LIBERTY UNIVERSITY

Online · School of Business · Computational Sciences

Introduction to Computing Sciences

CSIS-110

CG Section 8WK 11/08/2019 to 04/16/2020 Modified 05/17/2022

🖥 Course Description

A breadth-first introduction to the computing disciplines, with an emphasis on computer ethics and how computing technology impacts the world. Topics include: computing history; discrete mathematics; computer architecture and organization; algorithm design; languages; compilers; operating systems; applications; networks; databases; intellectual property; privacy; free speech; social consequences; computer crime; and codes of conduct.

Requisites

For information regarding prerequisites for this course, please refer to the Academic Course Catalog (https://catalog.liberty.edu/).

◎ Rationale

This course is an introductory and prerequisite course taught to computer technology students. It touches all computing disciplines, which allows new students to gain a foundational perspective of the entire computer technology curriculum.

📊 Course Learning Outcomes

Upon successful completion of this course, the student will be able to:

A. Demonstrate knowledge of computing through examination(s) and projects.
B. Summarize his or her understanding of ethical issues in computing through examination and in-class discussion.
C. Analyze the local and global impact of computing on individuals, organizations, and society.
D. Recognize the need for an ability to engage in continuing professional development.
E. Apply a biblical worldview to Computing Sciences.

Foundational Skills Learning Outcomes:
Communications and Information Literacy

CIL 1: Discover and evaluate information to accomplish a specific purpose.

CIL 2: Communicate information effectively in the English language, orally and/or through writing for a variety of purposes, using technology when appropriate.

CIL 3: Analyze and assess various forms of information and expression to determine their meaning, employing technology when relevant.

CIL 4: Relate communications and information literacy to participation in God's redemptive work.

📖 Course Resources

Click on the following link to view the required resource(s) for the term in which you are registered: Liberty University Online Bookstore (https://bncvirtual.com/liberty).

Additional Materials for Learning

A. Computer with basic audio/video output equipment
B. Internet access (broadband recommended)
C. Canvas recommended browsers (https://community.canvaslms.com/t5/Canvas-Basics-Guide/What-are-the-browser-and-computer-requirements-for-Canvas/ta-p/66)
D. Microsoft Word
E. HTML Programming Environment – Kompozer Download (http://kompozer.net/) or Notepad++ Download (https://notepad-plus-plus.org/)

≔ Course Assignments

Textbook readings and lecture presentations

Course Requirements Checklist

After reading the Course Syllabus and Student Expectations (https://www.liberty.edu/institutional-effectiveness/student-expectations/), the student will complete the related checklist found in the Course Overview.

Discussions (4)

Discussions are collaborative learning experiences. Therefore, the student is required to create a thread in response to the provided prompt for each discussion. The student will post 1 thread of at least 300 words. The student must then post 2 replies of at least 200 words. For each thread, students must support their assertions with at least 1 scholarly citation in APA format. Any sources cited must have been published within the last five years. Acceptable sources include journal articles, the textbook, the Bible, and other peer-reviewed articles.

Article Review Assignments (3)

The student will review the assigned articles using the provided template. This template includes the bibliographic reference, article objectives and summary, the student's critique of the article, and any questions engendered by reading the article.

These assignments align with CIL 1, 2

CyberScore Lab Assignments (2)

The student will complete labs associated with the course material. Each lab will have specific instructions for tasks and deliverables.

These assignments align with the following FSLOs: CIL 1 and 3

Lab Assignments (4)

The student will complete labs associated with the course material. Each lab will have specific instructions for tasks and deliverables.

These assignments align with the following FSLOs: CIL 1 and 3

Research Paper Assignments (3)

The student will write a research-based paper of at least 6 pages in current APA format that focuses on a career of his or her choice in computer technology. The paper must include at least 5 sources.

Research Paper: Topic Proposal Assignment
The student will submit a short 2-3 sentence description in bullet-point format of the occupation selected for the research paper. The student will use the Research Paper: Topic Proposal Template for submission.

Research Paper: Annotated Bibliography Assignment

Research Paper: Final Assignment

These assignments align with the following FSLOs: CIL 2, 3, and 5

Quizzes (5)

Each quiz will cover the Learn material for the module in which it is assigned as well as the preceding modules. Each exam will be open-book/open-notes and will have a time limit of 30 minutes. Each quiz will contain a variety of multiple-choice and true/false questions.

Quiz: Midterm

The Midterm will cover the Learn material for the first four modules. The quiz will be open-book/open-notes and contain 50 multiple choice questions. The time limit for the exam will be 1 hour and 30 minutes.

