



Computer Science (COMP) 347

Computer Networks (Revision 7)

Status:	Replaced with new revision, see the course listing ↗ for the current revision ✖
Delivery mode:	Individualized study online ↗ with eText ↗
Credits:	3
Area of study:	Science
Prerequisites:	COMP 314*
Precluded:	COMP 345 or COMP 346. (COMP 347 may not be taken for credit if credit has already been obtained for COMP 345 or COMP 346.)
Challenge:	COMP 347 has a challenge for credit option.
Faculty:	Faculty of Science and Technology ↗

Notes:

Students who are concerned about not meeting the prerequisites for this course are encouraged to contact the **course coordinator** before registering

Overview

COMP 347 is a university course designed to teach the essential principles and technologies of computer networking. To accommodate the needs of students who do not have enough programming background, or are not interested in programming, requirements for coding have been removed from the course.

Outline

COMP 347 consists of the following units:

- Unit 0: Orientation
- Unit 1: Introduction to Computer Networks, the Internet, and the World Wide Web
- Unit 2: Application Layer and Network Applications
- Unit 3: Transport Layer
- Unit 4: The Network Layer and Routing
- Unit 5: The Link Layer and Local Area Networks
- Unit 6: Wireless and Mobile Networks
- Unit 7: Multimedia networking
- Unit 8: Network Management

Learning outcomes

Upon successful completion of this course, you should be able to:

- Explain the fundamental concepts and terminologies of computer networks and be able to communicate with computer networking professionals using the proper technical terms.
- Use the concepts of layered models and network principles and technologies to explain how computer networks and their components work and to explain various performance issues such as delays and quality assurance.
- Explain various network standards and protocols.
- Use computer network principles and technologies to solve network-related problems.
- Design new network protocols for network services to meet certain requirements.
- Apply computer network principles and technologies to the design, implementation, and management of computer networks.

Evaluation

To **receive credit**  for COMP 347, you must achieve a course composite grade of at least **D (50 percent)** , including a grade of 50 percent on each assignment, and at least 50 percent on the final examination. The weighting of these grades is as follows:

Activity	Weight
Assignment 1	15%
Assignment 2	20%

Activity	Weight
Assignment 3	20%
Assignment 4	15%
Final Examination	30%
Total	100%

To learn more about assignments and examinations, please refer to Athabasca University's **online Calendar** [↗](#).

Materials

Kurose, J. F., & Ross, K. W. (2013). *Computer Networking: A Top-Down Approach* (6th ed.). Boston, MA: Addison-Wesley.  (eText)

eText

Registration in this course includes an electronic textbook. For more information on **electronic textbooks** [↗](#), please refer to our **eText Initiative site** [↗](#).

Other Resources

The remainder of the learning resources for *Computer Science 347* are distributed in electronic format or are available from the course or other Web sites. The materials in these categories presently include:

Distributed in Electronic Format:

- *Computer Science 347 Study Guide*.

Available from the Course Web Site:

- Tutor Marked Exercises and Instructions

- Self-Testing Quizzes (on the homepage of the Kurose-Ross textbook.)
- A Course Evaluation Form
- Links to Other Web-based Course Resources

Available from Other Web Sites:

- Companion website for the textbook
- Additional supporting materials of interest to students may occasionally be made available electronically.

Special Course Features

COMP 347 is offered by computer mediated communications (CMC) mode, and can be completed at the student's workplace or home. It is an elective in all Computing and Information Systems programs, for example, **B.Sc. in Computing and Information Systems** [↗](#).

Challenge for credit

Overview

The challenge for credit process allows you to demonstrate that you have acquired a command of the general subject matter, knowledge, intellectual and/or other skills that would normally be found in a university-level course.

Full information about **challenge for credit** [↗](#) can be found in the Undergraduate Calendar.

Evaluation

To **receive credit** [↗](#) for the COMP 347 challenge, you must achieve a grade of at least **D (50 per cent)** [↗](#) on the examination and 50 percent on the project.

Activity	Weight
Project	50%
Examination	50%
Total	100%



Challenge for credit course registration form

Important links

- › [Academic advising](#)
- › [Program planning](#)
- › [Request assistance](#)
- › [Support services](#)

Athabasca University reserves the right to amend course outlines occasionally and without notice. Courses offered by other delivery methods may vary from their individualized study counterparts.

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