# EDUC 460.15 S01: Specialization I - Secondary Mathematics
Winter, 2026

Erin Spring

**Section information (times, class location, instructor) can be found in your my.ucalgary.ca portal. Your instructor will also confirm section information through your D2L course shell. Please check these sites prior to the start of the course.**

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 within Alberta (including Nose Hill Métis District 5 and Elbow Métis District 6).

Class Dates: Mondays and Fridays, January 12, 2026 – March 13, 2026

Last Day to Add/Drop/Swap: Due to the non-standard dates associated with this program, please check your Student Centre for the important dates pertaining to your section.

Pre-requisite: Due to the multiple pathways in the Bachelor of Education, please consult Undergraduate Programs in Education for questions related to pre-requisite courses.

Office Hours: By appointment only.

Email: Students are required to use a University of Calgary (@ucalgary.ca) email address for all correspondence.

## COURSE DESCRIPTION:

The intent of the Specialization I Seminar is to introduce students to the concepts, theory, and design planning
related to teaching within the specializations of Secondary Mathematics. Theory as connected to an understanding of practical classroom experiences will particularly inform the course curriculum and will be explored through course readings, analysis of teaching/learning artifacts, and through the design of discipline-
based learning and assessment plans. Topics in teaching and learning will include teaching inclusively and addressing the needs of diverse learners, effective integration of technology, and discipline-based inquiry. Assignments will present the opportunity for students to develop an understanding of short-term instructional
design and to begin to examine curriculum shifts in the province.

## LEARNER OUTCOMES:

By the end of the semester, students will:

1) develop a foundational understanding of the nature of discourse in the discipline, as related to teaching
and learning, including specialized language, concepts, and terminology;
2) understand teacher as designer of learning and assessment plans and use of the resources available for
designing learning and assessment;
3) explore and apply introductory theory related to the teaching of the discipline with an emphasis on: designing discipline-based tasks and assessment processes and creating an adaptive classroom learning
environment to better meet the needs of today's diverse learners; and
4) successfully design short-term learning and assessment plans to deepen understanding of key ideas/concepts within the discipline.

**COURSE DESIGN AND DELIVERY:** This course will be delivered face-to-face on campus with constant engagement in a D2L environment. Students will require access to a computing device that contains current software and hardware capable of running D2L. If you do not own a personal device, there are computers available for student use in the Doucette Library and the Taylor Family Digital Library. It is designed based on a design and inquiry-focused learning approach. Student participation is crucial to the knowledge building in this course. Formative assessment is embedded in the course. In particular, two learning tasks require submission of a draft for feedback before final submission.

**REQUIRED RESOURCES:**

Alberta Education (2010). Making a difference : meeting diverse learning needs with differentiated instruction. Government of Alberta. https://open.alberta.ca/publications/9780778586012

Gu, F., Huang, R. and Gu, L. (2017). Theory and development of teaching through variation in mathematics in China. In R. Huang & Y. Li (Eds.) *Teaching and learning mathematics through variation: Confucian heritage meets westerns theories* (pp. 13-41). Rotterdam, The Netherlands: Sense Publishers https://link-springer-com.ezproxy.lib.ucalgary.ca/chapter/10.1007/978-94-6300-782-5_2

Kirschner, P. A., Sweller, J., & Clark, R. E. (2006). Why Minimal Guidance During Instruction Does Not Work: An Analysis of the Failure of Constructivist, Discovery, Problem-Based, Experiential, and Inquiry-Based Teaching. *Educational Psychologist*, *41*(2), 75–86. https://doi-org.ezproxy.lib.ucalgary.ca/10.1207/s15326985ep4102_1

Hmelo-Silver, C. E., Duncan, R. G., & Chinn, C. A. (2007). Scaffolding and Achievement in Problem-Based and Inquiry Learning: A Response to Kirschner, Sweller, and Clark (2006). *Educational Psychologist*, *42*(2), 99–107. https://doi-org.ezproxy.lib.ucalgary.ca/10.1080/00461520701263368

