

COURSE SYLLABUS

CSCI 400: Computers and Society

CSCI 200: Artificial Intelligence, Data, and Society – Program Change from 2027

Class Time and Locations

Component	F26N01	F26N02	Location / format
Seminar	Monday - 12 pm – 1 pm	Wednesday - 12 pm – 1 pm	In person; 315/114
In-person lecture	Tuesday - 1 pm – 2:30 pm	Tuesday - 1 pm – 2:30 pm	In person; 200/106
Asynchronous module	Thursday - 1 pm – 2:30 pm	Thursday - 1 pm – 2:30 pm	VIULearn; no live attendance

Instructor Information

Instructor:	Ajay Shrestha, PhD
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Office Hours:	Wed: 1pm – 2:30 pm (via appointment only)

An introduction to artificial intelligence for students in all programs, emphasizing responsible use, privacy, and societal impacts. Topics include core AI methods (rules, search, machine learning, generative and conversational systems), data collection and surveillance, selected privacy concepts and models, algorithmic bias and fairness, professional codes of ethics, and emerging governance frameworks. Students critically analyze real-world AI applications in education, health, business, and public life, and develop practical guidelines for trustworthy AI use in their own disciplines. (3:1:0)

Course Website/Learning Management System

Access at: [VIU Learn](#)

Precluded Courses

Students with credit for CSCI 400 (Computers and Society) may not take the course CSCI 200 for further credit.

Course Prerequisites

Minimum 3 credits of university-level coursework (any discipline), or permission of the instructor. Note: No prior Computer Science or mathematics background is required.

Delivery Mode

Blended:

- Tuesday introduces the main concepts in synchronous in-person setting;
- Thursday extends or applies the main concept asynchronously with online content, quizzes, and reflection tasks;
- The following Monday/Wednesday seminar works with the completed material (discussion, activities, short case studies)

Study Days (November 9-13, 2026) is treated as a full reading/study break. There are no lectures, seminars, asynchronous modules, quizzes, reflections, project deadlines, or other required course activities during that week.

Course Objective

To introduce students from any program to the foundations of artificial intelligence and to the ethical, legal, and social questions that arise when AI systems rely on personal and societal data.

Learning Activities

for the course:

- Provide an intuitive overview of key AI paradigms (rules, search, machine learning, deep learning, generative models, reinforcement learning) and how they appear in everyday tools and platforms.
- Develop students' ability to map how data is collected, processed, and repurposed in AI systems, with emphasis on privacy, surveillance, and data trust.
- Introduce core concepts from moral philosophy, professional ethics, and data protection to support structured reasoning about AI-related decisions, drawing on models used in computer ethics courses.
- Enable students to critically evaluate AI applications in their own fields (e.g., education, business, health, media, public administration).
- Encourage responsible, reflective AI use and basic "AI literacy" for citizens, professionals, and future technologists.
- Introduce a small set of privacy decision-making frameworks (e.g., privacy calculus, communication privacy management, privacy ethics alignment in AI (PEA-AI) model, and the privacy paradox) as optional lenses students can use when analyzing AI and data practices.

for the student:

- Describe foundational AI paradigms (rule-based systems, search, machine learning, deep learning, generative models) and give real-world examples of each.
- Explain in high-level terms how contemporary AI systems (e.g., recommender systems, chatbots, image generators, smart speakers) are trained and deployed, and where data enters into these systems.
- Identify and map data flows, privacy risks, and surveillance practices in common AI-enabled services, including issues of consent, profiling, and secondary use of data.
- Explain, at an introductory level, how selected privacy frameworks (such as privacy calculus, communication privacy management, PEA-AI, and the privacy paradox) help describe privacy concerns and behaviours in AI-mediated environments.
- Apply basic ethical frameworks (e.g., consequentialist, rights-based, duty-based approaches) to analyze dilemmas involving AI, data use, and automation.
- Interpret professional codes and relevant privacy/governance principles to reason about the responsibilities of computing professionals and organizations deploying AI systems.
- Evaluate fairness, bias, explainability, reliability, and trust issues in AI-supported decision-making.
- Assess social, economic, and environmental impacts of AI, including implications for work, education, democratic processes, youth and vulnerable groups, and sustainability.
- Communicate clearly and professionally about AI risks, benefits, and trade-offs to technical and non-technical audiences.
- Formulate practical guidelines for responsible and privacy-respecting AI use in their own discipline or professional context.

