UNIVERSITY OF CALGARY
FACULTY OF SCIENCE

Department of Computer Science

ICT 602
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CPSC 433 - ARTIFICIAL INTELLIGENCE - FALL 2025

COURSE OUTLINE

The University of Calgary, located in the heart of Southern Alberta, both acknowledges and pays tribute to the traditional territories of the peoples of Treaty 7, which include the Blackfoot Confederacy (comprised of the Siksika, the Piikani, and the Kainai First Nations), the Tsuut'ina First Nation, and the Stoney Nakoda (including Chiniki, Bearspaw, and Goodstoney First Nations). The City of Calgary is also home to the Métis Nation of Alberta (Districts 5 and 6).

A. Course Information

1. Course Coordinator(s)

Not Applicable

2. Lecture Section(s)

Lecture 01 : TR 12:30 - 13:45 in ST 141

Instructor	Email	Phone	Office	Student/Office Hours
Dr. Jonathan Hudson	jwhudson@ucalgary.ca	N/A	ICT 712	MW 11:00 - 11:50

3. Lab and Tutorial Sections

Tut 01 WF 15:00 - 15:50 in MS 156	Tut 02 WF 12:00 - 12:50 in MS 156	Tut 03 WF 13:00 - 13:50 in MS 156
Tut 04 WF 14:00 - 14:50 in MS 156	Tut 05 MW 12:00 - 12:50 in MS 119	

4. Scheduled Out-Of-Class Activities

There are no scheduled out of class activities for this course.

5. Additional Course Delivery Details

No course textbooks need to be bought. Content can be found in course slides or open textbook resources.

There are office hours (earlier noted in outline). Students should attend these for questions about course material or the course project.

6. Course Site & Materials

Course Website: https://pages.cpsc.ucalgary.ca/~jwhudson/CPSC433F25/

D2L: CPSC 433 L01-(Fall 2025)-Artificial Intelligence

Technology:

In order to successfully engage in their learning experiences at the University of Calgary, students taking online, remote and blended courses are required to have reliable access to the following technology:
- A computer with a supported operating system, as well as the latest security, and malware updates;
- A current and updated web browser;
- Webcam/Camera (built-in or external);
- Microphone and speaker (built-in or external), or headset with microphone;
- Current antivirus and/or firewall software enabled;
- Stable internet connection.

For more information please refer to the UofC ELearning online website.

Lecture slides, project information, and assignments will be posted on course website.

D2L will be used primarily for sensitive content, project submissions like proposal/final code, and returning/viewing of grades.

7. Approved Mandatory & Optional Course Supplemental Fees

There are no mandatory or optional course supplemental fees for this course.

8. **Requisites**

See section 3.5.C in the Faculty of Science section of the online Calendar.

Prerequisite(s):

Computer Science 313 or 351; and Philosophy 279 or 377.

Course Learning
9. **Outcomes**

- By the end of the course students will be expected to explain the basic search paradigms used in AI systems using appropriate terminology
- By the end of the course students will be expected to evaluate the usefullness of a given search paradigm for a given application problem
- By the end of the course students will be expected to apply a given basic search paradigm to a given application problem
- By the end of the course students will be expected to explain the basic knowledge representation methods used in AI systems using appropriate terminology
- By the end of the course students will be expected to evaluate the usefulness of a given knowledge representation method for a given knowledge representation application problem

B. **Assessment and Evaluation Information**

1. **Assessment Components**

The University policy on grading and related matters is described in F.1and F.2 of the online University Calendar.

In determining the overall grade in the course the following weights will be used:

Component	Weight	Due Date	Modality	Location
Midterm [1]	15%	Oct 16 2025 at 12:30 pm (75 Minutes)	in-person	ST 141
Project Proposal Paper [2]	20%	Oct 26 2025		
Assignment [3]	5%	Nov 14 2025		
Final Project Submission [4]	30%	Dec 08 2025		
Registrar Scheduled Final Exam[5]	30%	Final Exams Schedule	in person	Final Exams Schedule

[1] Scheduled in-class. First half of course material.

[2] Symbolic AI search. Team project. Written paper. Chance for feedback before final submission via scheduled meeting with team, Final submission to D2L dropbox

[3] Connective AI neural network individual assignment.

[4] Symbolic AI search. Team project. In-person assessment lab demos will be scheduled in Mon-Fri (Dec 1 - Dec 5) before this final submission the following Dec 8, Final submission to D2L dropbox

[5] Cumulative course material

Each of the above components will be given a letter grade using the official university grading system (see section F.1.1). The final grade will be calculated using the grade point equivalents weighted by the percentages given above and then converted to a final letter grade using the official university grade point equivalents.