Kullberg, A., Runesson Kempe, U., & Marton, F. (2017). What is made possible to learn when using the variation theory of learning in teaching mathematics? *ZDM: The International Journal on Mathematics Education, 49*(4), 559-569. https://link-springer-com.ezproxy.lib.ucalgary.ca/article/10.1007/s11858-017-0858-4

Leahy, S., Lyon, C., Thompson, M., & Wiliam, D. (2005). Classroom assessment: Minute by minute, day by day. *Educational Leadership, 63*(3), 18-24. https://pdo.ascd.org/LMSCourses/PD11OC101M/media/FA_M03_Reading_02_Classroom-Assessment.pdf

LearnAlberta (2025). Mathematics. Government of Alberta https://curriculum.learnalberta.ca/curriculum/en/area/MAT

Liu, S. (2025). Backward instructional design in high school mathematics based on the alignment of teaching, learning, and assessment. *Education Insights 2*(7). 1-10. https://doi.org/10.70088/w0qa1a53

Mårtensson, P., Runesson, K. U., Hansson, H. (2024). Practicing variation theory beyond learning study. *International Journal for Lesson and Learning Studies 13*(5), 49-60. https://ucalgary.primo.exlibrisgroup.com/permalink/01UCALG_INST/15o3ob6/cdi_unpaywall_primary_10_1108_ijlls_01_2024_0012

Mason, J., Burton, L., & Stacy, K. (2010). Thinking Mathematically (2nd Edition, chapters 1, 2). New York: Prentice Hall. First two chapter available online:

https://www.pearsonhighered.com/assets/samplechapter/m/a/s/o/Mason%20-%20Chapter%201.pdf

https://www.pearsonhighered.com/assets/samplechapter/m/a/s/o/Mason%20-%20Chapter%202.pdf

Math Minds (2025). Math Minds. https://mathminds.ca/

Mowat, E. M. (2005). Embodied mathematics and education. *Delta-K 42*(2), 22-29. https://ucalgary.alma.exlibrisgroup.com/leganto/public/01UCALG_INST/citation/27016568290004336?auth=SAML

Sinclair, N., Watson, A., Zazkis, R., & Mason, J. (2011). The structuring of personal example spaces. The Journal of Mathematical Behavior, 30(4), 291–303. https://ucalgary.primo.exlibrisgroup.com/permalink/01UCALG_INST/15o3ob6/cdi_eric_primary_EJ943277

Skemp, R. (1976). Relational understanding and instrumental understanding. The Arithmetic Teacher, 26, 9-15. [Available through U of C library] http://www.jstor.org.ezproxy.lib.ucalgary.ca/stable/41187667

Stockero, S. L., Van Zoest, L. R., Kinzel, M. & Cavey, L. (May, 2011). Making student thinking public. *Mathematics Teacher, 104*(9) 704-709. [available online through U of C library] http://www.jstor.org.ezproxy.lib.ucalgary.ca/stable/20876997

Shute, V. J. (2008). Focus on formative feedback. Review of Educational Research, 78(1), 153–189. https://ucalgary.primo.exlibrisgroup.com/permalink/01UCALG_INST/15o3ob6/cdi_unpaywall_primary_10_3102_0034654307313795

Terban (2025). Math metaphors: Understanding figures of speech in mathematics. Linguistic Guide. https://linguisticsguide.com/metaphors-for-math/

Wilhite, T. (2025). Math metaphors: understanding mathematical concepts through language. SlackList. https://slacklist.info/metaphors-for-math/

## ADDITIONAL RESOURCES:

Davis, B. (2013). Teachers'-mathematics-knowledge-building communities. In Preciado Babb, A. P., Solares Rojas, A., Sandoval Cáceres, I. T., & Butto Zarzar, C. (Eds.). Proceedings of the First Meeting between the National Pedagogic University and the Faculty of Education of the University of Calgary. Calgary,

Canada: Faculty of Education of the University of Calgary. Retrieved from http://prism.ucalgary.ca/handle/1880/49708

Davis, B. & Preciado Babb A. P. (2015a). Elementary mathematics instruction and student diversity. In J. J. W. Andrews and J. L. Lupart (Eds.), *Diversity Education: Understanding and Addressing Diversity* (pp. 393-422). Nelson Education Limited. https://ucalgary.alma.exlibrisgroup.com/leganto/public/01UCALG_INST/citation/27016873510004336?auth=SAML

