INT-D 161: AI Everywhere Lec A1

Fall 2025 (subject to change until Sept 8th, 2025)

Instructor: Adam White Office: Ucomm 7-188 Email: amw8ualberta.ca

Course web page: https://canvas.ualberta.ca/courses/28426

TAs: Shivam Garg, Jacob Adkins

Office hours: (There are no office hours on holidays, reading week, or after the last day of classes.)

Adam: Thursdays 2pm to 3pm Ucomm 7-188 (in person only)

How to contact the instruction team:

All questions should be asked via <u>Canvas Q&A forum</u>. If you have a personal issue, contact Adam directly. TA's will not answer questions sent via email; Canvas only!

Lecture room & time:

UComm 2-001, Tuesday & Thursdays, 3:30pm - 4:50pm Video recordings of lectures and slides will be shared via Canvas after each lecture

Slack invitation link: We will use <u>Slack</u> as an optional alternative to Canvas for communication and question-answering. You will be invited via your UofA email during the first week.

Important Dates: See the current Calendar for the <u>Academic Schedule</u>, <u>Dates</u>, and <u>Deadlines</u>, which includes the Registration Add/Drop deadline and the Withdrawal date.

Course Content

Course Description:

Artificial Intelligence (AI) Everywhere is a non-technical undergraduate online course focused on giving students a foundational understanding of AI and where it can be applied. Although AI is a technical topic, this course is intended to demystify the field and has no prerequisites. This course will first cover the history of AI and its multidisciplinary beginnings with connections to psychology, animal learning, neuroscience, and computing science. From there students will be introduced to the basic components of modern AI through several case studies. The course will explore the role of data collection and human inputs in a range of systems from classical expert systems, to supervised learning, to reinforcement learning systems that generate their own data by interacting with the world. Throughout, we will use simple terms to discuss the general approaches, successes and failures of AI and machine learning systems, as well as interactions with people, including privacy and our ability to understand machines that learn.

Course Objectives and Expected Learning Outcomes:

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

- 1. Define intelligence and describe why giving such a definition is difficult.
- 2. Given a description of the system (e.g., calculator, radio, google maps) identify if AI is part of that system. Identify additional ways how AI might be used as part of that system.
- 3. Identify risks associated with AI systems when the system's goals are not understood, or are not well aligned with humans.
- 4. Recognize that computer programs are a way of combining (1) our expert human knowledge and (2) data to make computers do useful things.
- 5. Describe the key components of a machine learning system.
- 6. Describe what it means to train and test a machine learning model, and how to evaluate if a model is working.
- 7. Understand how AI is used to help other disciplines (e.g., Science, Education, etc).

There are no required textbooks for this course.

Throughout the term students will be provided additional readings from shared documents and online resources.

Course Prerequisites:

None!

Lecture Schedule & Assigned Readings:

See the class schedule on Canvas

Attendance to lecture:

In person attendance **IS REQUIRED**. Attendance will be checked in class and will be a part of your grade. Some classes can be missed.

Grade Evaluation

Assessment	Weight	Date
Assignments (3 total)	30%	See schedule from Canvas
Mini-essay #1	10%	Tentatively Oct 28th, 2025
Mini-essay #2	10%	Tentatively Nov 27th, 2025
Participation (attendance)	5%	
Final Exam	45%	5:30 p.m. Thursday, December 11

The final exam will be in person for all students. CLOSED BOOK. You must write the exam in person to pass the course; else, your grade will be entered as incomplete.

Late Policy:

The following deduction schedule applies to the three assignments and mini-essays:

On time: no deductions
1 day late: 25% deduction
2 days late: 50% deduction
3 days late: 75% deduction

• >= 4 days late: 100% deduction (i.e., automatic grade of zero)

The final exam will be based, in part, on six multiple practice quizzes that we will share with you near the end of the term. You will be able to do these quizzes via Canvas. The final exam will be multiple choice and use Scrantron sheets.

Spot-checking assessments:

For any submitted assessment (assignments and mini-essays) the instructors may call on you in-person or over video chat to explain your answers. The instructor may adjust your grades depending on your ability to explain your own answer.

