







# Philosophy (PHIL) 371

## Ethics in Science and Technology (Revision 4)

<b>Status:</b>	Replaced with new revision, see the <a href="#">course listing</a>  for the current revision 
<b>Delivery mode:</b>	Individualized study online 
<b>Credits:</b>	3
<b>Areas of study:</b>	Arts or Humanities
<b>Prerequisites:</b>	<b>PHIL 252</b> and one university-level science course are recommended but not required.
<b>Precluded:</b>	None
<b>Challenge:</b>	PHIL 371 has a challenge for credit option.
<b>Faculty:</b>	<a href="#">Faculty of Humanities and Social Sciences</a> 

## Overview

Philosophy 371: Ethics in Science and Technology provides an introduction to the special ethical problems and issues associated with science, scientific research, applied science, and technology. For example, should research be conducted on animals, and if so, under what conditions? What ethical issues arise as a result of our increasing use of computers?

Why should students study ethical issues in science and technology? One reason is that several recent scientific developments such as cloning and genetic engineering of plants and animals have raised pressing ethical issues. Many universities and research funding agencies have determined that science and technology majors should increase their awareness of the ethical issues they are likely to face in their careers and have made courses such as this one mandatory. As well, many members of the public wish to increase their understanding of current debates about ethical issues in biotechnology and other areas of science that will affect their lives and well-being.

The reasons for studying ethical issues in science and technology extend beyond current controversies to the pervasive influence of science and technology in our lives. Thus, we will focus in this course not only on current issues, but on long-standing debates and deeper questions about why ethical issues continue to arise in science and technology. For example, some people argue that our attitude toward the natural environment as a resource to be dominated and exploited is at the root of these issues. This course will not provide easy answers to the questions we will raise, but it will provide students with concepts and methods for thinking about them systematically and coherently, and for developing justifiable positions about them.

## Outline

- **Unit 1:** Introducing Ethics in Science and Technology
- **Unit 2:** Ethics and Moral Reasoning
- **Unit 3:** Research Ethics: Human and Animal Experimentation
- **Unit 4:** Professional Responsibility and Whistle-Blowing
- **Unit 5:** Bio-Engineering and Nanotechnology
- **Unit 6:** Computer Ethics and Machine Ethics
- **Unit 7:** Military Technology and Ethics
- **Unit 8:** Technology and Humanity

## Evaluation

To **receive credit** [↗](#) for PHIL 371, you must submit every piece of written work and achieve a course composite mark of at least **D (50 percent)** [📄](#). The weighting of the composite mark is as follows:

Activity	Weight
Assignment 1: Three Short Essays	30%
Assignment 2: Case Study Essay	30%
Final Exam	40%
<b>Total</b>	<b>100%</b>

The **final examination** for this course must be requested in advance and written under the supervision of an AU-approved exam invigilator. Invigilators include either ProctorU or an approved in-person invigilation centre that can accommodate online exams. Students are responsible for payment of any invigilation fees. Information on exam request deadlines, invigilators, and other exam-related questions, can be found at the **Exams and grades** [↗](#) section of the Calendar.

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.

All other materials are available online.

## 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 PHIL 371 challenge registration, you must achieve an overall grade of at least **D (50 percent)** [↗](#).

Activity	Weight
Essay	40%
Exam	60%
<b>Total</b>	<b>100%</b>

 [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.

*Opened in Revision 4, December 11, 2018*

*Updated January 22, 2025*

View **previous revision** [!\[\]\(2e897e890e69d81eae4503a8342c36b0\_img.jpg\)](#)

---