Points = 3800  Each Challenge includes: Psuedo Code, Flow Chart, Working Module  Programming Challenge Point Break down:   * PsuedoCode(10): 100 points per challenge = 1000 points * FlowChart(10): 100 points per challenge = 1000 points * Working Program(10): 100 points per challenge = 1000 points   All Work is due according to timetable on course schedule. No Late Work!  **Germanna Policies: See Blackboard, Course Outline Tab for Binding Germanna Policies.** | |
| **Tentative Course Schedule:** | |
| |  |  |  | | --- | --- | --- | | **Week** | **Chapter** | **Assignment** | | Week 1 Start: August 20 Due: August 27 | Chapter 1 | Read Chapter. Instal IDLE on personal computer Set up myprogramminglab; perform mpl warm-up and chapter 1: All questions Exercises 1 & 2, page 28. Save screen shot of work to text file. Attach Text file to Bb. | | Start: August 27 Due: Sept 3 | Chapter 2 | Read Chapter. Work through exercises in Chapter.  Myprogramminglab , chapter 2. Psuedocode, Flowchart, program Exercise # 3 Land Calculation. Attach files (Psuedocode, Flowchart, program) to Bb Assignment for Chapter. | | Start: Sept 3 Due: Sept 10 | Chapter 3 | Read Chapter. Work through exercises in Chapter. Psuedocode, Flowchart, program Exercise # 4 Roman Numerals  Attach files to Bb Assignment for Chapter.  Myprogramminglab, chapter 3. | | Start: Sept 10 Due: Sept 17 | Chapter 4: | Read Chapter. Work through exercises in Chapter. Psuedocode, Flowchart, program Exercise # 8 Sum of Numbers  Attach files to Bb Assignment for Chapter.  Myprogramminglab for Chapter. | | Start: Sept 17 Due: Oct 1 | Chapter 5 | Read Chapter. Work through exercises in Chapter. Psuedocode, Flowchart, program Exercise # 12 Max of 2 values.  Attach files to Bb Assignment for Chapter.  Myprogramminglab for Chapter. | | Start: Oct 1 Due: Oct 8 | Chapter 6 | Read Chapter. Work through exercises in Chapter. Psuedocode, Flowchart, program Exercise #6 & #9: Average of Numbers with Exception Handling.  Attach files, including numbers.txt file to Bb Assignment for Chapter.  Myprogramminglab for Chapter. | | Start: Oct 8  Oct 13 Internet Class Only!  Due: Oct 22 | Chapter 7 | Read Chapter. Work through exercises in Chapter. Psuedocode, Flowchart, program Exercise # 8 name search, using datafile download from textbook website.  Attach files to Bb Assignment for Chapter.  Myprogramminglab for Chapter. | | Start: Oct 22 Due: Oct 29 | Chapter 9 | Read Chapter. Work through exercises in Chapter.  Watch Video: The CapitalQuiz Problem Psuedocode, Flowchart, program Exercise # 2 Capital Quiz  Attach files, including data file to Bb Assignment for Chapter.  Myprogramminglab for Chapter. | | Start: Oct 29 Due: Nov 12 | Chapter 10 | Read Chapter. Work through exercises in Chapter.  Watch Video: The Pet Class Psuedocode, Flowchart, program Exercise # 1 Pet Class  Attach files to Bb Assignment for Chapter.  Myprogramminglab for Chapter | | Start: Nov 12 Due: Nov 19 | Chapter 11 | Read Chapter. Work through exercises in Chapter.  Watch Video: The Person and Customer Classes Psuedocode, Flowchart, program Exercise # 3 Person and Customer Classes.  Attach files to Bb Assignment for Chapter.  Myprogramminglab for Chapter | | Start: Nov 19  November 26 Thanksgiving Break, no Classes. Due: Dec 3 | Chapter 13 | Read Chapter. Work through exercises in Chapter. Psuedocode, Flowchart, program Exercise # 1 Name and Address  Attach files to Bb Assignment for Chapter.  Myprogramminglab for Chapter | |  |  |  | | Final Presentations:  Due: Dec 8 | Present Culminating Program to Class | Culminating Program and Presentation.  No Late Work, no excuses. | | |

|  |
| --- |
| **Syllabus Subject to Change** |