



Prescription

This course looks at the range of applications of artificial intelligence in the world of today and the future. It surveys the kinds of problem that can be solved with AI technology and techniques and considers the implications and consequences of using AI technology in these applications. It will discuss the positive and negative outcomes and the ethical issues and principles that need to be considered when creating technological solutions using AI.

Course learning objectives

Students who pass this course should be able to:

1. Identify potential applications of Artificial Intelligence in a wide variety of domains.
2. Explain a range of different AI techniques and their strengths, limitations, and applicability.
3. Critically discuss the possible consequences and ethical implications of applying AI techniques to a task or domain.
4. Critically evaluate research papers and popular articles describing AI techniques and applications.

Course content

2022: The course is primarily offered in-person, and there are components such as seminars and presentations which require in-person attendance. There will be remote alternatives for all the components of the course, but these are only available to students studying from outside the Wellington region. Lectures will involve lots of interactive discussions and recordings will NOT be made available (to allow for free and open discussion), except in exceptional circumstances. Remote students must attend the lectures at the scheduled lecture times via Zoom in order to participate in the critical discussion. The remote option for assessment will use Zoom.

Students taking this course remotely must have access to a computer with camera and microphone and a reliable high speed internet connection that will support real-time video plus audio connections and screen sharing. Students must be able to use Zoom; other communication applications may also be used. A mobile phone connection only is not considered sufficient. The computer must be adequate to support the practical work required by the course: almost any modern windows, macintosh, or unix laptop or desktop computer will be sufficient, but an Android or IOS tablet will not.

Required Academic Background

The course builds on relevant knowledge and generic skills from an undergraduate programme. Students who do not have a background in computer science or artificial intelligence techniques will be expected to have knowledge about some relevant topics such as ethics, law, science/technology and society, or information systems. Students with no relevant background knowledge should expect to have to do additional, self-directed reading in order to gain the relevant background.

Withdrawal from Course

Withdrawal dates and process:

<https://www.wgtn.ac.nz/students/study/course-additions-withdrawals>

Lecturers

Dr Andrew Lensen (Coordinator)

andrew.lensen@vuw.ac.nz 04 886 5336

CO 354 Cotton Building (All Blocks), Gate 7, Kelburn Parade, Kelburn

[Kirita-Rose Escott](#) and [Hayden Andersen](#) will teach parts of the course. There will also be

various guest lecturers from around the university (and beyond)!

Teaching Format

This course will be offered in person and online. For students in Wellington, there will be a combination of in-person components and web/internet-based resources. It will also be possible to take the course entirely online for those who cannot attend on campus, with all the components provided in person also made available online. This course is very interactive in nature and students will be expected to attend synchronously (i.e. at the scheduled lecture time) even if taking the course remotely.

Two hours of seminars per week, plus weekly student presentations or debates in the later half of the course.

Student feedback

This course was first offered in 2021. In 2021, this course received a very positive student evaluation, with a few suggestions around improving the experience of groupwork, guest lectures, and assessment clarity. These comments have informed the refinement of the course in 2022.

Dates (trimester, teaching & break dates)

- Teaching: 11 July 2022 - 14 October 2022
- Break: 22 August 2022 - 04 September 2022
- Study period: 17 October 2022 - 20 October 2022
- Exam period: 21 October 2022 - 12 November 2022

Class Times and Room Numbers

11 July 2022 - 21 August 2022

- **Monday** 16:10 - 17:00 – LT105, Alan MacDiarmid Building, Kelburn
- **Thursday** 16:10 - 17:00 – LT105, Alan MacDiarmid Building, Kelburn

05 September 2022 - 16 October 2022

- **Monday** 16:10 - 17:00 – LT105, Alan MacDiarmid Building, Kelburn
- **Thursday** 16:10 - 17:00 – LT105, Alan MacDiarmid Building, Kelburn

Other Classes

In the second half of the course, a third class slot (Tuesday 4:10-5:00 pm in AM103), will be used for presentations and debates.

Set Texts and Recommended Readings

Required

Mandatory, recommended, and supplementary readings will be updated regularly at <https://rl.talis.com/3/victoria/lists/4DEF015B-D80E-31C9-C199-34AF43C6F9D7.html>

Mandatory Course Requirements

There are no mandatory course requirements for this course.

