UNIVERSITY OF CALGARY

WERKLUND SCHOOL OF EDUCATION
UNDERGRADUATE PROGRAMS IN EDUCATION

AB

EDUC 460.17: Specialization I – Secondary Science
Winter 2021

Instructor	Zoom Dates	Email
Dr. Marie-Claire Shanahan Associate Professor, Learning Sciences	Monday, January 11 Monday, January 25 Monday, February 8 Monday, March 1 All @ 9:30 am – 11am	mcshanah@ucalgary.ca

Class Dates: January 11 – March 12, 2021

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 Science. 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 designs and to begin to examine curriculum shifts in the province.

LEARNER OUTCOMES:

Over the course 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 of Science 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.

4) Successfully design short-term learning and assessment plans to deepen understanding of key ideas/concepts within the discipline.

COURSE DESIGN AND DELIVERY:

This online course is delivered through a problem-based and inquiry-focused approach. Student participation is crucial to the knowledge building in this course. While there are, of course, readings, they don't "contain" the knowledge of this course. Your learning will be primarily through applying concepts from the readings while you experience, design and critique science learning activities. Students are expected to participate in synchronous meetings organized as whole-class ZOOM sessions and in asynchronous conversations through Desire2Learn (D2L) discussion forums that will include blog posts and small-group discussions. Assessment is based on rubrics for the three Learning Tasks.

D2L will be used to post class information and for submitting assignments. It will be our primary class "environment". Each week of the course (usually on Fridays), there will be a detailed outline of the following week posted in D2L that will guide you through the next week's activities, such as what to prepare for the Zoom session, what to post in the discussions. This might include instructor-made videos, links to activities, notes on the topics of the readings, suggestions for assignments, etc. For most class activities, you will need a device with fairly reliable internet connectivity to access D2L, the library website, YouTube, etc. For the Zoom sessions, you will need a device that supports online audio (and preferably video) communication.

COURSE EXPECTATIONS

This course is designed to provide opportunities for you to develop your skills and knowledge as a science teacher. It is important to start from this perspective, that these are opportunities to develop understanding and skill rather than to receive information. With your participation, we will work together to develop your understanding of science teaching.

In this class, 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. This also, however, a difficult time for everyone. You may have multiple responsibilities for yourself and others. Please make your best effort to attend zoom sessions and contribute to group activities. Stay in touch with the instructor if you are experiencing difficulties and need support or additional time.

Another reason for the importance of attendance and active participation is that the course involves working with fellow students to make ideas and thinking visible in order to build knowledge together. For example, most weeks you will work in small groups to engage to discuss and apply course ideas. This will happen in Zoom sessions and small group discussions on D2L. Try your best to value and respect the contributions of all classmates and consider what you might learn from their perspectives and experiences. If you are encountering difficulties with group work, for any reason, contact the instructor to discuss possible solutions.

In order to be successful in this class, thoughtfully engage with the readings, participate fully in knowledge-building through class discussions and collaborative activities, and post or ask questions to clarify or extend you understanding.

ASSIGNMENT OVERVIEW

The full assignment descriptions and assessment details will be discussed in class and posted to D2L. The descriptions in this syllabus should be treated as summaries or overviews, not the full and complete assignment requirements.

Assignment	Format (Individual/Partner/Group)	Weighting	Due Date
LT1: Community Knowledge Building contributions (Various short form responses, e.g., blog posts, group discussions, etc.)	Individual	30%	**Weeks 2, 4, 6**
LT2: Learning Task Critique	Group or Individual	30%	**February 12, 2021**
LT3: Creation of Short-term Learning and Assessment Plan"	Individual	40%	**March 12, 2021**

Note: All assignments should be submitted through D2L, but LT2 and LT3 can be submitted by email to the instructor if you encounter any difficulties with D2L.

Please contact the instructor right away if you are unable to meet an assignment deadline. Short term flexibility (e.g., extensions of 1-3 days) are easily accommodated for LT2 and LT3 when discussed **before the due date**. The deadlines for posts and responses for LT1 are more firm because they are necessary for group discussion. In more extensive situations, a deferral of up to 30 days may be granted at the discretion of the Associate Dean of Undergraduate Programs with accompanying written evidence. A deferral of term work form can be obtained from the UPE office to request this deferral if needed.

