



Alabama Community College System

Course Number: CIS/DPT 149

Course Title: Digital Literacy

I. Digital Literacy — 3 Credit Hours

II. Course Description

This course is designed for individuals with little to no prior experience with digital technologies. By the end of the course, students will have a solid understanding of the key concepts and skills related to digital literacy, as well as the confidence to use digital technologies effectively and ethically in their personal and professional lives. Students will learn about the various types of cybersecurity threats, such as malware, phishing, and social engineering attacks and how to avoid digital attacks. The course will help prepare students for the IC³ certification.

III. Prerequisite/Corequisite

Determined by college unless stated otherwise

IV. Textbook

Due to the varied selection of quality college-level textbooks, each college will select the textbook needed to meet the requirements of this course.

V. Course Learning Outcomes

By the end of the course, students will be able to:

- 1) Identify the basic components of technology and their functions.
- 2) Evaluate the impact of digital technologies on society and culture.
- 3) Create, edit, organize, and manage digital information effectively.
- 4) Communicate and collaborate effectively using digital tools and platforms.
- 5) Identify and apply safety and security measures to protect digital devices and information in an ethical manner.

VI. Course Outline of Topics

1. Module A-Basic Component

- Explain the parts of an information system: people, procedures, software, hardware, data, and the Internet.
- Distinguish between system software and application software.
- Differentiate between the kinds of system software programs.
- Define and compare general purpose, and specialized, and mobile applications.
- Identify the types of computers and the five types of personal computers.

- Describe the different types of computer hardware, including the system unit, input, output, storage, and communication devices.
- Define data and describe document, worksheet, database, and presentation files.
- Explain computer connectivity, the wireless revolution, the Internet, cloud computing and IoT.

2. Module B-Impact of Digital Technologies

- Explain the origins of the Internet and the web.
- Explain how to access the web using providers and browsers.
- Compare different web utilities including filters, file transfer utilities, and Internet security suites.
- Compare different Internet communications, including social networking, blogs, microblogs, webcasts, podcasts, wikis, e-mail, text messaging, instant messaging.
- Describe search tools, including search engines, and specialized search engines.
- Evaluate the accuracy of information presented on the web.
- Identify electronic commerce including B2C, C2C, B2B, and security issues.
- Describe cloud computing, including the three-way interaction of clients, Internet, and service providers.
- Discuss the Internet of Things (IoT) and the continuing development of the Internet to allow everyday objects to send and receive data.

3. Module C-Manage Digital Information

- Distinguish between primary and secondary storage.
- Identify the important characteristics of secondary storage including media, capacity, storage devices, and access speed.
- Define solid-state storage including solid-state drives, flash memory cards, and USB drives.
- Describe hard-disk platters, tracks, sectors, cylinders, and head crashes.
- Compare performance enhancements including disk caching, RAID, hybrid drives, file compression, and file decompression.
- Define optical storage including compact discs, digital versatile discs, and Blu-ray discs.
- Compare internal, external, and network drives.
- Define cloud storage and cloud storage services.
- Describe mass storage, mass storage devices, enterprise storage systems, and storage area networks.

4. Module D-Communication and collaboration

- Explain connectivity, the wireless revolution, and communication systems.
- Describe wireless and physical communication channels.
- Differentiate between connection devices and services including cellular, dial-up, DSL, cable, and satellite.
- Describe data transmission factors, including bandwidths and protocols.
- Define networks and key network terminology including network interface **cards**

and network operating systems.

- Describe different types of networks, including local, home, wireless, personal, metropolitan, and wide area networks.
- Describe network architectures, including topologies and strategies.
- Explain the organization issues related to Internet technologies and network security.
- Describe benefits and functions of collaboration tools.

5. Module E-Safety and Security

- Describe the impact of large databases, private networks, the Internet, and the web on privacy.
- Discuss online identity and the major laws on privacy.
- Discuss cybercrimes including identity theft, Internet scams, data manipulation, ransomware, and denial of service.
- Describe social engineering and malicious software, including crackers, malware, viruses, worms, and Trojan horses.
- Discuss malicious hardware, including zombies, botnets, rogue Wi-Fi networks, and infected USB flash drives.
- Detail ways to protect computer security including, restricting access, encrypting data, anticipating disasters, and preventing data loss.
- Discuss computer ethics including copyright law, software piracy, digital rights management, the Digital Millennium Copyright Act as well as cyberbullying, plagiarism and ways to identify plagiarism.

VII. Evaluation and Assessment

Grades will be given based upon A = 90 – 100%, B = 80 – 89%, C = 70 – 79%, D = 60 – 69%, and F = below 60%.

VIII. Attendance

Determined by college unless stated otherwise.

IX. Statement on Discrimination/Harassment

It is the official policy of the Alabama Community College System and entities under its control, including all Colleges, that no person shall be discriminated against on the basis of any impermissible criterion or characteristic, including, without limitation, race, color, national origin, religion, marital status, disability, sex, age, or any other protected class as defined by federal and state law. (ACCS Policies 601.02 and 800.00)

X. Americans with Disabilities

The Rehabilitation Act of 1973 (Section 504) and the Americans with Disabilities Act of 1990 state that qualified students with disabilities who meet the essential functions and academic requirements are entitled to reasonable accommodations. It is the student's responsibility to provide appropriate disability documentation to the College.