Davis, B. & Preciado Babb A. P. (2015b). Secondary mathematics instruction and student diversity, in J. J. W. Andrews and J. L. Lupart (Eds.), *Diversity Education: Understanding and Addressing Diversity* (pp. 520-547). Nelson Education Limited https://ucalgary.alma.exlibrisgroup.com/leganto/public/01UCALG_INST/citation/27016884030004336?auth=SAML

Friesen, S. (2009). *What did you do in school today? Teaching effectiveness: A framework and rubric.* Toronto: Canadian Education Association. Retrieved from: https://www.edcan.ca/articles/what-did-you-do-in-school-today-teaching-effectiveness-a-framework-and-rubric/

Lakoff, G. & Núñez, R. (2000). Where mathematics come from. New York, NY: Basic Books. https://ucalgary.primo.exlibrisgroup.com/permalink/01UCALG_INST/46l39d/alma991002732969704336

Mathematics Working Group, Alberta Education (2016). Mathematics review: Report to Premier and Minister. Alberta Education. https://education.alberta.ca/media/3402136/final_mathematics-curriculum-review_05dec16pdf.pdf

Martinez, A. A. (2006). Chapter 3. History: Much ado about less than nothing. In A. A. Martinez, Negative math: How mathematical roles can be positively bent, (pp. 18-42). Princeton, NJ: Princeton University Press. https://ebookcentral-proquest-com.ezproxy.lib.ucalgary.ca/lib/ucalgary-ebooks/reader.action?docID=5675276&ppg=31

Noël, M.-P., & Karagiannakis, G. (2022). *Effective teaching strategies for dyscalculia and learning difficulties in mathematics: Perspectives from cognitive neuroscience*. Routledge. https://ucalgary.primo.exlibrisgroup.com/permalink/01UCALG_INST/46l39d/alma991031138388504336

Preciado-Babb, A.P., Solares-Rojas, A., Peña, F., Ortiz, A., Sandoval-Rosas, M., Soriano-Velasco, R., Carrión-Vázquez, V. & Farrugia-Fuentes, M. (2018). Exploring perspectives on mathematical modelling: a literature survey. In E. Bergqvist, M. Österholm, C. Granberg, & L. Sumpter (Eds.). *Proceedings of the 42nd Conference of the International Group for the Psychology of Mathematics Education* Vol. 4, pp. 3-10. Umeå, Sweden: PME. https://weizmann.elsevierpure.com/ws/files/112548337/PME%2042%20Proceedings%20Vol%204.pdf#page=14

Peat, F. D. (nd.). Blackfoot physics and European minds. Pari Center. https://paricenter.com/librarynew/indigenous-ways-of-knowing/blackfoot-physics-and-european-minds/

Stavros, G. S., & Murphy, M. S. (2019). Identity-making through Cree mathematizing. *Canadian Journal of Education*, 43(3), 692-714 https://journals.sfu.ca/cje/index.php/cje-rce/article/view/3851

## Learning Tasks Overview

| LEARNING TASK | DESCRIPTION OF LEARNING TASK | GROUP / INDIVIDUAL | WEIGHT | DUE DATE |
|---|---|---|---|---|
| LT 1 | Critical Reflection<br>This task aligns with the following learning outcomes:<br>• develop a foundational understanding of the nature of discourse in the discipline, as related to teaching and learning, including specialized language, concepts, and terminology;<br>• understand teacher as designer of learning and assessment plans and use of the resources available for designing learning and assessment; and<br>• explore and apply introductory theory related to the teaching of the discipline with an emphasis on: designing discipline-based tasks and assessment processes and creating an adaptive classroom learning environment to better meet the needs of today's diverse learners; | Individual | 30% | Ongoing |
| LT 2 | Exploration of Mathematics Knowledge for Teaching: Selected Concept<br>This task aligns with the following learning outcome:<br>• develop a foundational understanding of the nature of discourse in the discipline, as related to teaching and learning, including specialized language, concepts, and terminology. | Group | 30% | Draft: Feb 6<br>Final: Feb 13 |