Topics

✚ Unit 1 - What Is AI and Why Now? (Week 1)

- Everyday examples of AI (search, recommendations, translation, smart devices, generative tools).
- Key concepts: data, models, compute, connectivity.
- Distinguishing AI as a research field vs. AI as deployed infrastructure.

✚ Unit 2 - Core AI Paradigms (Weeks 2-3)

- Rules, expert systems, and search (games, route planning, scheduling).
- Machine learning basics: features, labels, training data, overfitting, evaluation.
- Deep learning and representation learning (intuition only).
- Generative and self-supervised models: next-token prediction, diffusion, embeddings.
- Reinforcement learning and feedback from human preferences.

✚ Unit 3 - Data, Privacy, and Surveillance Infrastructures (Weeks 4-5)

- Data lifecycle: collection, consent, logging, aggregation, sharing, retention.
- Surveillance capitalism, data brokers, and “shadow profiles.”
- Youth and smart-device contexts (voice assistants, apps, wearables, platforms).
- Canadian and international privacy frameworks at a conceptual level (e.g., PIPEDA principles, data minimization, purpose limitation, consent).
- Practical privacy measures: settings, permissions, data access requests.
- Selected privacy frameworks as conceptual tools: privacy calculus (risk-benefit trade-offs), communication privacy management (privacy boundaries and co-ownership), youth-focused models such as PEA-AI, and the privacy paradox.

✚ Unit 4 - Ethics, Professional Responsibility, and Data Governance (Weeks 6-7)

- Ethical theories relevant to computing: Consequences, duties, rights, virtue, care.
- Professional responsibility and computing as a profession; power and asymmetries between developers, platforms, users, and affected communities.
- Professional codes: ACM/IEEE Software Engineering Code of Ethics; CIPS Code; organizational AI principles.
- Legal documents in practice: terms of service, license agreements, NDAs, data-sharing agreements (conceptual level).
- Data governance: accountability, auditability, documentation, data trusts and stewardship.

✚ Unit 5 - Fairness, Bias, and Explainability in AI (Weeks 8-9)

- Where bias enters: Data collection, labeling, model design, deployment context.
- Case studies of algorithmic discrimination (hiring, recidivism, credit scoring, content moderation).
- Fairness notions (high-level) and trade-offs.
- Explainability and transparency: model cards, data sheets, user-facing explanations.
- Trust, reliability, and robustness in AI-supported decisions.

✚ Unit 6 - AI in Critical Domains (Week 10)

- AI in health and mental health support (triage, diagnostics, chatbots).
- AI in education (adaptive learning, grading, plagiarism detection, surveillance).
- AI in media and democracy (recommendation systems, generative misinformation, deepfakes).
- Security and safety: hacking, adversarial examples, “jailbreaking,” and responsible disclosure.

- 🚩 7 - AI Futures: Work, Environment, and Governance (Weeks 11)
 - Labour and automation: tasks vs. jobs, new roles, and re-skilling; critique of the “lump of labour” narrative.
 - Environmental footprint of training and operating large models; AI for sustainability vs. AI’s carbon cost.
 - Regulatory and governance directions (e.g., high-level overview of AI acts, standards, impact assessments, audits).
 - Social imaginaries of AI (utopian, dystopian, and pragmatic futures).
- 🚩 Unit 8 - Synthesis and Student Projects (Week 12)
 - Student group presentations of their final AI case study / mini–impact assessment.
 - Integrating technical understanding, privacy/ethics analysis, and discipline-specific implications.
 - Course wrap-up; revisiting initial assumptions about AI.

Recommended Lecture Texts

Most course materials will be provided through VIULearn. Materials may include instructor-authored notes, short videos, research-informed summaries, open educational resources, professional codes, policy documents, case studies, and selected scholarly or public-interest readings.

Recommended reference: Baase, S., & Henry, T. A Gift of Fire: Social, Legal, and Ethical Issues for Computing Technology (5th ed., 2018), or comparable current resources.