The Final Examination Schedule will be published by the Registrar's Office approximately one month after the start of the term.

Assessment &
2. **Grading**

Reappraisal of Graded Term Work and Final Grades:

See Section I of the University Calendar and https://science.ucalgary.ca/current-students/undergraduate/program-advising/grade-reappraisals-and-appeals .

Examination
3. **Policy**

Midterm will be individual in-class assessment (75 minutes).

Final will be individual assessment and registrar scheduled (120 minutes).

No aids are allowed on tests or examinations.

Projects are group work and students are expected to collaborate within their group. Student are not allowed to collaborate with other groups and should seek answers to project questions only from the instructor or the teaching assistants.

Assignments are individual work and students should only seek help from the instructor or teaching assistants.

See also of the Calendar, on Academic Assessments and Examinations.

4. **Missed Components of Term Work**

The individual **assignment** submitted within 24 hours of the initial deadline will receive 10% off, within 48 hours 20% off. After that the assignment will be an F. Any request for an altered deadline should come the Friday a week before the **assignment** deadline. Later emergency long-term requests will be reviewed on a case by case basis by the instructor. Students will be required to provide evidence such as through the FoS missed term work form, office hours, or by email. Any documentation collected will be handled according to university policies and regulations around its collection.

The **project proposal** paper and final submission are group work and missed work will not be accepted without prior instructor agreed upon plan with group for a missed deadline. Any request for an altered deadline should come the Friday a week before the **project** deadlines.

A student with a missed **midterm exam** can request its weighting be transferred to the **final exam** (not recommended due to challenge of **final exam** and already larger weighting).

The deferred **final exam** policies for the university apply to a missed **final exam**.

See also Sections and of the Calendar, on Absence from In Course Assessments and Supporting Documentation for Absences.

C. **Course Policies & Procedures**

1. **Equity Diversity & Inclusion**

The University of Calgary is committed to creating an equitable, diverse and inclusive campus, and condemns harm and discrimination of any form. We value all persons regardless of their race, gender, ethnicity, age, LGBTQIA2S+ identity and expression, disability, religion, spirituality, and socioeconomic status. The Faculty of Science strives to extend these values in every aspect of our courses, research, and teachings to better promote academic excellence and foster belonging for all.

2. **Course Communication**

Students must use their U of C account for all course correspondence.

Students must use their U of C account for all course correspondence (university email filters flag many email addresses outside of the ucalgary.ca email network as spam)

Course communication policy: An optional community discussion platform will be used for the semester (Discord). You are not required to participate and no information or assessment will occur using the platform. We will reply to the discussion board, post notices, and send emails between 8:30am-4:30pm on Monday-Friday. We will do our best to read and respond to posts/emails within 24 hours Monday-Friday, and those received during the weekend by the end of the following Monday. If you do not receive a response within this time frame, please follow up in email (sometimes emails or discussion posts are lost in spam filters or mistakenly overlooked!).

3. **Academic Integrity and Misconduct**

Academic integrity is the foundation of the development and acquisition of knowledge and is based on values of honesty, trust, responsibility, and respect. We expect members of our community to act with integrity. Research integrity, ethics, and principles of conduct are key to academic integrity. Members of our campus community are required to abide by our institutional Code of Conduct and promote academic integrity in upholding the University of Calgary's reputation of excellence. Some examples of academic misconduct include but are not limited to: posting course material to online platforms or file sharing without the course instructor's consent; submitting or presenting work as if it were the student's own work; submitting or presenting work in one course which has also been submitted in another course without the instructor's permission; borrowing experimental values from others without the instructor's approval; falsification/fabrication of experimental values in a report. Please read the following to inform yourself more on academic integrity:

Student Handbook on Academic Integrity
Policy and Procedure for Student Academic Misconduct
Faculty of Science Academic Misconduct Process
Research Integrity Policy

Additional information is available on the Student Success Centre Academic Integrity page

4. **Acceptable & Prohibited Tools and Resources**

For the **project proposal** limited use of generative AI in writing assistance is acceptable. For example, grammar suggestion. The produced content is highly logical and specific for this written assessment so larger use of generative AI will produce illogical and incorrect results. Such illogical and incorrect statements will be punished strongly in the grading document as this is a core requirement in its assessment. Learners are ultimately accountable for the work they submit. Use of AI tools must be documented in an appendix for the **proposal**. The documentation should include what tool(s) were used, how they were used, and how the results from the AI were incorporated into the submitted work. Failure to cite the use of AI generated content in the proposal will be considered a breach of academic integrity and subject to Academic Misconduct procedures.