Grade Evaluation:

At the end of the term your percentage grade will be converted into a letter grade. The instructor will design the mapping during final grade tabulation; there will be no predefined letter grade mapping for this course.

Statement of Expectations for AI Use:

The primary goal of this course is to foster individual critical, creative thinking, and problem-solving skills related to AI, machine learning, and basic code understanding.

The use of advanced AI tools based on large-language models such as ChatGPT or Gemini is strictly prohibited for all assignments. For mini-essays, AI tools can be used to check grammar and suggest improvements to your writing. You MAY NOT use AI tools to draft your essay or generate ideas.

IMPORTANT: Failure to abide by these guidelines may be considered an act of academic misconduct and a violation as outlined in the relevant sections of the <u>University of Alberta Student Academic Integrity Policy</u>.

Format of Exam:

The date, time, and place of the final exam are scheduled by the office of the registrar; the final will be a 2-hour exam, in person. The final will be multiple choice (graded via scantron). The exams will be closed book and written in real-time.

Re-examination:

A student who writes the final examination and fails the course may apply for a re-examination. Re-examinations are rarely granted in the Faculty of Science. Re-examinations are governed by university-wide Academic Regulations and Faculty of Science Academic Regulations. Misrepresentation of Facts to gain a re-examination is a serious breach of the Student Academic Integrity Policy.

Missed Term Exams and Assessments:

For an excused absence where the cause is religious belief, a student must contact the instructor(s) within two weeks of the start of Fall or Winter classes to request accommodation for the term (including the final exam, where relevant). Instructors may request adequate documentation to substantiate the student request.

A student who cannot write a term test or complete a term assignment due to incapacitating illness, severe domestic affliction or other compelling reasons must contact the instructor via email within 48 hours of missed term test or quiz to apply for a deferred midterm examination, deferral of the weight of the missed quiz, and/or the final exam. In all cases, instructors may request adequate documentation to substantiate the reason for the absence at their discretion.

Note: Transferring the weight of missed work to the final exam could result in the student not being approved for a deferred final examination, as they may not have completed the required 50% of term work.

In all cases, instructors may request adequate documentation to substantiate the reason for the absence, at their discretion.

Deferral of term work is a privilege and not a right; there is no guarantee that a deferral will be granted. Misrepresentation of Facts to gain a deferral is a serious breach of the Code of Student Behaviour.

Deferred Final Examination:

A student who cannot write the final examination due to incapacitating illness, severe domestic affliction or other compelling reasons can apply to their Faculty for a deferred final examination. Students who failed at the start of term to request exam accommodations for religious beliefs

are expected to follow the normal deferred final examination process. Such an application must be made to the student's Faculty office (Faculty of Science: advisor.science@ualberta.ca; Faculty of Arts: arts.undergrad@ualberta.ca) within two working days of the missed examination and must be supported by appropriate documentation or a Statutory Declaration (see Calendar for information on Attendance). Deferred examinations are a privilege and not a right; there is no guarantee that a deferred examination will be granted. Misrepresentation of Facts to gain a deferred examination is a serious breach of the Code of Student Behaviour.

The deferred exam will be an oral exam with Dr. White scheduled in January of 2026.

Final Exam Conduct:

- Your student photo I.D. is required at exams to verify your identity.
- Students will not be allowed to begin an examination after it has been in progress for >=30 minutes.
- All cell phones must be turned off and stored in your bags. No translators are allowed.
 No electronic devices of any kind can be used inside the exam room.

Assignment and mini-essay collaboration policy:

You are allowed to consult the lecture videos, lecture slides and additional reading materials on Canvas while solving the assignments. You are also allowed to discuss the assignments with your classmates, however, you ARE NOT allowed to do the assignments together at the same time. You cannot share answers or text for written assignments nor mini-essays. As stated above, you are not allowed to use AI tools in your coursework. We refer students to the University of Alberta's webpage on How to Avoid Inappropriate Collaboration. Do not write down something that you cannot explain to your instructor.