TENTATIVE SCHEDULE OF WEEKLY ACTIVITIES AND READINGS

Dates	Topics/Themes	Readings and Assignments
Week of Jan. 11	Welcome & Introduction Scientific Literacy "Learning **science**, learning about **science** and doing **science"**	ZOOM #1 Monday January 11 (NB: you **do not** need to prepare any readings or complete any other preparation for Zoom #1). This reading will be assigned at the end of the Zoom session: Rennie, L. (2005). Science awareness and scientific literacy. https://espace.curtin.edu.au/handle/20.500.11937/31481 PISA 2018 Assessment and Analytical Framework, Scientific Literacy pp. 97-108 https://www-oecd-ilibrary-org.ezproxy.lib.ucalgary.ca/education/pisa-2018-assessment-and-analytical-framework_b25efab8-en

		Alberta Science Grades 7-8-9 Program of Studies, pp. 1-7 https://education.alberta.ca/media/3069389/pos_science_7_9.pdf
Week of Jan. 18	Nature of science and scientific processes Observations vs. Inferences Theories vs. Laws	Burke, L. E. C. A., McAvella, A., & Wessels, A. (2020). Using Drama to Uncover and Expand Student Understandings of the Nature of Science Breadcrumb. *The Science Teacher, 88*(2), 28-35. http://ezproxy.lib.ucalgary.ca/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=sch&AN=146745391&site=ehost-live Kim, B. S., & McKinney, M. (2007). Teaching the nature of science through the concept of living. Science Scope, 31(3), 20-25. http://ezproxy.lib.ucalgary.ca/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=ehh&AN=27471140&site=ehost-live Colburn, A. (2008). Why theories never become laws. The Science Teacher, 75(4), 10. http://ezproxy.lib.ucalgary.ca/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=sch&AN=31488742&site=ehost-live Alberta Science Grades 7-8-9 Program of Studies, p. 8 https://education.alberta.ca/media/3069389/pos_science_7_9.pdf LT1 Response #1 Due Wednesday January 20 and Friday January 22
Week of Jan. 25	Science Technology Society Problem Solving through Technology	ZOOM #2 Monday January 25 Hassard, J., & Dias, M. (2013). The art of teaching science: Inquiry and innovation in middle school and high school. Routledge. Ch. 11 Science, Technology, and Society in the Science Classroom. https://ebookcentral-proquest-com.ezproxy.lib.ucalgary.ca/lib/ucalgary-ebooks/reader.action?docID=3051997&ppg=420

		Kinslow, A. T., & Sadler, T. D. (2018). Making Science Relevant: Using Socio-Scientific Issues to Foster Critical Thinking, *The Science Teacher, 84*(1), 40-45. http://ezproxy.lib.ucalgary.ca/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=sch&AN=130826766&site=ehost-live Kruse, J., Edgerly, H., Easter, J., & Wilcox, J. (2017). Myths about the nature of technology and engineering. *The Science Teacher, 84*(5), 39. https://link.gale.com/apps/doc/A503309629/EAIM?u=ucalgary&sid=EAIM&xid=9160e49e
Week of Feb. 1	Lesson Analysis: Teaching Science for Understanding Concept Statements	Watson, B., & Kopnicek, R. (1990). Teaching for Conceptual Change: Confronting Children's Experience. *Phi Delta Kappan*, *71*, 680-684. http://ezproxy.lib.ucalgary.ca/login?url=https://www.jstor.org/stable/20404253 Dial, K., Riddley, D., Williams, K., & Sampson, V. (2009). Addressing Misconceptions. *The Science Teacher, 76*(7), 54-57. http://ezproxy.lib.ucalgary.ca/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=sch&AN=44524720&site=ehost-live Kern, C., & Crippen, K. J. (2008). Mapping for conceptual change. *The Science Teacher, 75*(6), 32-38. http://ezproxy.lib.ucalgary.ca/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=sch&AN=34108035&site=ehost-live Project Zero Lessons and Activities http://www.pz.harvard.edu/sites/default/files/SimpleCircuits.pdf LT1 Response #2 Due Wednesday February 3 and Friday February 5

