# Lincoln University

## CS 10 – Introduction to Computer Science
### COURSE SYLLABUS

**Summer, 2025**

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| **Instructor:** | Prof. Michael Talan |
| **Lecture Schedule:** | Tuesday/Thursday, 12:30 PM – 03:15 PM |
| **Credits:** | 3 units / 45 lecture hours |
| **Level:** | Introductory (I) |
| **Office Hours:** | Before and after class, or by appointment |
| | E-mail: matalan@lincolnuca.edu |
| **Textbooks:** | Discovering Computers: Digital Technology, Data, and Devices, 1st Edition, by Misty Vermaat, Susan Sebok, Steven Freund, Jennifer Campbell, Mark Frydenberg, 2018, ISBN-10: 1-337-28510-2 |
| | (*Previous editions are okay.*) |
| **Prerequisites:** | *None* |
| **Last Revision:** | May 22, 2025 |

## COURSE DESCRIPTION

An introduction to the principles and concepts of computer science and its applications. Discussions focus on the use of computers in business and personal lives, computer system basics, computer architecture, hardware, systems and applications software, programming languages, software engineering, data communications, information systems, the history of computing and computer's impact on society. Introduction to the Internet and online information sources. Laboratory on use of computer hardware and software.

## COURSE OBJECTIVES

This course serves as an initiation into the fundamental principles and concepts of computer science and its diverse applications. Students will gain insight into the pivotal role of computers in both professional and personal spheres, encompassing areas such as computer systems, architecture, hardware components, systems and applications software, programming languages, software engineering methodologies, data communication protocols, and information systems. The course will also explore the historical trajectory of computing and its profound societal implications. A significant portion of the curriculum will be dedicated to introducing students to the intricacies of the Internet and online information repositories.

**COURSE LEARNING OUTCOMES**

Upon completion of this course, students will be able to:
1. Understand the concepts of computer system and its applications
   a. *Assessment Activities: Assignments, classroom participation, case studies, quizzes/exams*
2. Understand professional, ethical, legal, security, and social issues and responsibilities in the online platform
   a. *Assessment Activities: Assignments, classroom participation, case studies, quizzes/exams*
3. Understand the impact of computing technologies in a societal context
   a. *Assessment Activities: Assignments, classroom participation, case studies, quizzes/exams*
4. Analyze various use of computing techniques and tools necessary for businesses
   a. *Assessment Activities: Assignments, classroom participation, case studies, quizzes/exams*

**COURSE LEARNING OUTCOMES[1]**

|  | **Course LO** | **Program LO** | **Institutional LO** | **Assessment Activities** |
|---|---|---|---|---|
|  | Understand the concepts of computer system and its applications | PLO 1 | ILO 1a, ILO 7a | Assignments, classroom participation, case studies, quizzes/exams |
|  | Understand professional, ethical, legal, security, and social issues and responsibilities in the online platform | PLO 5 | ILO 3a, ILO 4a | Assignments, classroom participation, case studies, quizzes/exams |
|  | Understand the impact of computing technologies in a societal context | PLO 4 | ILO 1a | Assignments, classroom participation, case studies, quizzes/exams |
|  | Analyze various use of computing techniques and tools necessary for businesses | PLO 4 | ILO 1a | Assignments, classroom participation, case studies, quizzes/exams |

**INSTRUCTIONAL METHODS**

This is a direct classroom instruction course. Lecture method is used in combination with group discussions, case studies, and outside readings, as assigned. The emphasis will be on

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[1] Detailed description of learning outcomes and information about the assessment procedure are available at the Learning Outcomes Assessment section of LU website.

learning by doing. Every student must participate in an intensive classroom activity. Reading, writing, and computer assignments will be given throughout the course. There may be group presentations by students on the project assignments during class. Student's classroom activities will be graded by the level of class participation and attendance.

Assignments and projects require students to actively use resources of the library. Detailed guide to business *resources of the library* as well as the description of Lincoln University approach to *information literacy* are available at the LU Library website (lincolnuca.libguides.com).

**ATTENDANCE**

Students are expected to attend each class session. If you cannot attend a class due to a valid reason, please notify the instructor prior to the class.

**ASSIGNMENTS & QUIZZES**

Written or oral quizzes will be given every week. Students must complete all assignments and take all quizzes, mid-term exam and final exam ON THE DATES DUE. Each assignment is due at the beginning of the following class. You can return your assignments electronically if you desire. Late submission of assignments will be assessed a penalty of 10%. Quizzes are based on the lecture and material in the assignment and will take place at the beginning of the course.

**ASSESSMENT**

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|---|---|---|
| Attendance and classroom activities | every week | 10% |
| Assignments | every week | 10% |
| Quizzes | as scheduled | 10% |
| Mid-term exam | as scheduled | 30% |
| Final exam | as scheduled | 40% |
| Total | | 100% |

There will be no make-up for a missed participation in a classroom activity. No make-up exams will be given unless you have the instructor's prior approval obtained in person before the exam date, with the exception of an extreme emergency. Late assignments will get no credit or reduced credit. **Cheating or plagiarism will result in an "F" grade.**

**GRADING**

Grades will be determined according to the following percentages awarded for completed work:

| 100-93 | 92-90 | 89-87 | 86-83 | 82-80 | 79-77 | 76-73 | 72-70 | 69-67 | 66-60 | 59-0 |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| A | A- | B+ | B | B- | C+ | C | C- | D+ | D | F |

**CLASSROOM POLICY**

- Students are encouraged to participate in group discussions and class activities.
- Students are required to arrive to class on time.
- If a student misses a class, s/he is responsible for getting notes/slide printouts on the material covered from a classmate or the instructor. To avoid distracting noise in class, cellular phones must be turned off or the ringing mode be silenced.
- Questions and comments during the class are welcome.

**SCHEDULE OF TOPICS**

Please read every chapter of the textbook before you come to class.

| Dates | Topics | Chapters |
|-------|--------|----------|
| June 10 | Introducing Today's Technologies | 1 |
| June 12 | Connecting and Communicating Online | 2 |
| June 17 | Computers and Mobile Devices | 3 |
| June 19 | Programs and Apps | 4 |
| June 24 | Digital Security, Ethics, and Privacy | 5 |
| June 26 | Computing Components | 6 |
| **July 1** | **Midterm Exam/Project** | |
| **July 3** | **Holiday, no class** | |
| July 8 | Input, Output | 7 |
| July 10 | Digital Storage | 8 |
| July 15 | Operating Systems | 9 |
| July 17 | Communicating Digital Content | 10 |
| July 22 | Building Solutions, Working in the Enterprise | 11, 12 |
| **July 24** | **Final/Presentations** | |

**MODIFICATION OF THE SYLLABUS**

The instructor reserves the right to modify this syllabus at any time during the semester. An announcement of any changes will be made in the classroom.