| LEARNING TASK | DESCRIPTION OF LEARNING TASK | GROUP / INDIVIDUAL | WEIGHT | DUE DATE |
|---|---|---|---|---|
| LT 3 | Creation of Short-term Learning and Assessment Plan<br>This task aligns with the following learning outcomes:<br>• understand teacher as designer of learning and assessment plans and use of the resources available for designing learning and assessment;<br>• explore and apply introductory theory related to the teaching of the discipline with an emphasis on: designing discipline-based tasks and assessment processes and creating an adaptive classroom learning environment to better meet the needs of today's diverse learners; and<br>• successfully design short-term learning and assessment plans to deepen understanding of key ideas/concepts within the discipline. | Individual | 40% | Draft: Mar 6<br>Final: Mar 13 |

The final grade will be calculated by adding the grades of each task.

## WEEKLY COURSE SCHEDULE:

| Date | Topic | Readings and Tasks | Due Dates |
|---|---|---|---|
| **Week 1** Jan 12-16 | What is mathematics, and why should we teach it? | Mason's et al. (2010), Chapters 1 and 2 | LT 1: Jan 16 |
| **Week 2** Jan 19-23 | Different ways of teaching | Skemp (1976).<br>Kirschner et al. (2006)<br>Hmelo-Silver (2007) | LT 1: Jan 23 |
| **Week 3** Jan 26-30 | Mathematical concepts across the curriculum | LearnAlberta (2025): Read the program of studies for 7-9 and 10-12 | LT 1: Jan 30 |
| **Week 4** Feb. 2-6 | Metaphors in Mathematics | Read Mowat (2005)<br>Peer through:<br>Terban (2025)<br>Wilhite (2025) | LT 1: Feb 6<br>LT 2 (draft): Feb 6 |
| **Week 5** Feb. 9-13 | Teaching through variation | Kullberg et al. (2017)<br>Mårtensson et al. (2024). | LT 2: Feb 13 |
| **Week 6** Feb. 16-20 | Term Break | | |
| **Week 7** Feb. 23-27 | The role of examples | Sinclair et al. (2011).<br>Math Minds (2025). Register in the course and go through Lessons 1 and 2 | LT 1: Feb 27 |
| **Week 8** Mar. 2-6 | Lesson Plans | Shute (2008): Tables 1 to 5<br>Liu (2025) | LT 1: Mar 6<br>LT 3 (draft): Mar 6 |
| **Week 9** Mar. 9-13 | | Alberta Education (2010): Chapters 1 and 12 | LT 3: Mar 13 |

## CHANGES TO SCHEDULE:

Please note that changes to the schedule may occur to meet the emerging needs and dynamics of the participants in the course.

## LEARNING TASKS AND ASSESSMENT

The use of generative AI (GAI) is permitted in this course. Students may use GAI tools for idea generation, concept clarification, initial exploration on a project, narrowing scope, outlining, finding initial sources and gathering/formatting references, getting feedback on draft and details, and creating titles or headings.

Students are responsible for all material produced by GAI as if they are the author (e.g., responsible for all matters related to copyright, academic misconduct, etc.). For further insights, the Taylor Institute has created some guiding resources and principles: https://teaching-learning.ucalgary.ca/resources-educators/generative-ai-teaching-and-learning

If you have questions about a specific use of other GAI tools, please contact your instructor.

There are three required Learning Tasks for this course.

1. **LEARNING TASK 1: Critical Reflection - DUE: Fridays 11:59 pm**

   This task involves critical reflections on the discipline (mathematics), design of learning environments, and learning theories within mathematics education. Each week, you will respond to a reflection prompt through a discussion forum in D2L. The response should be between 200 and 300 words long, or an equivalent if using an alternative format (e.g. images, audio or video).

### CRITERIA FOR ASSESSMENT OF LEARNING TASK 1

This task will be assessed based on the number and quality of responses. There are six reflection entries (5% of the final grade each). Each reflection should:

- respect the length limit;
- address the questions or instructions in the prompts;
- connect to the content of the course; and
- communicate using academic language, including references using APA 7 format.

Further details for the assessment criteria will be provided in class.