Week of Feb. 8	Lesson Analysis: Evidence, Explanation and Conceptual Change	ZOOM #3 Monday February 8 Robertson, B. (2018). Q: How Do We Best Teach and Learn Science Concepts?. *Science and Children, 55*(9), 69-75. http://ezproxy.lib.ucalgary.ca/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=ehh&AN=130365445&site=ehost-live German, S. (2017). Teaching with learning cycles and storylines. *Science Scope, 41*(3), 26-27. http://ezproxy.lib.ucalgary.ca/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=sch&AN=125936638&site=ehost-live Bybee, R. W., Taylor, J. A., Gardner, A., Van Scotter, P., Powell, J. C., Westbrook, A., & Landes, N. (2006). The BSCS 5E instructional model: Origins and effectiveness. Colorado Springs, Co: BSCS. pp. 4-11, 28-31, 33-34 https://media.bscs.org/bscsmw/5es/bscs_5e_full_report.pdf LT2 Due Friday February 12
Week of Feb. 15	**NO CLASSES** **Family Day and Reading Week** ☺	
Week of Feb 22	Practical ideas for translating learning cycles into lesson plans	Jorn, G. B. (2018). LOVE THE LAB, HATE THE LAB REPORT?. *The Science Teacher, 85*(4), 22-26. http://ezproxy.lib.ucalgary.ca/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=sch&AN=128884719&site=ehost-live Eyster, L. (2010). Encouraging creativity in the science lab. *The Science Teacher, 77*(6), 32. http://ezproxy.lib.ucalgary.ca/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=sch&AN=52911175&site=ehost-live Orgill, M., & Thomas, M. (2007). Analogies and the 5E model. *The science teacher, 74*(1), 40-45.

		http://ezproxy.lib.ucalgary.ca/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=sch&AN=23631761&site=ehost-live LT1 Response #3 Due Wednesday February 24 and Friday February 26
Week of March 1	Formative Assessment	Clinchot, M., Ngai, C., Huie, R., Talanquer, V., Lambertz, J., Banks, G., ... & Sevian, H. (2017). Better formative assessment. *The Science Teacher, 84*(3), 69-75. http://ezproxy.lib.ucalgary.ca/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=sch&AN=121366392&site=ehost-live Crumrine, T., & Demers, C. (2007). Formative Assessment: Redirecting the Plan. *Science Teacher, 74*(6), 28-32. http://ezproxy.lib.ucalgary.ca/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=ehh&AN=26377643&site=ehost-live Fowler, K., Windschitl, M., & Richards, J. (2019). Exit Tickets. *The Science Teacher, 86*(8), 18-26. http://ezproxy.lib.ucalgary.ca/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=sch&AN=135589034&site=ehost-live
Week of March 8	**Feedback and completion of LT3**	LT3 Due Friday March 12

ASSIGNMENT DETAILS

LT #1 Community Knowledge Building (Individual, 30%)

Due Dates: during weeks 2, 4, and 6 (see schedule above)

During Weeks 2, 4, and 6 you will participate in small group discussions, posting your contributions to D2L. There will always be two parts to the contributions but exact nature of the contributions will be different in each week and will be posted by Friday of the previous week. For example, a week might include:

- Written answer to a discussion questions (approx.. 500 words) Wednesday (midnight)
- Responses to all of your group members: Friday (midnight)

Format: Each week will have its own response format such as: written responses (e.g., blog posts), lesson ideas or examples, audio or video recordings. The format will be specified in the outline posted the Friday before the contributions are due.