Student Evaluation

A. Weekly Online Quizzes (AI and Reading Checks) - 15%

- ❖ Short quizzes on core concepts from lecture/asynchronous content and readings.
- ❖ 10-12 quizzes.

B. Reflective “AI-in-Context” Posts - 15%

- ❖ Short (250-350 word) reflections linking course concepts to a concrete AI system, news item, or personal experience. One or more posts may optionally draw on a privacy framework introduced in Unit 3 (e.g., privacy calculus, communication privacy management, PEA-AI, privacy paradox).
- ❖ 5 posts across the term.

C. Midterm Test - 20%

- ❖ In-class, mixed format: short-answer, explanations of concepts, and a brief structured ethical analysis of a case. Questions may include basic recognition or short application of at least one privacy framework from Unit 3.
- ❖ Covers Units 1-3.

D. Group Project: AI Case Study and Impact Brief - 25%

- ❖ Groups of 3-4 analyze a real or proposed AI system (ideally chosen from their program areas) and produce:
 1. A short technical and data-flow overview (non-mathematical, but conceptually accurate).
 2. A privacy and data-governance analysis (mapping data, risks, protections).

3. An ethical and professional responsibility analysis using at least one framework and one professional code.
 4. A 2-3-page public-facing brief or infographic with recommendations for responsible deployment.
- Deliverables: written report + 5-8 minute in-class presentation in Week 13.
- Written report: 18%
 - Presentation: 7%

E. Participation in Seminars - 5%

- ❖ Contributions to discussions, in-class exercises, peer feedback.
- ❖ Rubric-based: preparation, constructive engagement, evidence-based reasoning, respectful interaction, and contribution to group work - not simply on how often a student speaks.

F. Final Exam (or Final Take-Home Exercise) - 20%

- ❖ Cumulative, with emphasis on Units 4-8.
- ❖ Combination of concept questions and one or two extended case analyses requiring students to integrate AI foundations, privacy/data considerations, ethics/professional responsibility, and societal impact. More detailed format information will be provided later in the term.

Grading Scheme

Max of 12 Quizzes	15%
Peer-review "AI-in-Context" Posts	15%
Group project	25%
Attendance and participation in Seminar	5%
Midterm Exam (TBD)	20%
Final Exam (data TBD)	20%
Total	100%

To pass the course, students must (a) complete the group project and (b) achieve at least 50% on the combined midterm + final exam components.

[Evaluation of Academic Achievement](#)

Late Policy & Other Assessment Policies

Late Work Policy

Late assignments will not be accepted.

There are no make-up tests.

All missed tests/Lab assignments will receive a zero for a grade.

However, if a student is unable to attend a lecture/lab or to complete an assessment on time for a valid reason they will be accommodated if they communicate their needs promptly.

For final grading, the following scale will be used. The instructor reserves the right to lower the numerical score required for a particular letter grade if that seems appropriate, but the same conversion will be applied to all persons in the class. Under no circumstances will the numerical score required for a particular letter grade be raised.

Grade	Percentage
A+	90-100%
A	85-89%
A-	80-84%

B+	76-79%
B	72-75%
B-	68-71%
C+	64-67%
C	60-63%
C-	55-59%
D	50-54%
F	0-49%

Institutional Grade Scale

[Grade Scale: University, Career/Technical, Adult Basic Education Programs](#)

Grade Descriptors

A+, A, A-	Outstanding performance and exceptional work. Considerable evidence of original thinking; demonstrated outstanding capacity to analyze and synthesize; evidence of extensive knowledge base.
B+, B, B-	Good performance and work has no major weaknesses. Evidence of grasp of subject matter, some evidence of critical capacity and analytical ability; reasonable understanding of relevant issues.
C+, C, C-	Satisfactory performance and adequate work. Shows fair comprehension of the subject matter and the ability to develop solutions to simple problems.
D	Marginal performance demonstrating a minimally acceptable familiarity with subject matter, critical and analytical skills.
F	Failing work – unsatisfactory performance or failure to meet course requirements.

Regrade policy

At times, you may feel that marks were unfairly deducted during an assignment or a test. In this situation, you can submit your work for a regrade.

We will only take regrades if they are submitted within 7 days of the marks for that assignment being released.