REMOTE DELIVERY CONSIDERATIONS

Technology for Remote Learning: To successfully participate in remote learning in this course, it is recommended that students have access to a computer with an internet connection that can support the tools and technologies the University uses to deliver content, engage with instructors, TAs, and fellow students, and facilitate assessment and examinations. Please refer to Technology for Remote Learning - For Students for details. If you encounter difficulty meeting the technology recommendations, please email the Dean of Students Office (dosdean@ualberta.ca) directly to explore options and support.

Please contact the instructor by the add/drop deadline if you do not have access to the minimum technology recommended. The instructor will make arrangements for accommodating students who contact the instructor before this date. Failure to do so may result in a zero in any assessment that depends on the minimum technology.

Student Resources for Remote Learning: Online learning may be new to you. Check out tips for success and find out more about online learning on the <u>Campus Life</u> page, specifically on the <u>Academic Skills Online & Remote Delivery Resources</u> page.

STUDENT RESPONSIBILITIES

Academic Integrity and Student Conduct:

The University of Alberta is committed to the highest standards of academic integrity and honesty, as well as maintaining a learning environment that fosters the safety, security, and the inherent dignity of each member of the community, ensuring students conduct themselves accordingly. Students are expected to be familiar with the standards of academic honesty and appropriate student conduct, and to uphold the policies of the University in this respect.

Students are particularly urged to familiarize themselves with the provisions of the <u>Student Academic Integrity Policy</u> and the <u>Student Conduct Policy</u>, and avoid any behaviour that could potentially result in suspicions of academic misconduct (e.g., cheating, plagiarism, misrepresentation of facts, participation in an offence) and non-academic misconduct (e.g., discrimination, harassment, physical assault). Academic and non-academic misconduct are taken very seriously and can result in suspension or expulsion from the University.

All students are expected to consult the <u>Academic Integrity website</u> for clarification on the various academic offences. All forms of academic dishonesty are unacceptable at the University. Unfamiliarity of the rules, procrastination or personal pressures are not acceptable excuses for committing an offence. Listen to your instructor, be a good person, ask for help when you need it, and do your own work -- this will lead you toward a path to success. Any academic integrity concern in this course will be reported to the College of Natural and Applied Sciences. Suspected cases of non-academic misconduct will be reported to the Dean of Students. The College, the Faculty, and the Dean of Students are committed to student rights and responsibilities, and adhere to due process and administrative fairness, as outlined in the <u>Student Academic Integrity Policy</u> and the <u>Student Conduct Policy</u>. Please refer to the policy websites for details on inappropriate behaviours and possible sanctions.

The College of Natural and Applied Sciences (CNAS) has created an <u>Academic Integrity for CNAS Students</u> eClass site. Students can self enroll and review the various resources provided, including the importance of academic integrity, examples of academic misconduct & possible sanctions, and the academic misconduct & appeal process. They can also complete assessments to test their knowledge and earn a completion certificate.

"Integrity is doing the right thing, even when no one is watching." -- C.S. Lewis

Contract Cheating and Misuse of University Academic Materials or Other Assets:

Contract cheating describes the form of academic dishonesty where students get academic work completed on their behalf, which they then submit for academic credit as if they had created it themselves.

Contract cheating may or may not involve the payment of a fee to a third party, who then creates the work for the student.

Examples include:

- 1) Getting someone to write an essay or research paper for you.
- 2) Getting someone to complete your assignment or exam for you.
- 3) Posting an essay, assignment or exam question to a tutorial or study website; the question is answered by a "content expert", then you copy it and submit it as your own answer.
- 4) Posting your solutions to a tutorial/study website, public server or group chat and/or copying solutions that were posted to a tutorial/study website public server or group chat.
- 5) Sharing your login credentials to the course management system (e.g. Canvas) and allowing someone else to complete your assignment or exam remotely.
- 6) Using an artificial intelligence bot or text generator tool to complete your essay, research paper, assignment or exam solutions for you.

Contract cheating companies thrive on making students believe that they cannot succeed without their help; they attempt to convince students that cheating is the only way to succeed.

