

Course Description

This course investigates ethical issues in both the development and application of robotics technologies. Through a combination of selected readings and films, interviews with experts, and an innovative use of media, you will develop critical thinking and reasoning skills applicable to this domain and beyond.

Course Information

- Robot Ethics
- PHIL24632/STV24632
- CRN 3622/3981/3632/4020
- Credits: 3

Course Delivery and Format

The regular, live class meetings are supplemented by activities and exercises that are to be completed outside of the live sessions. Advance preparation and attendance for the live sessions are mandatory. Course content including learning resources and grades will be made available to students on the Nexus platform.

Learning Objectives/Goals

Upon successful completion of this course, students will be able to:

- Apply appropriate framework(s) of ethical judgement for critical assessment of assorted topical issues pertaining to robot ethics
- Discuss social and ethical implications of using robots
- Identify ethical challenges related to programming robots
- Explain personal/practical views related to robots and ethical decision-making
- Predict outcomes of selected ethical dilemmas in the context of robot ethics

COURSE DETAILS

Zoom Live Sessions

<https://notredame.zoom.us/j/956668843>

Tuesdays & Thursdays
10:00-11:30 AM (ET)

INSTRUCTORS:

- **Jude Galbraith**
OFFICE: Malloy B005
jgalbra1@nd.edu
OFFICE HOURS
TR 11:30 AM - 1:00 PM (ET)
- **Jamee Elder**
jelder@nd.edu
OFFICE HOURS
By appointment

Course Content (topical areas of study)

The course is organized around the topics listed below.

Introduction to Robot Ethics
Frameworks for Ethical Judgment
Cost-Benefit Analysis
Autonomous Weapons
Self-Driving Cars
Asimov's Three Laws
Ethics Programming for Robots
Healthcare and Robotics
Prosthetics and Human Enhancement
Robots as Friends and Lovers
Privacy
Technological Unemployment
Robot Rights
Will there be an AI Singularity?
Technological Virtue
Religious Perspectives on Robot Ethics

Required Materials

Textbooks and Materials

There are no required textbooks to purchase for this class. All content will be accessed on Nexus.

Computing Equipment Requirements

In order to succeed in this course, students need a/an:

- Stable internet connection - a wired (ethernet) connection is recommended
- Link to the video conferencing software used for weekly live class meetings (Zoom). The same link is used for every class meeting. This is posted in the online class on Nexus.
- Reliable webcam and microphone

Students must have access to a fully functioning laptop or desktop computer with a word processing software, like Microsoft Word or [Libre Office](#) (a free alternative to Word). Mobile devices (e.g., iPads, tablets, smartphones) should not be relied upon as the primary means of receiving and engaging with course content as course interactions will likely extend beyond the limitations of those devices and may not provide an optimal user experience.

It is the responsibility of students to ensure a consistent and dedicated connection when joining all weekly live meetings. While most phones, tablets, and laptops have built-in webcams that

are completely acceptable to use for class, it is recommended that students get and use some sort of external microphone (like a headset or earbuds).

Online Courseware

The online courseware for this course is available on Nexus. This is where all instructional resources, activities, assignments, and grades will be kept.

Course Policies

Due Dates and Time Zones

All due dates are all presented in eastern time (ET). Students are responsible for every and all time zone conversion that might be required for submission of assignments and other class activities by the stated deadline.

Attendance

Attendance at all live meetings is mandatory and thus essential for obtaining a passing grade in the class. If you need to miss a class, please contact your instructor ahead of the absence or as soon as possible after missing the class. See the following make-up policy section for more information on mitigating the impact of a class absence.

Make-up Policy

The student is required to view the transcript of the missed class and complete all class assignments in a timely manner. Other required make-up work will be specified by the instructor.

The student will be assigned zero participation points for the missed class session. All students are allowed a single missed class period with no effect on their grade apart from the unassigned participation points. Any additional unexcused absence beyond the first will result in a drop in the course letter grade by $\frac{1}{3}$.

Access to Grades

All grades for this course will be recorded and made visible to students in Nexus. Students can expect grades to be updated weekly.

Last Day to Withdraw

There are two important dates related to withdrawing from a course.

- 1st Drop Deadline is June 14. This refers to the last day that you can withdraw from a course and still receive 100% tuition back.
- 2nd Drop Deadline is June 30. This refers to the last day you can withdraw from a course with the dean's approval; a W will appear on your transcript.

NOTE: Students cannot withdraw from a class using NOVO; you must contact the registrar's office. You can look-up contact information [here](#).

