Kaskaskia College Syllabus CITP 155

College Mission Statement: Kaskaskia College is committed to life-long student learning and to providing quality comprehensive education.

COLLEGE POLICIES AND INFORMATION (College Policies and Information Link)

Course Name: Programming I (CITP)

Course Number: 155

Credit Allocation: 3 Credit Hours, 2 Lecture Hours, 2 Lab Hours

IAI Number: N/A

Course Description (as stated in current catalog): This course will introduce students to programming languages supported by Visual Studio suite and Python programming languages. Course will provide students with knowledge for performing numerical analysis. Students will learn how to develop web-based programs and applications for business purposes.

Prerequisites: N/A

Major Topics:

- 1. Software Development Life Cycle
- 2. Installation of IDEs
- 3. Working in IDEs
- 4. Object-Oriented Programming
- 5. Code Syntax
- 6. Debugging
- 7. Data Types
- 8. Variables
- 9. Control Structures
- 10. File Handling
- 11. Database Connectivity

Methods of Evaluation:

- 1. Homework/Portfolio
- 2. Labs
- 3. Projects/Presentations
- 4. Exams

Course Student Learning Outcomes (SLO):

- 1. Demonstrate the ability to install development environments and supporting elements.
- 2. Operate the Visual Studio IDE.
- 3. Write correct coding syntax for multiple programming languages.
- 4. Employ the use of functions, classes, methods, namespaces.

- 5. Employ the use of variables, data types, control structures.
- 6. Develop web forms.
- 7. Develop application interface forms.
- 8. Employ the use of automated file handling techniques.
- 9. Employ the use of debugging techniques.
- 10. Demonstrate an understanding of the placement of design and development in the Software Development Life Cycle.

Program Student Learning Outcomes:

Network Administration Degree: Demonstrate ability to communicate effectively and work together in a team to achieve success with large scale projects.

Cyber Defense Degree: Demonstrate critical thinking capabilities utilizing problem solving in order to be successful in the field of IST.

Web Design and Application Development Degree: Design and develop web sites and applications which meet or exceed business goals.

Web Design and Application Development Degree: Communicate effectively to ascertain client requirements for the development of web sites and mobile applications.

Database Software Developer Degree: Execute the development life cycle according to best practices. **Information Security Analysis Degree:** Analyze information and data sets with accuracy and effectiveness.

General Education Student Learning Outcomes:

	Place an X in the Boxes that Apply:
	1. Critical Thinking
X	a. Students will be able to apply knowledge to solve problems.
	b. Students will be able to evaluate information.
	c. Students will be able to draw inferences.
	2. Cultural Understanding
	a. Students will be able to recognize and understand diversity.
	3. Computational Skills
Х	a. Students will be able to use the mathematical skills required in their programs of study.
х	b. Students will be able to perform basic computations: addition, subtraction, multiplication,
	division, calculation of percentages and ratios.
	4. Communication
	a. Students will be able to communicate in writing clearly and effectively.
	b. Students will be able to communicate verbally clearly and effectively.
	5. Research Skills
	a. Students will be able to find and evaluate useful and reliable material for research.

Semester, Year: Spring 2021

Class Day(s), Class Time, Class Location: Online

Start and End Dates: January 11, 2021 through May 14, 2021

Instructor Name: Laura Mondy

Office Location: HB-216

Office Phone: Please allow up to 48 hours response time for messages left at 618-545-3354. The best method of communication is to e-mail instructor using the class shell.

Instructor Kaskaskia College Email Address:

Instructors will respond to all email communication within 48 hours unless otherwise communicated by the instructor. KC e-mail address is lmondy@kaskaskia.edu; however, the best method of communication is to e-mail instructor using the class shell.

Text(s)

Powers, L. and Snell, M. (2016). Microsoft Visual Studio 2015. Indianapolis, IN: Sams. ISBN: 978-0-672-33736-9.

Jenkins, B. (2019). Python Programming: A Step-by-Step Guide for Absolute Beginners. ATS Coding Academy and Amazon Kindle Publishing. ISBN: 9781792659416.

