SOPHIA Learning

CS1001: Introduction to Information Technology (3 semester credits)

COURSE DESCRIPTION
Sophia's Introduction to Information Technology course provides students with an overview of information systems including hardware and software components, networking, database management, and issues related to privacy, security and ethics. Students will learn how computers represent, store, and process information and how businesses and organizations use technology and information systems to make decisions.

Course Effective Dates: January 2020 - Present

Prerequisite(s): Lower division baccalaureate/associate degree category – no prerequisites

Length of course: This is a self-paced course. Students have 60 days with an additional 30 day extension (if needed) to complete the course.

ACECREDIT® Recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in introduction to information technology and basic computing (12/19).

LEARNING OUTCOMES
Upon completion of the course, the student will be able to:

1. Identify major internal and external computer hardware
2. Differentiate between type of software, including sub-classifications of application software
3. Describe the purpose and function of operating systems, including commercial, open-source, and mobile operating systems
4. Identify essential elements of the Microsoft Windows operating system
5. Demonstrate how to troubleshoot common problems in an operating system
6. Identify characteristics of a database, and differentiate common database types, including flat file and relational databases
7. Describe common network components, including hardware and software
8. Compare and contrast various network types, including Internet, Intranet, WAN and LAN
9. Apply appropriate HTML tags to represent data (text, hyperlink, image, etc.) in website development
10. Describe copyright, trademark, and intellectual property rights and its ramifications on electronic media
11. Apply a professional code of ethics in the field of computing
12. Identify activities and tools used by IT professionals to maintain and evolve secure information systems
13. Identify the main phases of a software development cycle and various software development methodologies
14. Define the roles and responsibilities within the computing profession, including computer scientists, software engineers, and IT specialists
15. Describe main technological trends and advances in computer science for the future

OUTLINE OF MAJOR CONTENT AREAS
- Computers and their Functions
- Computer Hardware and Software
- Data Storage and Memory
- Operating Systems
- The Microsoft Windows Operating System
- Productivity Software
- Designing a Database
- Data Warehousing
- Computer Networks
- Network Security
- Website Development
- Computer Addiction
- Benefits and Risks of Social Media
- Ethical and Legal Considerations
- Professional Code of Ethics
- Information Technology in the Workplace
- Usability
- Process Automation
- Software Development Life Cycle
- Software Development Methodologies
- Professional Careers in Information Technology
- Future Trends and Advancements in Computing

GRADING

This is a pass/fail course. You are required to complete all 12 formative and 4 summative assessments with an overall course average of 70% or better.