

Course discipline/number/title: COMP 1112: Introduction to Information Technology**A. CATALOG DESCRIPTION**

1. **Credits:** 3
2. **Hours/Week:** 3
3. **Prerequisites (Course discipline/number):** None
4. **Other requirements:** None
5. **MnTC Goals (if any):** Goal 9/ Ethical and Civic Responsibility

B. COURSE DESCRIPTION This course introduces fundamental computing concepts, including computer hardware, software, networking, internet usage, cybersecurity, and ethical/political considerations. Students will gain practical experience with operating systems, file management, and productivity software applications. The course emphasizes foundational knowledge relevant to various technology-related fields and prepares students for further studies in IT. A key focus of this course is the examination of the societal impact of technology, including ethical dilemmas, privacy concerns, and the political implications of technological advancements. This course is designed as a general education course for all learners, regardless of their career choice. This course enhances the learner's knowledge and understanding of computers and their awareness of how computers impact their lives. Keyboarding skills are recommended.

C. DATE LAST REVISED (Month, year): March, 2024

D. OUTLINE OF MAJOR CONTENT AREAS:

1. Computer Hardware
 - a) Introduction to Computer Systems
 - b) System Components (CPU, Memory, Storage)
 - c) Input/Output Devices
 - d) Hardware Selection and Upgrades
2. Computer Software
 - a) Operating System Fundamentals
 - b) Application Software (Types and Uses)
 - c) Software Installation and Management
 - d) Open Source vs. Proprietary Software
3. Operating Systems
 - a) OS Functions and User Interfaces
 - b) File Management (Creating, Saving, Organizing)
 - c) System Configuration and Maintenance
 - d) Introduction to Different Operating Systems (Windows, macOS, Linux)
4. Networking and the Internet
 - a) Network Basics (Types, Topologies)
 - b) Internet and World Wide Web
 - c) Web Browsing and Search Engines
 - d) Email and Online Communication
 - e) Cloud Computing Fundamentals
5. Basics of Data?
6. Cybersecurity and Data Privacy
 - a) Security Threats and Vulnerabilities
 - b) Malware and Antivirus Software
 - c) Data Privacy and Protection
 - d) Best Practices for Online Safety
7. Digital Literacy, Ethics, and the Politics of Technology
 - a) Responsible Technology Use
 - b) Digital Citizenship and Netiquette
 - c) Intellectual Property and Copyright
 - d) Ethical Considerations in Computing (e.g., AI ethics, algorithmic bias)
 - e) The Political Impact of Technology (e.g., surveillance, disinformation, internet governance)

D. OUTLINE OF MAJOR CONTENT AREAS: Continued. . .

- f) Social Implications of Technology (e.g., accessibility, digital divide, impact on labor)
- 8. Productivity Software Applications
 - a) Word Processing Fundamentals (Document Creation and Editing)
 - b) Spreadsheet Basics (Data Entry, Formulas, Functions)
 - c) Presentation Software (Creating and Delivering Presentations)
 - d) Collaboration Tools and Platforms
 - e) Databases
- 9. Introduction to IT Concepts
 - a) IT Career Paths and Opportunities
 - b) IT Industry Trends and Emerging Technologies
- 10. Current Issues and Trends in Computing
 - a) Artificial Intelligence and Machine Learning
 - b) Internet of Things (IoT)
 - c) Big Data and Analytics
 - d) The Future of Computing

E. LEARNING OUTCOMES (GENERAL): The student will be able to:

- 1. Define and use basic computer and technology terminology.
- 2. Identify ethical, legal, and security issues related to the use of computers and networks.
- 3. Demonstrate basic proficiency in operating system functions, including file management.
- 4. Use productivity software applications to create and edit documents, spreadsheets, and presentations.
- 5. Explain basic networking concepts and demonstrate effective internet usage skills.
- 6. Describe the different types of computer hardware and software components.
- 7. Discuss current trends and emerging technologies in the computing field.
- 8. Identify potential career paths and certifications in the IT field (e.g., CompTIA ITF+ and A+).
- 9. Demonstrate an understanding of cybersecurity best practices and data privacy principles.
- 10. Analyze the ethical, social, and political implications of technological advancements.
- 11. Evaluate the impact of technology on individuals, communities, and society.

F. LEARNING OUTCOMES (MNTC):

Goal 9/Ethical and Civic Responsibility: The student will be able to:

- 1. Examine, articulate, and apply their own ethical views.
- 2. Analyze and reflect on the ethical dimensions of legal, social, and scientific issues.
- 3. Identify ways to exercise the rights and responsibilities of citizenship.

G. METHODS FOR EVALUATION OF STUDENT LEARNING: Methods may include but are not limited to:

- 1. Tests
- 2. Lab Exercises
- 3. Programming Assignments
- 4. Comprehensive Final Exam

H. RCTC CORE OUTCOME(S) This course contributes to meeting the following RCTC Core Outcome(s)
Critical Thinking. Students will think systematically and explore information thoroughly before accepting or formulating a position or conclusion.

I. SPECIAL INFORMATION (if any): None