These discussions will allow you to interact and share ideas with your colleagues, discussing and applying course ideas. Thoughtfully plan how you will engage the members of your class on your insights and learning. Your contributions should be detailed and illustrating connections to course ideas and evidence from other sources such as:

- Professional discussions
- Course readings and resources
- Current research
- Classroom observations/experiences

CRITERIA FOR ASSESSMENT OF LEARNING TASK 1

ACriteria	A to A+ Meets all and exceeds some requirements	B+ to A- Meets all requirements	B- to B Meets most requirements	Does not meet requirements
Articulation of Science Teaching concepts	Contributions and responses are detailed, insightful, clearly communicated, and focused on group knowledge building.	Contributions and responses are clear, and focused on group knowledge building..	Contributions and responses are generally clear, but may lack some details or focus.	Contributions and responses are unclear and/or not focused on knowledge building.
Relevant evidence	Demonstrates skillful use of high quality, credible, relevant sources to explain and support ideas. Cites all content obtained from other sources other than course readings and personal experiences. APA 7 citation style is accurate (if applicable).	Demonstrates consistent use of credible, relevant sources to support ideas. Cites most content obtained from other sources other than course readings and personal experiences. APA 7 citation style is accurate (if applicable).	Demonstrates an attempt to use credible and/or relevant sources to support ideas. Cites some content obtained from other sources. Citation style is either inconsistent or incorrect (if applicable).	Does not use credible and/or relevant sources to ideas. May not cite sources.

Democratizing knowledge	Recognizes all participants as legitimate contributors to the shared goals of knowledge building through supportive and constructive interactions that build on group ideas.	Recognize and integrates contributions from all group members.	Attempts are made (potentially with some gaps) to recognize and respond to contributions from all groups members.	Contributions are primarily independent without recognition and/or integration of ideas from other group members.

LT2: Analysis of a Learning Design and Assessment Plan (Individual or Group, 30%)

Due Friday, February 12, 2021 @ 11:59 pm

Length: approximately 4 pages doubled spaced

For this assignment, in groups of 1-3, students will analyze a learning design and assessment plan (aka lesson plan) that they have found online or that they have used in their field experience. The purpose will be to: foster professional learning conversations and build knowledge about the features of well-designed discipline-based learning and assessment plans. Students will write a critical review of the learning design and assessment plan, by addressing questions such as:

Established Goals: What overall goals are stated or implied in the lesson? Are there explicit curriculum connections (for any curriculum or policy documents)? If not or if they are not from Alberta, what SLEs from the Alberta Program of Studies could this lesson address? Does this lesson focus on learning science, learning about science or learning to do science? How well do the activities and assessment plans align with those goals?

Understandings: What concepts and/or process skills are the focus of the lesson? What are the concept statements that are stated or implied (if not stated, try to state them yourself)? How effective do you think that the activities and overall design would be in creating opportunities for student understanding?

Assessment Evidence: Do you think that the assessment strategies are well aligned with the goals of the lesson?

Connections to theory: How well does that lesson exemplify the overall intentions of the Alberta Science Program (as expressed in the Rationale, Philosophy and Program Emphasis from the PoS, pp. A1-A3). Do you think that this lesson design is consistent with the learning cycle approach and/or conceptual change? Would this lesson support students understanding of the nature of science?

Recommendations: Based on your answers to the previous questions, how would you adapt or change the plan to enhance the learning experience for students?

CRITERIA FOR ASSESSMENT OF LEARNING TASK 2

Rubric - Assignment 2 Criteria	A+/A	A-/ B+	B / B-	C+ / lower
Assessment of Learning Plan (50%)	All elements of the learning plan are addressed in a thorough, detailed and well-supported assessment.	Most elements of the learning plan are addressed in a thorough, detailed and well-supported assessment. Others require strengthening or illustrate minor gaps.	Some elements of a learning plan are addressed, however the assessment is vague and examples are inappropriate, unspecific or few.	Some of the elements of a learning plan are missing or addressed in a cursory manner.
Grounding with theory (30%)	Makes multiple connections to the literature throughout the assessment, including course readings and the Program of Studies. Theoretical connections are highly relevant, insightful and well-explained.	Makes connections to the literature, including course readings and the Program of Studies. Theoretical connections are mostly effective, and well-explained. Some connections may require strengthening.	Makes few connections to course readings and the Program of Studies, Theoretical connections are sometimes inappropriate and/or underexplained.	Connections to theory and/or Program of Studies are missing, incomplete, or made in a cursory manner.
Presentation of ideas (20%)	Writing style is clear, engaging and academic in tone. In-text citations and reference list uses correct APA 7 style. Paper demonstrates clear attention to presentation.	Writing style is clear and primarily academic. Most in-text citations and reference lists use correct APA 7 style. Paper demonstrates attention to presentation.	Writing style is sometimes academic, sometimes informal or unclear. Some in-text citations and reference list use correct APA 7 style. Paper requires some attention to presentation.	Writing style is informal and/or unclear. In-text citations and reference list are missing or not in APA 7 style. Paper requires extensive editing in order to attend to presentation.