These assignments align with the following FSLOs: CIL 3 and 5

Quiz: Final

The Final will cover the Learn material for last four modules. The quiz will be open-book/open-notes and contain 50 multiple choice questions. The time limit f will be 1 hour and 15 minutes.

These assignments align with the following FSLOs: CIL 3 and 5

✔ Course Grading

Course Requirements Checklist	10
Discussions (4 at 50 pts ea)	200
Article Review Assignments (3 at 30 pts ea)	90
Research Paper: Topic Proposal Assignment	10
Research Paper: Annotated Bibliography Assignment	50
Research Paper: Final Assignment	100
CyberScore Lab Assignments (1 at 20 pts, 1 at 30 pts)	50
Lab Assignments (4 at 50 pts ea)	200
Quiz: Midterm	100
Quiz: Final	100
Quizzes (5 at 20 pts ea)	100
Total	**1010**

🏛 Policies

Late Assignment Policy

Course Assignments, including discussions, exams, and other graded assignments, should be submitted on time.

If the student is unable to complete an assignment on time, then he or she must contact the instructor immediately by email.

Assignments that are submitted after the due date without prior approval from the instructor will receive the following deductions:

1. Late assignments submitted within one week after the due date will receive up to a 10% deduction.
2. Assignments submitted more than one week and less than 2 weeks late will receive up to a 20% deduction.
3. Assignments submitted two weeks late or after the final date of the course will not be accepted outside of special circumstances (e.g. death in the family, significant personal health issues), which will be reviewed on a case-by-case basis by

the instructor.

4. Group projects, including group discussion threads and/or replies, and assignments will not be accepted after the due date outside of special circumstances (e.g. death in the family, significant personal health issues), which will be reviewed on a case-by-case basis by the instructor.

Disability Assistance

Students with a disability and those with medical conditions associated with pregnancy may contact Liberty University's Online Office of Disability Accommodation Support (ODAS) at LUOODAS@liberty.edu for accommodations. Such accommodations require appropriate documentation of your condition.   For more information about ODAS and the accommodations process, including how to request an accommodation, please visit https://www.liberty.edu/online/online-disability-accommodation-support/ (https://www.liberty.edu/online/online-disability-accommodation-support/). Requests for accommodations not related to disabilities or pregnancy must be directed to the Registrar's Office, which generally handles medical needs support.

If you have a complaint related to disability discrimination or an accommodation that was not provided, you may contact ODAS or the Office of Equity and Compliance by phone at (434) 592-4999 or by email at equityandcompliance@liberty.edu. Click to see a full copy of Liberty's Discrimination, Harassment, and Sexual Misconduct Policy (https://www.liberty.edu/media/1226/Liberty_University_Discrimination_Harassment_and_Sexual_Misconduct_Policy.pdf) or the Student Disability Grievance Policy and Procedures (http://www.liberty.edu/media/8021/Disability_Grievance_Procedures.pdf).

Course Attendance

In an effort to comply with U.S. Department of Education policies, attendance is measured by physical class attendance or any submission of a required assignment within the enrollment dates of the course (such as examinations, written papers or projects, any discussion posts, etc.) or initiating any communication with one's professor regarding an academic subject. More information regarding the attendance policy (https://nam04.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwiki.os.liberty.edu%2Fdisplay%2FIE%2FOnline%2BAttendance%2Band%2BNon-Attendance&data=02%7C01%7Caccollins%40liberty.edu%7Cd91431fa6ac547056b5408d833029e1a%7Cbaf8218eb3024465a9934a39c97251b2%7C0%7C0%7C637315433613719138&sdata=%2BNBTsPOoXuHAPLflSQRugK7cRSuV6UyC7qD3agf3l2k%3D&reserved=0) can be found in the Academic Course Catalogs (https://nam04.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.liberty.edu%2Findex.cfm%3FPID%3D791&data=02%7C01%7Caccollins%40liberty.edu%7Cd91431fa6ac547056b5408d833029e1a%7Cbaf8218eb3024465a9934a39c97251b2%7C0%7C0%7C637315433613729132&sdata=DjjhMiRBhnF%2B2ZJUC8eBd1OdNb26S9ADukODYsilXlA%3D&reserved=0). Regular attendance in online courses is expected throughout the length of the term. Students who do not attend within the first week of a sub-term by submitting a required academic assignment (such as the Course Requirements Checklist, an examination, written paper or project, discussion post, or other academic activity) will be dropped from the course. Students who wish to re-engage in the course are encouraged to contact Academic Advising to discuss their enrollment options. Students who begin an online course, but at some point in the semester cease attending, and do not provide official notification to withdraw, will be assigned a grade of "FN" (Failure for Non-Attendance (https://nam04.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwiki.os.liberty.edu%2Fdisplay%2FIE%2FUnofficial%2BWithdrawals&data=02%7C01%7Caccollins%40liberty.edu%7Cd91431fa6ac547056b5408d833029e1a%7Cbaf8218eb3024465a9934a39c97251b2%7C0%7C0%7C637315433613729132&sdata=MoMvZdPfza69InuhVHMHAVgu59ZP0Fw45xJTu9PIBrU%3D&reserved=0)). Students wishing to withdraw from courses after the official start date should familiarize themselves with the withdrawal policy.