If generative AI is used during **project code** production during the final project, it should be commented in the code and the tools used noted in the comment. Code for this project will be highly unique in its core functionality and generative AI is not recommended for core functionality. Failure to cite the use of AI generated content in the **project code** documentation will be considered a breach of academic integrity and subject to Academic Misconduct procedures.

For the **assignment** limited use of generative AI in writing assistance is acceptable. For example, grammar suggestion, or code suggestion tools for programming. Programming or text that is largely generative AI produced is not allowed. Learners are ultimately accountable for the work they submit. Use of AI tools must be documented in an appendix for the assignment. The documentation should include what tool(s) were used, how they were used, and how the results from the AI were incorporated into the submitted work. Failure to cite the use of AI generated content in the **assignment** will be considered a breach of academic integrity and subject to Academic Misconduct procedures.

5. **Writing Across the Curriculum**

Writing skills are not exclusive to English courses and, in fact, should cross all disciplines. The University supports the belief that throughout their University careers, students should be taught how to write well so that when they graduate their writing abilities will be far above the minimal standards required at entrance. Consistent with this belief, students are expected to do a substantial amount of writing in their University courses and, where appropriate, members of faculty can and should use writing and the grading thereof as a factor in the evaluation of student work. The services provided by the [Writing Support](#) , part of the [Student Success Centre](#), can be utilized by all undergraduate and graduate students who feel they require further assistance. See also [Section E.2](#) of the University Calendar.

6. **Academic Accommodations**

It is the student's responsibility to request academic accommodations according to the University policies and procedures listed below. The student accommodation policy can be found at: https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Student-Accommodation-Policy.pdf

Students needing an accommodation because of a disability or medical condition should communicate this need to Student Accessibility Services in accordance with the Procedure for Accommodations for Students with Disabilities: https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Accommodation-for-Students-with-Disabilities-Procedure.pdf.

Students needing an accommodation in relation to their coursework or to fulfil requirements for a graduate degree, based on a Protected Ground other than Disability, should communicate this need, by filling out the [Request for Accommodation in Academic Courses Form](#) and sending by email to science@ucalgary.ca preferably 10 business days before the due date of an assessment or scheduled absence.

7. **Instructor Intellectual Property.**

All students are required to read the University of Calgary policy on Acceptable Use of Material Protected by Copyright ([ucalgary.ca/legal-services/university-policies-procedures/acceptable-use-material-protected-copyright-policy](#)) and requirements of the copyright act ([laws-lois.justice.gc.ca/eng/acts/C-42/index.html](#)) to ensure they are aware of the consequences of unauthorized sharing of course materials (including instructor notes, electronic versions of textbooks etc.). Students who use material protected by copyright in violation of this policy may be disciplined under the Non-Academic Misconduct Policy.

8. **Recording of Lecture**

Audio recording of lectures, other than where an audio recording is an accommodation, shall be permitted for individual private study only at the discretion of the instructor. For any other use, whether by duplication, transcription, publication, sale or transfer of recordings, written approval must be obtained from the instructor for the specific use proposed. Any use other than that described above constitutes academic misconduct and may result in suspension or expulsion. For more information, see [Section E.6](#) Recording of Lectures of the University Calendar.

9. **Freedom of Information & Privacy**

This course is conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIPP). Students should identify themselves on all written work by placing their name on the front page and their ID number on each subsequent page. For more information, see [Legal Services](#) website.

10. **Human & Living Organism Studies Statements**

Students will not participate as subjects or researchers in human studies.

See also [Section E.5](#) of the University Calendar.

D. **Copyright Legislation**

All course materials (including those posted on the course D2L site, a course website, or used in any teaching activity such as (but not limited to) examinations, quizzes, assignments, laboratory manuals, lecture slides or lecture materials and other course notes) are protected by law. These materials are for the sole use of students registered in this course and must not be redistributed. Sharing these materials with anyone else would be a breach of the terms and conditions governing student access to D2L, as well as a violation of the copyright in these materials, and may be pursued as a case of student academic or [non-academic misconduct](#), in addition to any other remedies available at law.

E. **Support & Resources**

Student well-being and safety resources that are not course-specific can be found on the Office of the Registrar's website: https://www.ucalgary.ca/registrar/registration/course-outlines

Electronically Approved - Aug 07 2025 13:46

Department Approval