Resources:
These are a few of the resources that you can access to find a lesson plan that interests you. Additional resources will be provided through D2L.
Alberta Assessment Consortium Username: teachers Password: master
Doucette Library – Library guide for lesson planning
http://libguides.ucalgary.ca/lesson_planning_resources
Utah Education Network http://www.uen.org/lessonplan/
www.PimsleurApproach.com

LT3: Creation of Short-term Learning and Assessment Plan (Individual, 40%)

Due: March 12, 2021
Task: TWO-THREE lessons of 40-80 minutes (for Junior or Senior High Science)

For this assignment, students will design a short-term learning and assessment plan. The assignments will be written and submitted individually, but you may work collaboratively with your group from LT2 to discuss and share ideas. This is much like what often happens in schools, where science teachers of the same course/grade will discuss and share ideas but ultimately plan the specifics of their lessons individually to suit their individual teaching styles and the needs of their students. The sequence will be comprised TWO-THREE lessons of 40-80 minutes (for Junior or Senior High Science). One lesson should be a redesign of the lesson that you assessed in LT2. Then you will plan one or two lessons to follow or precede. If it's more appropriate, you may also split up the ideas from the lesson you critiqued and use them to create a blended 2-3 lesson sequence. It just needs to be clear that you've done significant original planning (equivalent to redesigning a lesson and then creating 1-2 of your own).

Your sequence should follow a clear and comprehensive template (of your choice) and include a plan for learning and assessment that promotes deep understanding of key concepts in science. You will also annotate your sequence to record your thoughts, decision-making processes and justifications while creating the lesson plan. This can be done in a number of different ways, such as: in a column format, with the comment function in word or adobe, or simply with a different colour of text. Your annotations should make reference to ideas from Specialization I (e.g., readings, key concepts such as NoS, STS, Inquiry, Learning Cycle, Knowledge-based assessment, etc.)
The following elements are required:

1. A thorough plan for 2-3 class periods of elementary science that address conceptual learning. Your plans must include the following: objectives/conceptual goals, descriptions of student and teacher activities during the lessons, approximate timings, options for inclusion/differentiation, copies of any required materials and formative assessment strategies that link to your objectives.
2. Annotations to the lesson plans. Record the choices you made, the ideas you chose to include, and how this lesson fits into the curricular objectives as stated in the Alberta Programs of Study. Justify the pedagogical choices you have made by adding references to the literature you have discussed in class.

CRITERIA FOR ASSESSMENT OF LEARNING TASK 3

	A+ / A	A-/ B+	B / B-	C+ / lower
DESIGN (40%) Curricular Outcomes	Design includes appropriate and clear links to the relevant grade and unit in the PoS. Clear understanding of curricular outcomes is expressed through meaningful and detailed concept statements.	Includes links to the PoS for the relevant grade and unit; concept statements are included but may require clarification.	Links to the PoS for relevant grade and unit are not clear or are incomplete. Concept statements may be missing or unclear.	Links to the PoS and concept statements are minimal or missing.