Grading Scale

A	B	C	D	F
900-1010	800-899	700-799	600-699	0-599

For courses with a Pass/NP final grade, please refer to the Course Grading section of this syllabus for the assignment requirements and/or point value required to earn a Passing final grade.

Add/Drop Policy

The full policy statement and procedures are published in the Policy Directory (https://wiki.os.liberty.edu/display/IE/Dropping+and+Adding+Online+Classes).

Honor Code

Liberty University comprises a network of students, Alumni, faculty, staff and supporters that together form a Christian community based upon the truth of the Bible. This truth defines our foundational principles, from our Doctrinal Statement to the Code of Honor. These principles irrevocably align Liberty University's operational procedures with the long tradition of university culture, which remains distinctively Christian, designed to preserve and advance truth. Our desire is to create a safe, comfortable environment within our community of learning, and we extend our academic and spiritual resources to all of our students with the goal of fostering academic maturity, spiritual growth and character development.

Communities are predicated on shared values and goals. The Code of Honor, an expression of the values from which our Doctrinal Statement was born, defines the fundamental principles by which our community exists. At the core of this code lie two essential concepts: a belief in the significance of all individuals, and a reliance on the existence of objective truth.

While we acknowledge that some may disagree with various elements of the Code of Honor, we maintain the expectation that our students will commit to respect and uphold the Code while enrolled at Liberty University.

Adherence to the principles and concepts established within facilitates the success of our students and strengthens the Liberty community.

The Code of Honor can be viewed in its entirety at http://www.liberty.edu/index.cfm?PID=19155 (http://www.liberty.edu/index.cfm?PID=19155).

📅 Schedule

When	Topic	Notes
Course Overview	Student Acknowledgements	Course Requirements Checklist
	Technology Integration Set-Up	Prepare: Cengage MindTap
Module 1: Week 1	Learn	Read: 2 items Watch: 5 items
	Apply	Discussion: Computer Science Background/Experience Quiz: Intro to Computers and Algorithms Quiz: Lab — Algorithm
Module 2: Week 2	Learn	Read: 2 items Watch: 8 items
	Apply	Research Paper: Topic Selection Assignment Article Review: Moore's Law Assignment Quiz: Computer Organization and Number Systems and Logic Gates Quiz: Lab — Numbering Systems
Module 3: Week 3	Learn	Read: 3 items Watch: 7 items
	Apply	Discussion: Cybersecurity Domain Separation-Simplicity of Design-Minimization CyberScore Lab: DOS Command Line/MAC Terminal Lab Assignment Quiz: Systems Software and Networking

When	Topic	Notes
Module 4: Week 4	Learn	Read: 1 item Watch: 3 items
	Apply	Research Paper: Annotated Bibliography Assignment CyberScore Lab: Computer Security Assignment Quiz: Midterm
Module 5: Week 5	Learn	Read: 2 items Watch: 2 items
	Apply	Discussion: Cybersecurity — Information Hiding-Least Privilege-Modularization Article Review: Influential Business Programming Languages Assignment Quiz: High Level Programming Languages
Module 6: Week 6	Learn	Read: 1 item Watch: 2 items
	Apply	Discussion: Cybersecurity — Layering-Abstraction-Process Isolation CyberScore Quiz: Lab — Python Programming
Module 7: Week 7	Learn	Read: 2 items Watch: 1 item
	Apply	Research Paper: Final Assignment Quiz: E-Commerce, Databases, and Artificial Intelligence
Module 8: Week 8	Learn	Read: 2 items Watch: 2 items
	Apply	Article Review: Future of Computer Technology Assignment Quiz: Final