2. **LEARNING TASK 2: Exploration of Mathematics Knowledge for Teaching: Selected Concept – DUE:**
   **Draft: Feb. 6**
   **Final: Feb. 13**

   This task involves an exhaustive analysis of a relevant mathematical concept in the program of studies. For instance, the concept of addition has multiple meanings at the elementary level. In high school, this concept extends to the addition of other mathematical objects (e.g. functions and coordinates). The addition also relates directly to the concept of integral.
   The analysis should include:
   - a historical development of the concept, including implications for teaching and learning;
   - identification of key metaphors used to make meaning of the concept and its implications for learning;
   - a map identifying related concepts and mathematical objects, and ideas; and

- a visual showing how the concept develops through different grade levels.

### Criteria For Assessment of Learning Task 2

The draft will be graded by completion (5% of the final mark). That is, you will receive a full mark by submitting a draft that addresses all the elements of the plan.

The following criteria will be used to assess the final work (25% of the final grade):

- *Concept identification*. Clear identification of a relevant concept in mathematics.
- *Historical development*. Discussion of the historical development of the concept with implications for teaching and learning.
- *Metaphors*. Deep analysis of how different metaphors support or hinder the learning of the targeted concept.
- *Relation with other concepts*. Identification of relevant mathematical ideas and concepts related to the targeted concept.
- *Curricular mapping.* Explanation of how the concept develops through the program of studies, including elementary levels.
- *Writing quality.* Clearly written and following standards of academic communication (e.g. following APA 7 style for referencing, punctuation and grammar, and use of figures and tables.

A rubric will be provided in class for this task.

## 3. Learning Task 3: Creation of Short-term Learning and Assessment Plan – Due:

**Draft: Mar. 6**
**Final: Mar 13**

Working individually, you will design an 80-minute, secondary-level mathematics lesson, following the Alberta Mathematics Program of Studies. The plan should follow a clear and comprehensive template, with a plan for inclusive instruction and assessment that promotes mathematical thinking and deep understanding of mathematical concepts. This assignment is intended to develop skills for lesson planning and design. It is highly recommended that you revise many lesson plans before designing one for this task. You are encouraged to build on an existing lesson plan, adapting and modifying it for this course. Being able to identify a good lesson and adapt it to your class is essential for classroom instruction.

In the lesson plan, you will also add annotations that provide explanations behind your thinking, choices, and a rationale on the theory behind such choices. Simply put, you will record on the lesson plan the reasons for the choices that you have made, how this lesson plan fits into the broader context of a unit as described in the Program of Studies, and the intended results of creating the lesson in the manner in which you have done. You should justify the pedagogical choices you make with references to the course readings, class discussions, and other sources.

### Criteria For Assessment of Learning Task 3

The draft will be graded by completion (5% of the final mark). That is, you will receive a full mark by submitting a draft that addresses all the elements of the plan.

The following criteria will be used to assess the final work (35% of the final grade):

- *Expected outcomes*. The plan should include explicit connections to Learning Outcomes from Alberta Education. Additional outcomes, such as promoting mathematical processes, can be included. You may also add other relevant outcomes not stated in the program of studies with a statement indicating why this is important.
- *Curricular mapping*. The plan should situate the lesson within a course of instruction, mapping how the intended content (e.g. learning outcomes) develops within and across grade levels.
- *Lesson Structure*. The plan should follow a clear and logical structure, detailing what students will be expected to do. Sequences of instructions, questions or prompts to students should be explicitly indicated.
- *Mathematical content*. Examples, questions and activities are carefully selected to focus students' attention on critical aspects of the mathematical ideas and concepts related to the lesson.
- *Inclusion*. Elements of UDL are included in the lesson plan. A fictitious scenario may be included to stress UDL strategies (e.g. 50% of students are ELL).
- *Assessment plan*. The lesson should involve multiple forms of formative assessment. Summative assessment might not be a part of the class (e.g. a quiz in a following session); however, an indication of such assessment has to be included in the plan. Assessment should be consistent with the expected learning outcomes and appropriate to the learning activities.
- *Annotations with explanations and rationale.* Explanations of the choices made for the lesson should be elaborated based on the content of the course. The rationale should clearly connect theory with the design of the lesson.
- *Writing quality.* Clearly written and following standards of academic communication (e.g. following APA 7 style for referencing, punctuation and grammar, and use of figures and tables.