Lesson logistics	The details of lesson flow and classroom organization are clear and thoughtful, lesson sequence is clear and well-ordered and it is easy to envision how the lessons will unfold. The organization of materials and students is clear and well thought out. Transitions into and out of activities and lessons are well considered and appropriate and show insightful consideration of student experience.	The details of lesson flow and classroom organization are clear, lesson sequence is clear but minor adjustments would improve the flow. The organization of materials and students is mostly clear. Transitions into and out of activities are included.	The details of lesson flow and classroom organization are mostly clear, lesson sequence is mostly clear but there may be gaps or points of disconnection. The organization of materials and students is mostly clear but there may be gaps or issues with the organization. Transitions into and out of activities may not be included or are incomplete.	Lesson plans are missing significant details to illustrate lesson flow and classroom organization. The lesson sequence is unclear or disjointed. Organization of materials and students my be
Deep Understanding	Lesson design would be highly effective for encouraging students' deep understanding of concepts. Insightful and creative use of lesson structures that support understanding (such as learning cycle, 5Es)	Lesson design provides good opportunities to encourage students' deep understanding of scientific concepts. Lessons structures that support understanding (such learning cycle, 5Es) are evident.	Lesson design shows awareness of importance of encouraging students' understanding but has gaps that could potentially disrupt understanding. Lesson structures that support understanding may be missing or incomplete.	Lesson design does not show evidence of focusing on student understanding.

ASSESSMENT (20%)	Appropriate and relevant knowledge-based assessments are clearly integrated into lesson. The plans use a variety of formal and informal formative assessments to inform instructional decisions and to improve practice; It is clear how assessments will be used to inform future learning experiences from lesson to lesson in meaningful ways.	Good effort to integrate appropriate and effective formative assessments; Shows some variety in strategies for formative assessment. It is mostly evident how assessments will improve learning experiences.	Lessons include formative assessment opportunities but assessments may be tangential or not clearly related to student understanding. Formative assessment options are limited and may not address how assessment will lead to improved learning experiences.	Assessments are missing or unrelated to student understanding. There are few indications of how assessment will contribute to student learning.
ANNOTATION (40%)	Annotations display a sophisticated and insightful understanding of course ideas related to lesson planning The annotated lesson plan is written clearly, with detailed explanations of choices and justifications.	Annotations show a competent understanding of course ideas related to lesson planning. The annotated lesson plan is well written and easily understood.	Annotations connect to course ideas but may be inconsistent or illustrate gaps in justification.	Annotations are missing or confusing in a way that makes the justification unclear or absent.

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: http://www.ucalgary.ca/pubs/calendar/current/e-2.html

GRADING

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

Students in the B.Ed. program must have an overall GPA of 2.5 in the semester to continue in the program without repeating courses.

Academic Accommodation
Students seeking an accommodation based on disability or medical concerns should contact Student Accessibility Services; SAS will process the request and issue letters of accommodation to instructors. For additional information on support services and accommodations for students with disabilities, visit www.ucalgary.ca/access/. Students who require an accommodation in relation to their coursework based on a protected ground other than disability should communicate this need in writing to their Instructor. The full policy on Student Accommodations is available at http://www.ucalgary.ca/policies/files/policies/student-accommodation-policy.pdf.

Academic Misconduct
For information on academic misconduct and its consequences, please see the University of Calgary Calendar at http://www.ucalgary.ca/pubs/calendar/current/k.html

Attendance/ Prolonged Absence
Students may be asked to provide supporting documentation for an exemption/special request. This may include, but is not limited to, a prolonged absence from a course where participation is required, a missed course assessment, a deferred examination, or an appeal. Students are encouraged to submit documentation that will support their situation. Supporting documentation may be dependent on the reason noted in their personal statement/explanation provided to explain their situation. This could be medical certificate/documentation,

references, police reports, invitation letter, third party letter of support or a statutory declaration etc. The decision to provide supporting documentation that best suits the situation is at the discretion of the student.

Falsification of any supporting documentation will be taken very seriously and may result in disciplinary action through the Academic Discipline regulations or the Student Non-Academic Misconduct policy.

https://www.ucalgary.ca/pubs/calendar/current/n-1.html

The Freedom of Information Protection of Privacy Act prevents instructors from placing assignments or examinations in a public place for pickup and prevents students from access to exams or assignments other than their own. Therefore, students and instructors may use one of the following options: return/collect assignments during class time or during instructors' office hours, students provide instructors with a self-addressed stamped envelope, or submit/return assignments as electronic files attached to private e-mail messages.

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 Jonah Secreti, jonah.secreti@ucalgary.ca, esa@ucalgary.ca.

Werklund SU Representative is Naomi Shaw, educrep@su.ucalgary.ca.