Collapse all

Computers & I. T., Part 2

ATTENTION

Grading at the end of the semester can take 7 school days!
Submit your **last assignment two weeks** before your school's semester ends.

How to Take This Course

Complete all the quizzes and the assignment in each unit. Once the quizzes for a unit are complete, you will have access to the unit test. We recommend you complete the unit assignment before you attempt the unit test; the assignment will help you prepare. You will have access to the final after you have been enrolled in the course for at least 30 days and when all unit tests are completed, and your assignments are graded.

Allow a minimum of 3 school days for an assignment to be graded, longer at the end of a semester. Read the full course instructions to understand how the course is weighted.

- Course Instructions
- How This Course Works & Suggested Timeline
- Submitting Your Assignments
- Ask The Teacher

Meet your teacher for this course and ask a question.

Need help with the course? We offer online tutoring: find more details about it here.

- MANDATORY QUIZ — Completion

You are required to take this quiz before you start the course. To prepare, read the course instructions and the "submitting your assignments" document, watch the video on the how this course works page and review the suggested timeline.

Unit 1: Networks and the Internet

In this unit, you will learn:

- The different types of computer networks, their parts, and the purpose of each part.
- The different types of networking topologies and networking layers.
- How data is transmitted over the network, how it is sent and received using the IP addresses.
- The commonly used network threats and how to circumvent those attacks.

- Unit 1 Study Guide

This study guide will help you preview the concepts and guide your learning as each new skill or concept is introduced. Use this study guide as the foundation of your notes. You may use it on the unit quizzes, unit tests, and course final.

Click on the link above and make a copy of the file; you can open the document in Google Doc., or from the File Menu of a word processing application of your choice, choose Open, and select the study guide. If you prefer to print it, it is available as a PDF.

- 1.1 Computer Networks
- Quiz 1.1 — Completion
- 1.2 Ethernet Cable
- Quiz 1.2 — Completion
- 1.3 Networking Topologies
- Quiz 1.3 — Completion
- 1.4 How the Internet Works
- Quiz 1.4 — Completion
- 1.5 Network Security
- Quiz 1.5 — Completion
- Unit 1 Assignment: The ABCs of Networks — Completion

Unit 2: Tools of a Computer Programmer

In this unit, you will learn:

- How to use computational thinking to approach and solve problems.
- The types and components of a programming language.
- The different tools a programmer uses when writing code.
- How a team of programmers can use a version control system to create and maintain multiple versions of code solutions.
- Examples of software development jobs.

- Unit 2 Study Guide

This study guide will help you preview the concepts and guide your learning as each new skill or concept is introduced. Use this study guide as the foundation of your notes. You may use it on the unit quizzes, unit tests, and course final.

Click on the link above and make a copy of the file; you can open the document in Google Doc., or from the File Menu of a word processing application of your choice, choose Open, and select the study guide. If you prefer to print it, it is available as a PDF.

- 2.1 Computational Thinking
- Quiz 2.1 — Completion
- 2.2 Programming Language
- Quiz 2.2 — Completion
- 2.3 Programming Tools
- Quiz 2.3 — Completion
- 2.4 Careers in Programming
- Quiz 2.4 — Completion
- Unit 2 Assignment: Computer Programmer Job Advertisement — Completion

Unit 3: Software Development

In this unit, you will learn:

- The comparison between Closed-source and Open-source software and the different licenses used in Open-source software.
- The different Software Development Life Cycle Models.
- The principles in software testing and code reviews.
- The Agile Methodology and the Scrum Framework used in Software Development and Project Management.
- How a Database System persists data from the user's inputs.

- Unit 3 Study Guide

This study guide will help you preview the concepts and guide your learning as each new skill or concept is introduced. Use this study guide as the foundation of your notes. You may use it on the unit quizzes, unit tests, and course final.

Click on the link above and make a copy of the file; you can open the document in Google Doc., or from the File Menu of a word processing application of your choice, choose Open, and select the study guide. If you prefer to print it, it is available as a PDF.