Also, note that we reserve the right to regrade the entirety of any assignment submitted. When requesting a regrade, your old grade will be removed, and your new grade could be higher or lower.

Missed Tests

If you miss a test, details of your absence may be shared with the S&T Dean's Office where it will be confidentially tracked. The Dean, or their designate, may reach out to you for more information related to your absence and to connect you with an appropriate student resource in support of your academic success.

Academic Integrity Statement

It is expected that students will know and abide by the VIU's policy on Student Academic Code of Conduct (Policy 96.01)

Standards of Academic Integrity

Academic integrity is central to the course. Students are expected to submit work that complies with VIU academic-integrity requirements and with the specific AI-use conditions stated for each

assessment. Using another person's work, unauthorized assistance, or AI-generated material in a manner not permitted by the assessment instructions may constitute academic misconduct. Students who require academic accommodations should connect with VIU Accessibility Services and communicate with the instructor as early as possible. Course materials and activities will be designed to support accessible participation where feasible. Students are encouraged to use appropriate VIU supports, including the Library, Writing Centre, Academic Advising, counselling/wellness resources, and other student services.

Any academic misconduct will be dealt with in accordance with policies in effect at VIU (96.01) and may result in a final grade of "F", a report to the Dean and a permanent record in the student's academic file. Multiple records may result in suspension from the University.

[Academic Integrity](#)

[Student Academic Code of Conduct](#)

[Policy 96.01](#)

Attendance Requirement & Absenteeism

Students are expected to attend scheduled lectures, laboratories, field trips, seminars, examinations, practical and work experience. The University reserves the right to cancel registration in any course or program because of lack of attendance (where attendance is deemed by the Department to be important).

VIU reserves the right to cancel any student's registration in a course if the student does not attend the first scheduled session of a course and does not notify the instructor or area secretary.

Absenteeism

Students are responsible for all material presented and discussed in lecture, in addition to assigned readings and homework problem. It is entirely the students' responsibility to recover any information or announcements presented in lectures from which they were absent by speaking to their fellow students.

Students who are absent should contact their instructors as soon as possible and report to their instructors again on return to classes. Extended absence from courses or program should be discussed with each instructor or program coordinator involved. Students are responsible for contacting their instructors, either directly or through the assistance of staff in the office of the appropriate Dean, as soon as an extended absence becomes apparent.

Specific regulations exist for absences due to illness, death in the family, religious observances, and VIU official sporting teams. In cases of religious observance and sporting events, discussion on the impact of your absence with your instructor needs to occur at least two weeks in advance of the absence.

[Attendance and Absences](#) | [Policy 96.05](#)

Student Code of Conduct/Conduct in Class

It is expected that students will always treat one another and the instructor with respect and dignity. Alcohol and drug use is prohibited during any course period, and in the hours prior to any laboratory/field/practicum period where impaired functioning is a safety hazard.

[Student Code of Conduct \(Non-Academic\)](#) | [Policy 32.05](#)

EDI Statement

VIU values human diversity in all its dimensions and is committed to achieving and ensuring learning and working environments that are equitable, diverse and inclusive.

[Academic Plan](#) | [EDI Action](#)

Other Supports (Advising, Counselling, Writing Center, Math Learning Centre, Accessibility Services)

VIU hosts numerous Learning Supports for student success and you are encouraged to take advantage of them. Links to each can be found on the [Resources for Students page](#). Students are strongly encouraged to review the information provided by Accessibility Services, Advising, Counselling, Math Learning Centre, the Office of Indigenous Education and Engagement, and the Writing Center.

Changes to the Syllabus

There may be revisions to the outline that are required once the semester begins.

If this happens, the syllabus will be updated, and students will be notified of the revision promptly.

If a revision is made to the syllabus, the intent is that the modification will be advantageous to the student.

Land Acknowledgement

We acknowledge and thank the Snuneymuxw, Quw'utsun and Tla'amin, on whose traditional lands we teach, learn, research, live and share knowledge. We pay our respect to the First Nations ancestors of this place and reaffirm our relationship with one another.

Fall 2026 Weekly Course Schedule

The schedule below is the planned course sequence. Small adjustments may be made to respond to class progress or important developments in AI; any change affecting an assessment deadline will be announced in VIULearn.

