



Computer Science (COMP) 214

Interactive Technologies (Revision 1)

Status: Replaced with new revision, see the [course listing](#) for the current revision

Delivery mode: [Individualized study online](#)

Credits: 3

Area of study: Science

Prerequisites: None. It is recommended that you complete the steps in [Are You Ready to Start an SCIS Program or Course?](#)

Precluded: None

Challenge: COMP 214 is not available for challenge.

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 214 is a guided exploration of current and emerging technologies in human-computer interaction (HCI), with some historical perspective. The aim of the course is to give students a general understanding of the context and current state of interactive computer technology and allow them to explore those aspects of HCI that most interest them.

The course is organized in a non-linear fashion, with four main topics. Students may work on topics in any order and may to some extent select which, and how many, activities they complete on each topic.

Outline

COMP 214 consists of four main topics, each of which has a number of sub-topics:

Topic 1:

- The Context Of Human-Computer Interaction (HCI)
- History and Development of Computer Interfaces
- The Next Generation of Interfaces
- Ergonomics

Topic 2:

- Input and Output
- Input at the Programming Level
- Input Devices and Data Types – From Typing to Sensing
- Output – Not Just Information Anymore

Topic 3:

- Using And Evaluating Application Interfaces
- Windows and Other Desktop Interfaces
- 2D and 3D Interfaces

Topic 4:

- Creating User Interfaces
- Principles of Sound Interface Design
- Web Interfaces
- Image Maps
- Using Simple Programming Tools to Design Interactive Applications or Interfaces

Learning outcomes


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

- Describe and discuss the history and development of computer interfaces, including next generation.
- List and discuss ergonomic issues of human-computer interaction (HCI).
- List and describe input and output technologies and the role of input at the programming level.
- Discuss the relationships of input devices and data types—from typing to sensing.
- List and discuss emerging and prospective output devices (physical output, AI, etc.)
- Use, describe and evaluate application interfaces including desktop interfaces, 3D and VR interfaces.
- Create basic user interfaces, including websites and image maps, and describe the principles of sound interface design.
- Use simple programming tools to design interactive applications or interfaces.


Evaluation

To **receive credit** [↗](#) for COMP 214, you must achieve a course composite grade of at least **D (50 percent)** [↗](#), including an average grade of 50 percent on the assignments. The weighting of the composite grade is as follows:

Activity	Weight
Assignment 1	22%
Assignment 2	22%
Assignment 3	22%
Assignment 4	22%
Assignment 5	12%
Total	100%

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

Materials

This course either does not have a course package or the textbooks are open-source material and available to students at no cost. This course has a [Course Administration and Technology Fee](#) , but students are not charged the Course Materials Fee.

The course materials for COMP 214 are all in electronic format, using current online materials.

Special Course Features

Students may use a variety of presentation formats for assignments, including illustrated articles, PowerPoint presentations, websites, or Windows MovieMaker videos. A variety of freeware and open source programs may also be used. An MS Word-compatible word processing program is required. (The use of PowerPoint is optional.)

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.

Opened in Revision 1, November 9, 2010

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