Uploading the instructor's teaching materials (e.g. course outlines, lecture slides, assignment or exam questions, etc.) to tutorial, study or note-sharing websites or public servers is a copyright infringement and constitutes the misuse of University academic materials or other assets.

Receiving assignment solutions or answers to exam questions from an unauthorised source puts you at risk of receiving inaccurate information.

Cell Phones:

Cell phones are to be turned off during lectures.

Recording and/or Distribution of Course Materials:

Audio or video recording, digital or otherwise, of lectures, labs, seminars or any other teaching environment by students is allowed only with the prior written consent of the instructor or as a part of an approved accommodation plan. Student or instructor content, digital or otherwise, created and/or used within the context of the course is to be used solely for personal study, and is not to be used or distributed for any other purpose without prior written consent from the content author(s).

LEARNING RESOURCES

Students Eligible for Accessibility-Related Accommodations:

In accordance with the University of Alberta's <u>Discrimination</u>, <u>Harassment</u>, and <u>Duty to Accommodate policy</u>, accommodation support is available to eligible students who encounter limitations or restrictions to their ability to perform the daily activities necessary to pursue studies at a post-secondary level due to medical conditions and/or non-medical protected grounds. Accommodations are coordinated through the <u>Academic Success Centre</u>, and students can learn more about eligibility on the <u>Register for Accommodations website</u>.

Academic Success Centre:

The <u>Academic Success Centre</u> provides professional academic support to help students strengthen their academic skills and achieve their academic goals. Individual advising, appointments, and group workshops are available year-round in the areas of Accessibility, Communication, Learning, and Writing Resources. Modest fees apply for some services.

Faculty of Science Student Services:

The Faculty of Science Student Services office is located on the main floor of the Centennial Centre for Interdisciplinary Sciences (CCIS). This office can assist with the planning of your Academics and provide information related to Student Life & Engagement, Internship & Careers, and Study Abroad opportunities. Please visit Advising for more information about what Faculty Academic Advisors in the Student Services Office can assist you with.

Learning and Working Environment:

The Faculty of Science is committed to ensuring that all students, faculty and staff are able to work and study in an environment that is safe and free from discrimination, harassment, and violence of any kind. It does not tolerate behaviour that undermines that environment. This includes virtual environments and platforms.

If you are experiencing harassment, discrimination, fraud, theft or any other issue and would like to get confidential advice, please contact any of these campus services:

- Office of Safe Disclosure & Human Rights: A safe, neutral and confidential space to disclose concerns about how the University of Alberta policies, procedures or ethical standards are being applied. They provide strategic advice and referral on matters such as discrimination, harassment, duty to accommodate and wrong-doings. Disclosures can be made in person or online using the Online Reporting Tool.
- University of Alberta Protective Services: Peace officers dedicated to ensuring the safety and security of U of A campuses and community. Staff or students can contact UAPS to make a report if they feel unsafe, threatened, or targeted on campus or by another member of the university community.
- Office of the Student Ombuds: A confidential and free service that strives to ensure that university processes related to students operate as fairly as possible. They offer

- information, advice, and support to students, faculty, and staff as they deal with academic, discipline, interpersonal, and financial issues related to student programs.
- Office of the Dean of Students: They can assist students in navigating services to ensure they receive appropriate and timely resources. For students who are unsure of the support they may need, are concerned about how to access services on campus, or feel like they may need interim support while you wait to access a service, the Dean of Students office is here to help.

Feeling Stressed, Anxious, or Upset?

It's normal for us to have different mental health experiences throughout the year. Know that there are people who want to help. You can reach out to your friends and access a variety of supports available on and off campus at the <u>Need Help Now</u> webpage or by calling the 24-hour Distress Line: 780-482-4357 (HELP).

Student Self-Care Guide:

This <u>Self-Care Guide</u>, originally designed by the Faculty of Native Studies, has broader application for use during students' learning. It provides some ideas and strategies to consider that can help navigate emotionally challenging or triggering material.

Disclaimer: Any typographical errors in this Course Outline are subject to change and will be announced in class. The date of the final examination is set by the Registrar and takes precedence over the final examination date reported in this syllabus.

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