Week / dates	Tuesday in-person	Thursday asynchronous	Seminar focus	Assessment / notes
Launch Sep 9-11	No Tuesday class	Welcome/orientation: syllabus, VIULearn, AI-use expectations, baseline self-check (in-person only during 1 st week)	No Wednesday Seminar	No graded work
Teaching Week 1 Sep 14-18	Unit 1: What is AI and why now?	AI examples across disciplines; guided activity	Orientation/expectations; no assessed seminar content yet	Quiz 1
Teaching Week 2 Sep 21-25	Unit 2A: rules, expert systems, search	Interactive rule/search examples	Unit 1: “AI in my day” mapping	Quiz 2; Reflection 1 assigned
Teaching Week 3 Sep 28-Oct 2	Unit 2B: ML, deep learning, generative AI, RL	Low-code/no-code exploration of prediction/generation	Compare rule-based and learning-based solutions. N02 seminar does not meet Sep 30; equivalent activity provided after the holiday.	Quiz 3; Reflection 1 due
Teaching Week 4 Oct 5-9	Unit 3A: data lifecycle, profiling, surveillance, privacy risks	Data-flow mapping; consent, secondary use, retention, minimization	Unit 2B application: capability vs reliability	Quiz 4; Reflection 2 assigned
Teaching Week 5 Oct 12-16	No regular Tuesday lecture (Oct 13 follows Monday schedule)	Unit 3B: selected privacy concepts/models; practical privacy measures	Unit 3A privacy/data threat modelling. N01 meets Tue Oct 13 under Monday schedule; N02 meets Wed Oct 14.	Quiz 5; Reflection 2 due
Teaching Week 6 Oct 19-23	Midterm test - Units 1-3	Unit 4A: ethical reasoning and short cases	Unit 3B synthesis and midterm clarification	Midterm 20%; project brief released; no weekly quiz
Teaching Week 7 Oct 26-30	Unit 4B: professional responsibility and data governance	Codes, ToS/privacy-policy analysis, governance checklist	Structured ethics/professional responsibility case	Quiz 6; Reflection 3 assigned; teams formed
Teaching Week 8 Nov 2-6	Unit 5A: fairness and bias	Bias/fairness case analysis	Unit 4: legal/professional responsibility case	Quiz 7; Reflection 3 due; project topic checkpoint
STUDY DAYS Nov 9-13	No class	No required content	No seminar	No deadlines or required activity
Teaching Week 9 Nov 16-20	Unit 5B: explainability, transparency, trust, reliability	Model/data documentation and user-facing explanations	Analyze a documented AI failure/bias case	Quiz 8; Reflection 4 assigned; project research checkpoint
Teaching Week 10 Nov 23-27	Unit 6: AI in critical domains	Domain case rotation	Trust/explainability critique	Quiz 9; Reflection 4 due; project recommendations peer feedback
Teaching Week 11 Nov 30-Dec 4	Unit 7: work, environment, governance, futures	Impact assessments, audits, standards, scenario thinking	Institutional AI-deployment simulation	Quiz 10; Reflection 5 due; project near-final
Teaching Week 12 Dec 7-11	Unit 8: synthesis and final-exam review	Synthesis/review; optional practice	Final project presentations	Written project brief due; no new quiz; final exam date TBA

Course Practices and Expectations

Asynchronous Thursdays: Thursday modules are part of the course, not optional enrichment. Students should complete the assigned content and activity within the posted weekly window, so they are prepared for the following seminar.

Seminars: Both sections complete the same seminar activity. Where a University closure removes one section’s seminar, an equivalent activity will be provided with a reasonable completion window.

Evidence-based discussion: Many course issues do not have a single correct answer. Strong work explains a position, uses evidence and course concepts accurately, considers trade-offs, and communicates respectfully.

AI use in the course: Because responsible AI use is itself a course topic, some activities may explicitly allow or require generative AI tools while others may restrict them. Each assessment will state the permitted level of AI assistance. Students must follow the stated conditions and acknowledge AI assistance when required.

Course materials: Instructor-created slides, notes, cases, quizzes, assessment materials, and other course resources are provided for enrolled students. They may not be redistributed or uploaded to external services unless the instructor has given permission.