A rubric will be provided in class for this task.

## THE EXPECTATION OF EXCELLENCE IN PROFESSIONAL WORK

Please review the Academic Calendar carefully. It describes the program and provides detailed schedules and important dates. It contains information on expectations for student work and professional conduct. In addition, procedures are described regarding concern about student performance in the program. Please pay especially careful attention to details and descriptions in the following topic areas:

- *The Importance of Attendance and Participation in Every Class*

As this is a professional program, experiences are designed with the expectation that all members will be fully involved in all classes and in all coursework experiences. As you are a member of a learning community your contribution is vital and highly valued, just as it will be when you take on the professional responsibilities of being a teacher. We expect that you will not be absent from class with the exception of documented instances of personal or family illness or for religious requirements.

- *Engagement in Class Discussion and Inquiry*

Another reason for the importance of attendance and participation in every class is that the course involves working with fellow students to share ideas and thinking. For example, each class you will work with a small group to engage fellow students in discussions on work being considered in class. You will also help other groups by providing ideas for scholarly inquiry in assignments. If you find that you are experiencing difficulties as a group collaborating, please inform the instructor.

## Expectations for Writing

All written assignments (including, to a lesser extent, written exam responses) will be assessed at least partly on writing skills. Writing skills include not only surface correctness (grammar, punctuation, sentence structure, etc.) but also general clarity and organization. Sources used in research papers must be properly documented. If you need help with your writing, you may use the writing support services in the Learning Commons. For further information, please refer to the official online University of Calgary Calendar, Academic Regulations, E. Course Information, E.2: Writing Across the Curriculum: https://calendar.ucalgary.ca/pages/2c2d1ce47b8c4d008aec9cc3da49876e

## Missing or Late Submissions

All late submissions of assignments must be discussed with the instructor **prior to the due date.** A deferral of up to 30 days may be granted at the discretion of the Associate Dean of Undergraduate Programs prior to the end of the course with accompanying written evidence.
https://calendar.ucalgary.ca/pages/jyekfh6xwhoHwxcetCi1

## Issues with Group Tasks

With respect to group work, if your group is having difficulty collaborating effectively, please contact the instructor immediately. If a group is unable to collaborate effectively or discuss course materials online in a timely manner, the instructor may re-assign members to different groups or assign individual work for completion.

**GRADING:** https://calendar.ucalgary.ca/pages/fc4adb8643f84441ab32300237b80df1

| Grade | GPA Value | % | Description per U of C Calendar |
|---|---|---|---|
| A+ | 4.0 | 95-100 | Outstanding |
| A | 4.0 | 90-94 | Excellent – Superior performance showing comprehensive understanding of the subject matter |
| A- | 3.7 | 85-89 | |
| B+ | 3.3 | 80-84 | |
| B | 3.0 | 75-79 | Good - clearly above average performance with knowledge of subject matter generally complete |
| B- | 2.7 | 70-74 | |
| C+ | 2.3 | 65-69 | |
| C | 2.0 | 60-64 | Satisfactory - basic understanding of the subject matter |
| C- | 1.7 | 55-59 | |

| | | | |
|---|---|---|---|
| D+ | 1.3 | 52-54 | Minimal pass - Marginal performance |
| D | 1.0 | 50-51 | |
| F | 0.0 | 49 and lower | Fail - Unsatisfactory performance |

**Academic Misconduct**
Academic Misconduct refers to student behavior which compromises proper assessment of a student's academic activities and includes cheating; fabrication; falsification; plagiarism; unauthorized assistance; failure to comply with an instructor's expectations regarding conduct required of students completing academic assessments in their courses; and failure to comply with exam regulations applied by the Registrar.

For information on the Student Academic Misconduct Policy and Procedure please visit:

https://www.ucalgary.ca/legal-services/university-policies-procedures/student-academic-misconduct-policy

https://www.ucalgary.ca/legal-services/university-policies-procedures/student-non-academic-misconduct-policy

Additional information is available on the Academic Integrity Website at: https://ucalgary.ca/student-services/student-success/learning/academic-integrity

**Academic Accommodation**
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://ucalgary.ca/student-services/access/prospective-students/academic-accommodations .