Course Communication

While much of the course conversations will take place during the weekly class meetings, students may have need to contact the instructor outside of the class meetings. The instructor for this course uses email as the primary mode of communication. Students should always keep the instructor informed of issues, questions, or (un)expected delays or outages that may occur.

Students can expect a reply to email within 36 hours.

Appropriate online communication is an important part of being a successful online student. All students should review the Netiquette document available [here](#).

Assignments and Grading

This course uses a raw point system to assign grades. There are 1000 points possible. Below is a breakdown of how these points are distributed across different kinds of assignments.

Graded Assignments	# of Assignments	Points Per	Total Points
Completion of Course Journals	16	15	240
In-Class Participation	16	10	160
Discussion Papers	3	200	600
Total Points Possible			1000

Week 0 Warm-up Activities

Prior to the first class meeting, students will be given advance access to the syllabus and the online content for weeks 0 and 1. Week 0 is a section that contains important information about the course, such as a course calendar, instructions on how to complete assignments,

information about the professor and more.

Completion of Course Journals

You will be required to keep a journal for recording your critical reactions to the assigned readings and videos. At a minimum, you should write a one-page (minimum 300 word) critical response to each class session's assignments, including both readings and videos, though you are encouraged to write more, taking advantage of this opportunity to record your thoughts on any topic related to the course and to the readings. Journal entries will be checked regularly for completion and graded on a random, unannounced basis several times throughout the summer session. See the handout, "How to Keep a Good Journal" for additional guidelines. These journal entries are to be submitted through the "blog" function on the Sakai site for this course.

In-Class Participation

There will be many opportunities to participate during the two class sessions each week. Each class is designed to move back and forth from short lecture presentations to student exercises and discussion. Students will be awarded up to 10 points for alertness and participation in activities.

Discussion Papers

Each student will be required to submit 3 discussion papers, each a minimum of 5 pages on topics to be worked out in consultation with the instructor.

One-Minute Papers

There is one, additional, required but ungraded activity. After every live class session you will write a so-called "one-minute paper," in which you will write no more than two- or three-sentence answers to two questions: (a) What was the most important point covered in today's class? (b) What issue or question was left most unclear in your mind at the end of today's class? You will email these to me at jgalbra1@nd.edu immediately after the live class session is concluded.

Right of Revision

The university reserves the right to change any statements, policies or scheduling as necessary. Students will be informed promptly of any and all changes.

University Policies

[Honor Code](#): As members of the Notre Dame community, students must abide by all Academic Honor Code policies. All cases of alleged academic dishonesty will be processed according to procedures described within this Honor Code document.

[Copyright statement](#): The University of Notre Dame has adopted several policies related to the creation and use of copyrighted materials. These are outlined here.

[ADA statement](#): “The University of Notre Dame will not tolerate discrimination or harassment on the basis of disability. Persons with disabilities (including students, faculty, staff, and job applicants) will be provided equal opportunities in accordance with the requirements of the Americans with Disabilities Act of 1990 (ADA), the Rehabilitation Act of 1973, and other applicable state and federal laws.”

Additional Support

On-campus resources for student support are listed below. Students taking this course from outside the South Bend area should contact the respective offices using the links below to explore if and how these resources are accessed by distance/remote students.

Title IX

- Violence and harassment based on sex and gender are Civil Rights offenses. If you or someone that you know has been harassed or assaulted, you can find resources at [the University’s Title IX website](#).

Counseling Services

- The University Counseling Center (UCC) provides [confidential](#) short-term [counseling](#) and [crisis intervention](#) services to [eligible](#) Notre Dame students. [More information available here](#).

Library - Research

- [LibGuides](#) are research, course, and how-to guides published by Hesburgh Librarians.
- [Curate ND](#): a collection of Notre Dame’s research and scholarship for study throughout time.
- [Academic Services & Collections](#)
- [Avoiding Plagiarism](#)

Library - Digital Media Creation

- [Remix](#) - assembles a broad variety of tools in one place to help students find, mix, and create new digital media.
- The Center for Digital Scholarship (CDS)
 - [Sound Studio](#) - for recording audio-only

- [One Button Studio](#) - for recording video and audio
- [Technology Support Service](#)

Disabilities Services

- [Sara Bea Disability Services](#): Registered students can request accommodations for reducing/eliminating the barriers that may be caused by the interaction of a disability and a traditional academic environment.

Registrar's Office

- [Summer Sessions](#)
- General summer online information can be [found here](#).