Required Student Materials:

Microsoft Word, computer system with minimum 8 GB RAM and 120 GB free hard drive space (Chrome books do not support the required virtual machine for class thus cannot be used), VMWARE Player, dependable Internet connection.

Additional Student References And Their Location:

Canvas classroom shell (https://kaskaskiacollege.instructure.com/login/canvas)

Breakdown Of Course Requirements:

All assignments are worth points; no assignments are weighted.

Course assignments will include labs, projects, presentations, worksheets, and exams. Students are expected to keep all of their graded assignments throughout the duration of the class for reference, and as the basis for subsequent assignments. Students are responsible for making backup copies of their own work.

Other Course Requirements:

Specified written assignments must be in APA format as submitted in Microsoft word format.

Final Grade Determination:

A = 93% - 100%

B = 83% - 92%

C = 73% - 82%

D = 63% - 72%

F = Below 63%

Make-Up Policy (for tests and other course requirements):

Some assignments are time sensitive because other assignments build upon them. Weekly assignments are due each Sunday night by midnight. Initial posts in discussion forums are due on Wednesdays by 9:00 PM so that required responses can be posted by Sunday at midnight. During Midterm and Finals weeks, the deadline for submitting assignments could be earlier than Sunday at midnight.

It is the responsibility of the student to attend class (or log in to the class shell regularly for an online class), remain current with all lessons and assignments, and make necessary arrangements for any missed work. It is also the responsibility of the student to communicate with the instructor when a class will be missed.

Students submitting late work will be assessed a one-point deduction per day for every day the assignment is late. This penalty will be deducted from the points the student earned on the assignment. This could result in a student earning a zero grade for an assignment submitted late, even if the work was completed correctly.

Course Exit Requirements:

N/A

Attendance Policy

It is expected that students will attend class (or log in to the class shell for an online class) regularly and remain current with all lessons and assignments. It is expected that students will notify the instructor when an absence will occur. Ongoing participation is required to be successful in this CIT course. Assignment modules will be released or opened for each week during which the work is to be completed.

Class cancellations due to inclement weather will not have an impact on a class that regularly meets online.

Students who have not attended class (or logged in to the class shell for an online class) and have not completed assignments by the 10th day of the class will be automatically dropped by the instructor.

At the midterm point (the eighth week of class), if a student has a letter grade of F, the student will be automatically dropped by the instructor.

Tentative Course Outline: Course outline is subject to change

Week 1: Installing and Launching Visual Studio IDE

Week 2: IDE Solutions and Projects

Introduction to C# Language

Week 3: IDE Browsers and Explorers

C# Variables C# Functions

Week 4: Debugging Code

C# If Statements
C# Switches

Week 5: Visual Studio IntelliSense

C# Data Types

C# Loops

Week 6: C# Classes

C# Method Overloading

C# Inheritance C# Comments

Week 7: Windows Application Forms

Week 8: Software Development Life Cycle (SDLC)

Week 9: Windows Application Form Group Project

Week 10: Windows Application Form Group Project

Week 11: Installing Python IDE

Introduction to Python

Python Variables
Python Data Types

Week 12: Python Control Structures

Python Functions

Week 13: Python Loops

Python Classes and Objects

Week 14: Python File Handling

Week 15: Individual Python Project

Week 16: Individual Python Project

Spring 2021 Important Dates:

January 18, 2021 – Martin Luther King Jr. Birthday (Campus Closed)

February 15, 2021 – President's Day (Campus Closed)

March 5, 2021 – Mid-Term for 16-Week Classes

March 8-12, 2021 - Spring Break (No Classes)

April 1, 2021 – Professional Growth & Development (No Classes)

April 2, 2021 – Spring Holiday (Campus Closed)

April 30, 2021 – Last Day to Withdraw from 16-Week Classes with a W Grade

May 10-13, 2021 – Semester Examinations

May 14, 2021 – Grades Due by 1 PM