

Course Content and Outcomes Guides (CCOG)

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Course Content and Outcomes Guide for CIS 120 Effective Spring 2019

Course Number:
CIS 120

Course Title:
Computer Concepts I

Credit Hours:
4

Lecture Hours:
30

Lecture/Lab Hours:
0

Lab Hours:
30

Special Fee:
\$12.00

Course Description

Introduces computing fundamentals from older, mature technologies through recent and emerging technologies. Utilizes key applications, such as word processing, spread sheet, database, and presentation software, to solve realistic problems. Explores the benefits and risks of the online environment. Recommend: basic computer skills equivalent to CAS 133 or BA 131. Prerequisites: WR 115, RD 115 and MTH 20 or equivalent placement test scores. Audit available.

Intended Outcomes for the course

On completion of the course students should be able to:

- Use technology ethically, safely, securely, and legally.
- Identify and analyze computer hardware, software, and network components.
- Design basic business web pages using current HTML/CSS coding standards.
- Install, configure, and remove software and hardware.
- Use systems development, word-processing, spreadsheet, and presentation software to solve basic information systems problems.
- Apply standard statistical inference procedures to draw conclusions from data.
- Retrieve information and create reports from relational databases.
- Make intelligent computer purchase decisions.
- Analyze compression techniques and file formats to determine effective ways of securing, managing, and transferring data.

Outcome Assessment Strategies

In satisfying the assessments, students must demonstrate at least 3 of the following:

- Service Learning
- Contextual written tasks in or outside of class.
- Written case study analysis.
- Individual or team projects.
- Presentations
- Quizzes and/or examinations.
- In-class interactive role-plays
- Participation
- Self-Assessment

Course Content (Themes, Concepts, Issues and Skills)

Subject Matter: Concepts, Themes, Issues (Topical Areas):
([Themes, Concepts, Issues, Competencies, and Skills](#))

- Hardware
 - Identify categories of computers
 - Identify basic hardware components
 - Discuss how information is processed
- Explore categories of software
 - Identify the role of software
 - Operating system overview
 - Application software overview
 - Productivity Software concepts and uses
 - Word Processing
 - Spreadsheet
 - Summary Statistics
 - Graphing / Charts
 - Functions
 - Database Management Systems (DBMS)
 - Presentation Software
 - Programming Languages
 - Markup Languages (HTML/CSS)
 - Career-Specific Software
 - Proprietary/Commercial vs. Open Source
- Computers and Society
 - Key historical landmarks
 - Careers using computer technology
 - Proprietary/Commercial vs. Open Source
 - Copyrights
 - Ethics
 - Privacy
 - Information accuracy
 - Computers in Daily Life (Work, Education, Entertainment, Home)
- Integration
 - Identify criteria for selecting a computer
 - Integrating hardware and software
 - The Internet/WWW (World Wide Web)
 - Use the Internet as a Research Tool
 - Browsers, email, list serves, bulletin boards
 - Protocols (FTP, HTTP,TCP,IP)
 - Systems Development Concepts and Theoretical Models
 - Waterfall
 - Agile

Related Instruction

Computation

Hours: 20

- Identify and analyze computer hardware, software and network components
- Install, configure and remove software and hardware
- Solve basic information systems problems by applying systems development, word-processing, spreadsheet and presentation software techniques
- Apply standard statistical inference procedures to draw conclusions from data
- Retrieve information and create reports from relational databases.
- Make intelligent purchase decisions
- Analyze compression techniques and file formats to determine effective ways of securing, managing and transferring data.

Direct instruction (+ study time) in discipline-related computations including:

- Calculating numeric conversions between binary, decimal and hexadecimal base numbers related to memory addresses, memory data type representation and media size specifications.
- Using and following standard statistical procedures.
- Solving problems using databases.
- Estimating compression rates, storage capacity, bandwidth, and bus speed.

Student essentials

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