- However, failing to attend at least 10 of the 12 student-led sessions (presentations and debates) will limit your grade to a maximum of a C. Exceptional circumstances that will prevent a student from meeting this should be discussed with the course co-ordinator as early as possible.

If you believe that exceptional circumstances may prevent you from meeting the mandatory course requirements, contact the Course Coordinator for advice as soon as possible.

Assessment

This course is internally assessed.

Failing to attend at least 10 of the 12 student-led sessions (presentations and debates) will limit your grade to a maximum of a C. Exceptional circumstances that will prevent a student from meeting this should be discussed with the course co-ordinator as early as possible.

Assessment Item	Due Date or Test Date	CLO(s)	Percentage
Short reading logs on assigned readings.	Weeks 2 and 4	CLO: 4	5%
Group seminar #1 (Summary notes, presentation, student-led discussion).	Week 5 (hand-in), week 5/6 (seminar)	CLO: 1,2	5%
Short reflective report on another group's seminar.	Week 6	CLO: 3,4	2%
Structured survey of the AI methods used in applications within a specific domain.	Week 7	CLO: 1,2,3,4	25%
Group seminar #2 (Summary notes, presentation, student-led discussion).	Week 8 (hand-in), week 8/9 (seminar)	CLO: 1,2,3,4	15%
Short reflective report on another group's seminar.	Week 11	CLO: 3,4	8%
Participation in a structured debate on the future of AI.	Weeks 11/12	CLO: 3	0%
Capstone report investigating the applications and implications of AI in a specific application area. A variety of assessment formats will be accepted (subject to course coordinator approval), which may involve written, programming, analysis, and/or interactive/multimedia components.	During the assessment period.	CLO: 1,2,3,4	40%

Penalties

The penalty for assessment that is handed in late without prior arrangement is one grade reduction per day. Assessment that is more than one week late will not be marked.

Extensions

Individual extensions will only be granted in exceptional personal circumstances, and should be negotiated with the course coordinator before the deadline whenever possible. Documentation (eg, medical certificate) may be required.

Submission & Return

All work will need to be submitted through the ECS submission system, accessible through the course web page. Marks and comments will be returned through the ECS marking system, also available through the course web page. Marks will be returned within two weeks wherever possible.

Turnitin will be used to check for plagiarism in written assessments.

Group Work

The two student-led seminars will involve groupwork, up to a maximum of 15% of the final grade.

Workload

The student workload for this course is 150 hours.

Teaching Plan

See https://ecs.wgtn.ac.nz/Courses/AIML430_2022T2/LectureSchedule

Communication of Additional Information

All online material for this course can be accessed at https://ecs.wgtn.ac.nz/Courses/AIML430_2022T2/

Links to General Course Information

- Academic Integrity and Plagiarism: <https://www.wgtn.ac.nz/students/study/exams/integrity-plagiarism>
- Academic Progress: <https://www.wgtn.ac.nz/students/study/progress/academic-progress> (including restrictions and non-engagement)
- Dates and deadlines: <https://www.wgtn.ac.nz/students/study/dates>
- Grades: <https://www.wgtn.ac.nz/students/study/progress/grades>
- Special passes: Refer to the Assessment Handbook, at <https://www.wgtn.ac.nz/documents/policy/staff-policy/assessment-handbook.pdf>
- Statutes and policies, e.g. Student Conduct Statute: <https://www.wgtn.ac.nz/about/governance/strategy>
- Student support: <https://www.wgtn.ac.nz/students/support>
- Students with disabilities: https://www.wgtn.ac.nz/st_services/disability/
- Student Charter: <https://www.wgtn.ac.nz/learning-teaching/learning-partnerships/student-charter>
- Terms and Conditions: <https://www.wgtn.ac.nz/study/apply-enroll/terms-conditions/student-contract>
- Turnitin: <http://www.cad.vuw.ac.nz/wiki/index.php/Turnitin>
- University structure: <https://www.wgtn.ac.nz/about/governance/structure>
- VUWSA: <http://www.vuwsa.org.nz>

Offering CRN: [33072](#)

Points: 15

Prerequisites: 60 300-level pts

Duration: 11 July 2022 - 13 November 2022

Starts: Trimester 2

Campus: Kelburn