

Montgomery County Community College
 CIS 216
 Computer Science Capstone
 3-2-2

COURSE DESCRIPTION:

This final capstone course will bring together students to work in teams designing and building a significant project over the course of the semester. Students will learn about collecting user requirements, project management and team organization, processes and tools. Students will also work on building a portfolio, crafting a professional resume, and defining a strategy to advance their career post course. Professional skills, such as ethical conduct, interviewing, collaboration, teamwork and communication skills, will be discussed and practiced. It is recommended that this course be taken in the final semester of study.

REQUISITES:

Previous Course Requirements

CIS 111B – Object Oriented Programming with a grade of “C” or better

Previous or Concurrent Course Requirements

CIS 245 – Database Management Systems using SQL or CIS 246 – Data Integration for Web Applications with a grade of “C” or better

CIS 151 – Systems Analysis and Design with a grade of “C” or better

Upon successful completion of this course, the student will be able to:

LEARNING OUTCOMES	LEARNING ACTIVITIES	EVALUATION METHODS
1. Execute appropriate application design and development processes and methodologies through a hands-on project.	Assigned Reading Lecture Discussion Hands-On Lab Exercises Homework Assignments Group Projects Projects	Project Presentation Final Project
2. Explain Information Technology career path options and how they integrate and support organizations.	Assigned Reading Lecture Discussion Homework Assignments Group Projects Projects	Quiz Final Project
3. Examine ethical issues related to a career in Information Technology.	Assigned Reading Lecture Discussion Homework Assignment Case Studies	Ethics Project

LEARNING OUTCOMES	LEARNING ACTIVITIES	EVALUATION METHODS
4. Develop a personal portfolio reflective of employment interests.	Assigned Reading Lecture Discussion Homework Assignments Projects	Portfolio Projects Final Portfolio
5. Develop a professional resume along with job seeking skills and strategies.	Assigned Reading Lecture Discussion Homework Assignments	Resume Project Career Building Assignments

At the conclusion of each semester/session, assessment of the learning outcomes will be completed by course faculty using the listed evaluation method(s). Aggregated results will be submitted to the Associate Vice President of Academic Affairs. The benchmark for each learning outcome is that *70% of students will meet or exceed outcome criteria*.

SEQUENCE OF TOPICS:

1. Explanation and discussion of class project.
2. Design of applications and identification of appropriate technology and implementation considerations.
3. Development of applications and other artifacts as part of the final class project.
4. The Information Technology Profession:
 - a. Industry overview
 - b. Ethical considerations and practices within the profession
 - b. Careers options
 - c. Employment opportunities
 - d. Professional resume development
 - e. Job search and career building skills / Best Practices
 - f. MCCC career resources
5. Developing your personal portfolio
6. Suggestions for further study

LEARNING MATERIALS:

No textbook required. OEM resources will be developed.

Other learning materials may be required and made available directly to the student and/or via the College's Libraries and/or course management system.

COURSE APPROVAL:

Prepared by: Anil Datta

Date: 11/10/2015

VPAA/Provost or designee Compliance Verification:

Victoria L. Bastecki-Perez, Ed.D.

Date: 12/2015

Revised by: Marie Hartlein and Matt Krause

Date: 10/1/2019

Interim VPAA or designee Compliance Verification:

Gloria Oikelome, Ed.D.

Date: 2/26/2020

Prepared by: Mathew Krause and Marie Hartlein

Date: 11/08/2022

VPAA or designee Compliance Verification:

Date: 2/22/2023



This course is consistent with Montgomery County Community College's mission. It was developed, approved and will be delivered in full compliance with the policies and procedures established by the College.

