

NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY ITE 100 – INTRODUCTION TO INFORMATION SYSTEMS (3 CR.)

Course Description

Covers the fundamentals of computers and computing and topics which include impact of computers on society, ethical issues, and terminology. Provides discussion about available hardware and software as well as their application. Lecture 3 hours per week.

General Course Purpose

This course provides a comprehensive foundation in general information technology concepts. This course can be used as a general elective in any program that the college offers.

Course Prerequisites/Corequisites

Prerequisite: none

Course Objectives

Upon completing the course, the student will be able to:

- a) Identify common applications of computers in business and industry
- b) Distinguish between the Internet and the World Wide Web and describe the features of each
- c) Describe the functions of the main hardware components of a computer system
- d) Distinguish between application software and system software, and identify examples of each type
- e) Identify the main components and applications of communications systems
- f) Identify the main components and applications of information and data management systems
- g) Describe the main steps in both system development and program development
- h) Identify and describe careers in the Information Technology industry
- i) Discuss ethical issues and how computers have made an impact on society

Major Topics to be Included

- a) Internet Concepts
- b) Hardware
- c) Software
- d) Mobile Devices and Applications
- e) Ethics, Security, and Privacy
- f) Communication and Networks
- g) Information and Data Management
- h) Information Systems and Program Development
- i) Information Technology Careers
- j) Special Topics

Student Learning Outcomes

Internet Concepts

- a) Examine the impact of the Internet on modern society
- b) Discuss the purpose of the World Wide Web (WWW)
- c) Evaluate the different aspects of e-commerce

Hardware

- a) Classify the kinds of input devices

- b) Identify the different types of output devices
- c) Explain the purpose of storage devices
- d) Describe processor components
- e) Distinguish between primary storage and secondary storage

Software

- a) Distinguish between system software and application software
- b) Recognize programming processes and programming languages

Mobile Devices and Applications

- a) Identify common mobile devices
- b) Explain what is meant by a mobile platform environment

Ethics, Security, and Privacy

- a) Employ ethics when engaging with information systems
- b) Discuss how to set-up and maintain a secure environment
- c) Discuss privacy issues

Communication and Networks

- a) Explain the components of communication systems
- b) Describe communication lines
- c) Recognize communication devices
- d) Distinguish among PANs, LANs, MANs and WANs
- e) Define and explain the wireless revolution

Information and Data Management

- a) Explain database characteristics
- b) Explain the purpose of a database management system
- c) Explain the purpose of a management information system
- d) Evaluate big data
- e) Describe data mining
- f) Translate data analytics
- g) Explain the importance of business intelligence
- h) Clarify knowledge management

Information Systems and Program Development:

- a) Describe the system development life cycle
- b) Describe the program development life cycle
- c) Describe system development and design tools
- d) Describe program development design tools
- e) Identify the various programming languages

Information Technology Careers and Certifications

- a) Distinguish among the different IT careers
- b) Recognize the different types of certifications

Special Topics (optional)

- c) Evaluate future trends

Required Time Allocation per Topic

In order to standardize the topics of ITE 100 so that a course taught at one campus is equivalent to the same course taught at another campus, the following student contact hours per topic are required. Each syllabus should be created to adhere as closely as possible to these allocations. Of course, the topics do not have to be taught sequentially. There are normally 45 student-contact-hours per semester for a three credit course. (This includes 15 weeks of instruction and does not include the final exam week so $15 * 3 = 45$ hours. Sections of the course that are given in alternative formats from the standard 16 week section still meet for the same number of contact hours.) The final exam time is not included in the time table. The category, Other Optional Content, leaves ample time for an instructor to tailor the course to special needs or resources.

Topic	Time in Hours	Percentages
Internet Concepts	3	7%
Hardware	6	13%
Software	6	13%
Mobile Devices and Applications	3	7%
Ethics, Security, and Privacy	6	13%
Communication and Networks	6	13%
Information and Data Management	6	13%
Information Systems and Program Development	3	7%
Information Technology Careers and Certifications	3	7%
Other Optional Content	3	7%
Total	45	100%