- 3.1 Types of Software
- Quiz 3.1 — Completion
- 3.2 Software Development Life Cycle
- Quiz 3.2 — Completion
- 3.3 Software Testing
- Quiz 3.3 — Completion
- 3.4 Project Management
- Quiz 3.4 — Completion
- 3.5 Databases
- Quiz 3.5 — Completion
- Unit 3 Assignment: Close-source vs. Open-source Software — Completion

Unit 4: Introduction to AI

In this unit, you will learn:

- The basics of Artificial Intelligence (AI).
- Practical applications of AI in gaming and chatbots.
- The fundamentals of machine learning and neural networks and their roles in AI.
- Ethical considerations surrounding AI.
- Real-world applications of AI in addressing complex issues.

- Unit 4 Study Guide

This study guide will help you preview the concepts and guide your learning as each new skill or concept is introduced. Use this study guide as the foundation of your notes. You may use it on the unit quizzes, unit tests, and course final.

Click on the link above and make a copy of the file; you can open the document in Google Docs., or from the File Menu of a word processing application of your choice, choose Open, and select the study guide. If you prefer to print it, it is available as a PDF.

- 4.1 What is AI?
- Quiz 4.1 — Completion
- 4.2 AI in Practice
- Quiz 4.2 — Completion
- 4.3 Machine Learning and Neural Networks
- Quiz 4.3 — Completion
- 4.4 Ethical Considerations and Impacts of AI
- Quiz 4.4 — Completion
- 4.5 AI Applications in Real-World Problems
- Quiz 4.5 — Completion
- Unit 4 Assignment: AI Exploration and Ethical Considerations — Completion

Unit 5: Emerging Technologies

In this unit, you will learn:

- What qualifies as an emerging technology?
- Current technology trends.
- Benefits and risks of emerging technologies.
- Ethical considerations when using and developing emerging technologies.
- Key principles of responsible innovation.

- Unit 5 Study Guide

This study guide will help you preview the concepts and guide your learning as each new skill or concept is introduced. Use this study guide as the foundation of your notes. You may use it on the unit quizzes, unit tests, and course final.

Click on the link above and make a copy of the file; you can open the document in Google Docs., or from the File Menu of a word processing application of your choice, choose Open, and select the study guide. If you prefer to print it, it is available as a PDF.

- 5.1 Introduction to Emerging Technologies
- Quiz 5.1 — Completion
- 5.2 Technology Trends
- Quiz 5.2 — Completion
- 5.3 Benefits and Risks of Emerging Technologies
- Quiz 5.3 — Completion
- 5.4 Ethical Considerations of Emerging Technologies
- Quiz 5.4 — Completion
- 5.5 Responsible Innovation
- Quiz 5.5 — Completion
- Unit 5 Assignment: Unveiling Emerging Technologies — Completion

Final Exam

Once you have completed all of the unit tests and all of your assignments have been graded, the final exam will become visible.

Warning: You have only ONE attempt at the final. Are you ready to take the final? We highly recommend you take the practice final first, and if you are weak in any area, review the relevant course material again. You have unlimited attempts at the practice final. It will help you to prepare.

Remember, if you want to improve your grade in this course, you need to do that BEFORE you take the final exam.

Good Luck!

- Practice Final

Course Completion & Requesting a Transcript

Warning - if you are waiting for a resubmitted assignment to be graded, do NOT generate any course completion record until the teacher has graded it.

Transcript - Send a transcript to your school to report the credits you earned. A transcript will list all the courses you have taken with us, including those still in progress.

Course Certificate and **Course Completion Record** - These links cannot be accessed until you have completed the final exam. Upon satisfying this requirement, the links will become active.

Feedback - Before you go, we would appreciate your opinion on the course; please take 1 minute to complete the feedback form. We hope you enjoyed this course!

- Course Feedback

Thank you for taking this course! Let us know what you think about it.

- Request a Transcript

Notify your school that you have completed your course. Send them a transcript by email or mail. A transcript will list all the courses you have completed and those in progress.

- Request a Course Completion Record

Notify your school that you have completed your course. The course completion record will show the final grade earned in this course. It does not include any other courses you have completed or have in progress.

Not available unless: The activity **Final Exam** is marked complete

- Certificate of Completion

Not available unless: The activity **Final Exam** is marked complete