NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY
ITE 152 – INTRODUCTION TO DIGITAL AND INFORMATION LITERACY AND COMPUTER APPLICATIONS (3 CR.)

Course Description

Develops understanding of digital and information literacy. Introduces basic computer concepts in hardware, software, cyber, cloud, database, and operating systems. Includes hands-on experience developing word processing, spreadsheet and presentation documents. Evaluates the reliability of sources. Covers creating a simple web page. Examines topics such as social, legal, and ethical issues. **This is a UCGS transfer course.** Lecture 3 hours per week.

Please Note: Credit will only be awarded for one of the following courses: ITE 115, ITE 119, or ITE 152.

General Course Purpose

This introductory course is designed to develop the students' understanding of digital information literacy through utilizing both lecture and hands-on exercises. Students will be introduced to basic computer concepts in hardware, software, cyber security, cloud computing, database principles, operating systems and web development. Students learn online techniques to search, evaluate, validate, and cite information. Hands-on experience includes creating web pages along with word processing, spreadsheet and presentation graphics computer applications. Additional lectures examine social, legal, ethical issues including privacy, intellectual property, emerging technologies and the role computers play across professional areas of expertise.

Course Prerequisites/Corequisites

None.

Course Objectives

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

Civic Engagement
- Communicate information legally and ethically using a variety of channels directed at a range of audiences

Critical Thinking
- Demonstrate the ability to determine the nature and extent of the information needed.
- Demonstrate the ability to identify and evaluate information for credibility, currency, reliability, validity, accuracy, usefulness, relevance, and biases. (For example: CRAAP model)
- Demonstrate the ability to distinguish between assumption and fact.
- Demonstrate the ability to incorporate information literacy skills into one's own knowledge base and work.

Written Communication
- Demonstrate the ability to collaborate with other students to manage information using information technology
- Demonstrate competency in creating and delivering a presentation, as well as linking and embedding data in a presentation.

Quantitative Literacy

- Demonstrate the use of logical formulas to reach a better understanding of the importance of becoming a logical thinker in the world of computers or the 21st century.

Professional Readiness
- Recognize the importance of an Internet presence
- Demonstrate the use of productivity using application software
- Explain the importance of Cyber and Information Security
- Identify the role the computer plays across professional areas of expertise

Scientific Literacy
- Demonstrate the use of scientific or mathematical formulas to have a better understanding how a computer can assist with computations.

Current Software Applications
- Demonstrate the use of formatting for research papers using a writing style guide. (For example: APA or MLA)
- Demonstrate the creation of various documents using word processing formatting and editing tools
- Develop worksheets and charts incorporating formulas, functions, and formatting
- Apply spreadsheet design principles to worksheets, tables and utilize data analysis
- Demonstrate the use of conditional, logical, and cell referencing using spreadsheet software
- Create and modify presentations enhancing the presentation with pictures, shapes, media and animation
- Identify and describe database key principles: primary key, tables, fields, records, row, creating, modifying and maintaining

Operating Systems
- Recognize the different versions and capabilities of multiple operating systems
- Demonstrate the use of an operating system, i.e. create folders, create nested folders, save files and organize files

Basic Computer Concepts
- Explain the importance of the history of computers
- Define and identify computer hardware and software
- Recognize the specifications for purchasing PC hardware and software
- Describe the benefits of protecting systems while online or working remotely
- Describe computing systems and how they are used to support and promote organizational goals
- Recognize how computers are used in different careers
- Define key terms: router, modem, app, input device, output device, storage device

Digital and Information Literacy
- Define, understand, and explain the need and impact of information literacy in today's society
- Self-assess and identify information needs
- Identify different types of information sources
- Develop and use search strategies to effectively perform searches to acquire sources from various platforms
- Apply techniques to fact-check and evaluate information and sources, i.e. CRAAP test
- Describe intellectual property, copyright, and fair use, and how they relate to using information legally and ethically
- Recognize various forms of plagiarism and utilize skills and techniques to avoid plagiarism
- Distinguish between credible and non-credible digital sources

Cyber Awareness and Information Security

- Define cyber security and explain why it is important, personally, on the Internet, for the computer and for mobile devices
- Describe the challenges of securing information
- Identify types of attackers that are common today
- Describe the different types of attacks
- Define different types of defenses

Web Technologies
- Identify introductory web design and/or development concepts
- Identify top level domain (i.e. .gov, .edu, .com, .net, .org) use and purpose
- Describe what responsive design means and explain HTML, CSS, Javascript and tags as it relates to developing websites
- Define hosting and publishing in web development
- Develop a simple webpage using a text editor or html editor that contains basic tags, such as title, headers, links, multimedia and images
- Explain the importance of web development in world technology and the importance of having a basic knowledge of website creation

Cloud Computing and Emerging Technologies
- Define cloud computing
- Explain the Cloud Computing Stacks
- Identify advantages and disadvantages of Cloud Computing
- Define the Internet of Things (IoT)
- Explain the current version of global Cellular standard
- Define Blockchain and the components of a block within every blockchain
- Discuss how blockchain could be used within different types of industry
- Compare Progressive Web Apps and Traditional Web Apps
- Compare the Internet to Internet2
- Discuss the different aspects of Artificial Intelligence (AI)
- Identify other emerging technologies
- Give examples of how data science incorporates technology
- Identify Careers in Computers

Major Topics to be Included

- Current Software Applications
- Operating Systems
- Basic Computer Concepts
- Digital and Information Literacy
- Cyber Awareness and Information Security
- Web Technologies
- Cloud Computing and Emerging Technologies