Miami Dade College

Course Description

CGS1060C | Introduction to Computer Technology & Applications | 4.00 credits

This course provides the technology skills required for personal, academic and professional success. Students will learn essential computing concepts and skills including mobile productivity, cloud services, security, ethics, general programming concepts, email, web, operating systems, and the use of an office suite. The course satisfies the College's computer competency requirement.

Course Competencies:

Competency 1: The student will demonstrate general knowledge of computing concepts/skills by:
1. Comparing the different types of computers (desktop, laptop, tablet, smartphone, etc.)
2. Describing the hardware components of a personal computer including various types of storage solutions and input/output devices
3. Identifying common types of computer application software (word processing, spreadsheets, databases, accounting, etc.) and their uses
4. Maximizing, minimizing, restoring, moving, navigating through folders and subfolders, and finding files
5. Creating, renaming, copying, moving, deleting, compressing, and extracting files and folders
6. Explaining the role of the internet and identifying some of its services (web, email, cloud computing, social media
7. Describing the use of technologies used across industries, such as healthcare, financial services, and education (e.g., Internet of Things (IoT), artificial intelligence (AI), augmented reality and virtual reality (AR/VR))
8. Demonstrating an understanding of the importance of staying informed about technological developments, engaging in lifelong learning, and upskilling to adapt to the evolving technological landscape

Competency 2: The student will demonstrate proficiency using the web and web browsers by:
1. Defining the elements of and navigating to web URLs
2. Using a search engine effectively to locate a variety of reliable sources
3. Identifying various types of e-commerce services, such as Business-to-Business (B2B), Business-to-Consumer(B2C), Consumer-to-Consumer (C2C), etc
4. Saving a web address as a favorite or bookmark for later reference and saving web content/browsing history (cache, cookies, etc.) to a computer
5. Configuring a web browser

Competency 3: The student will demonstrate an understanding of cloud computing by:
1. Demonstrating an understanding of foundational cloud computing characteristics: on-demand self-service, broad network access, resource pooling, rapid elasticity, and measured service
2. Comparing the most common service models and deployment models
3. Discussing how cloud services are used in various industries

Competency 4: The student will demonstrate an understanding of using mobile devices by:
1. Utilizing essential mobile apps that provide real-time information for everyday use, such as applications for time management, fitness, note-taking, and productivity
2. Using the various functions available on digital voice assistants
3. Configuring a mobile device to increase privacy and security

Competency 5: The student will demonstrate an understanding of cybersecurity by:
1. Demonstrating an understanding of foundational cybersecurity principles: confidentiality, integrity, and availability
2. Describing potential cyber threat scenarios that may occur while using computing devices

3. Identifying a range of threats to computer networks, such as hacking, DDoS attacks, malware, and other potential security risks. d)Identifying various practices to safeguard computing devices against security threats

Competency 6: The student will demonstrate an understanding of the role and significance of data by:
1. Defining data and describing how data is stored in a relational database
2. Identifying standard relational database management systems and describing the need for big data solutions
3. Discussing how databases are used in many daily transactions and how users query those databases. d) Identifying how data is collected by various organizations and discussing how that data is used for insights and decision-making (business intelligence, data analytics, etc.)

Learning Outcomes:
- Use quantitative analytical skills to evaluate and process numerical data
- Formulate strategies to locate, evaluate, and apply information
- Create strategies that can be used to fulfill personal, civic, and social responsibilities
- Demonstrate knowledge of ethical thinking and its application to issues in society
- Use computer and emerging technologies effectively