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 fulfill requirements for a graduate degree based on a Protected Ground other than Disability, should communicate this need, preferably in writing, to the designated contact person in their faculty. The course outline should clearly list the appropriate Faculty contact person(s) and their contact details. For further information see E.1 C. Course Policies and Procedures https://calendar.ucalgary.ca/pages/a89ecfbf758841b5983c4b67746e7846

**Research Ethics**
Students are advised that any research with human participants – _including any interviewing (even with friends and family), opinion polling, or unobtrusive observation – _must have the approval of the Conjoint Faculties Research Ethics Board (https://research.ucalgary.ca/conduct-research/ethics-compliance/human-research-ethics/conjoint-faculties-research-ethics-board-cfreb) or the Conjoint Health Research Ethics Board https://research.ucalgary.ca/conduct-research/ethics-compliance/human-research-ethics/conjoint-health-research-ethics-board-chreb

In completing course requirements, students must not undertake any human subjects research without discussing their plans with the instructor, to determine if ethics approval is required. Some courses will include assignments that involve conducting research with human participants; in these cases, the instructor will have applied for and received ethics approval for the course assignment. The instructor will discuss the ethical requirements for the assignment with the students.

For further information see E.5 Ethics of Human Studies
https://calendar.ucalgary.ca/pages/627ed88eb4b041b7a2e8155effac3501

**Instructor Intellectual Property**
Course materials created by instructors (including presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the instructor. These materials may NOT be reproduced, redistributed or copied without the explicit consent of the instructor. The posting of course materials to third party websites such as note-sharing sites without permission is prohibited. Sharing of extracts of these course materials with other students enrolled in the course at the same time may be allowed under fair dealing.

**Access and Privacy Office (Formerly) Freedom Of Information and Protection of Privacy**
Student information will be collected in accordance with typical (or usual) classroom practice. Students' assignments will be accessible only by the authorized course faculty. Private information related to the individual student is treated with the utmost regard by the faculty at the University of Calgary. For more information, please see: https://www.ucalgary.ca/legal-services/access-information-privacy

**Copyright Legislation**
All students are required to read the University of Calgary policy on Acceptable Use of Material Protected by Copyright (https://www.ucalgary.ca/legal-services/university-policies-procedures/acceptable-use-material-protected-copyright-policy) and requirements of the copyright act (https://laws-lois.justice.gc.ca/eng/acts/C-42/index.html) to ensure they are aware of the consequences of unauthorised 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 https://www.ucalgary.ca/legal-services/university-policies-procedures/student-non-academic-misconduct-policy.

**Sexual and Gender-Based Violence Policy**
The University recognizes that all members of the University Community should be able to learn, work, teach and live in an environment where they are free from harassment, discrimination, and violence. The University of Calgary's sexual violence policy guides us in how we respond to incidents of sexual violence, including supports available to those who have experienced or witnessed sexual violence, or those who are alleged to have committed sexual violence. It provides clear response procedures and timelines, defines complex concepts, and addresses incidents that occur off-campus in certain circumstances. Please see the policy available at https://www.ucalgary.ca/legal-services/university-policies-procedures/sexual-and-gender-based-violence-policy

**Other Important Information**
Please visit the Registrar's website at: https://www.ucalgary.ca/registrar/registration/course-outlines for additional important information on the following:

- Wellness and Mental Health Resources
- Student Success
- Student Ombuds Office
- Student Union (SU) Information
- Graduate Students' Association (GSA) Information
- Emergency Evacuation/Assembly Points
- Safewalk

**For additional resources including, but not limited to, those aimed at wellness and mental health, student success or to connect with the Student Ombuds Office, please visit https://www.ucalgary.ca/registrar/registration/course-outlines**

**Education Students Association** (ESA) President for the academic year is Tracy Dinh, esa@ucalgary.ca.

**Werklund SU Representative** is Siena Yee, educrep@su.ucalgary.ca.