

EDUC 460.22 Specialization I – K-12 Mathematics
Summer, 2020

| Section | Instructor | Zoom Time | Zoom Dates | Email |
|----------------|-------------------|------------------|--|--------------------|
| S01 | Jeff Turner | 9:30 – 11:00 am | Wednesday, July 8 & 22 Thursday, August 6 (tentative) | turnej@ucalgary.ca |

Course Dates: July 6 - to August 12, 2020

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

COURSE DESCRIPTION:

The intent of the Specialization I, K-12 Mathematics, is to introduce students to the concepts, theory, and design planning related to teaching within the specialization of 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:

Course participants 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.
- 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. Students are expected to participate in synchronous meetings organized as whole-class ZOOM seminar and in asynchronous conversations through Desire2Learn (D2L) discussion forums that will include blogs and small-group jigsaw discussions. Assessment is based on rubrics for the three Learning Tasks. D2L will be used to post class information and for submitting assignments. You will need a device that supports online audio (and preferably video) communication.

REQUIRED RESOURCES:

Access to some of the books and journal articles is through the University of Calgary Library system.

Alberta Education (n.d.). *Programs of Study*. <http://www.learnalberta.ca/ProgramsOfStudy.aspx?lang=en>

Ansari, D. (2015, September 29). *No more math wars, An evidence-based, developmental perspective on math education*. EdCan Network. <https://www.edcan.ca/articles/no-more-math-wars/>

Bennett, C. (2019, April 16). *What is the 5E Instructional Model? Student inquiry-based learning for all classes*. ThoughtCo. <https://www.thoughtco.com/5-e-instructional-model-4628150>

Ernest, P. (2000). Why teach mathematics. In J. White & S. Bramall (Eds.), *Why learn mathematics*. London University Institute of Education. <http://socialsciences.exeter.ac.uk/education/research/centres/stem/publications/pmej/why.htm>

Friesen, S. (2009). *What did you do in school today? Teaching effectiveness: A framework and rubric*. Canadian Education Association. <http://www.galileo.org/cea-2009-wdydist-teaching.pdf>

Galileo Network, (ND). Big mathematical ideas and understandings. <http://galileo.org/pl/wp-content/uploads/math-big-ideas.pdf>

McFeetors, P. J., & McGarvey, L. M. (2019). Public perceptions of the basic skills crisis. *Canadian Journal of Science, Mathematics and Technology Education*, 19(1), 21–34. <https://doi-org.ezproxy.lib.ucalgary.ca/10.1007/s42330-018-0016-1>

National Council of Teachers of Mathematics. (2000). *Principles and Standards for School Mathematics* (pp. 29 – 71). **Posted as a PDF in D2L (fair dealing)**

National Council of Teachers of Mathematics. (2014). *Principles to Actions: Ensuring mathematics success for all* (pp. 7-12). Author, Reston, VA. [in D2L] - **Posted as a PDF in D2L (fair dealing)**

Purdue University. (2020). *Purdue online writing lab: APA guide*. https://owl.purdue.edu/owl/research_and_citation/apa_style/apa_style_introduction.html

Wiggins, G. & McTighe, J. (2005). *Understanding by design* (2nd Edition). Alexandria, VA: Association for Supervision & Curriculum Development. <https://ebookcentral-proquest-com.ezproxy.lib.ucalgary.ca/lib/ucalgary-ebooks/reader.action?docID=3002118>

Resources for LT3:

Alberta Assessment Consortium: <https://aac.ab.ca/>
Username: teachers
Password: master

Alberta Education (2016). *Alberta K–9 mathematics achievement indicators [2016]*. <https://open.alberta.ca/publications/9781460127292>

Alberta Education (2008). *The Alberta 10-12 mathematics program of studies with achievement indicators*. <https://open.alberta.ca/publications/9780778564393>

Alberta Education (n.d.). *Benchmarks, strategies and resources for teachers of English Language Learners*.
<https://www.learnalberta.ca/content/eslapb/index.html>

Alberta Education. (2010). *Making a difference: Meeting diverse learning needs with differentiated instruction*.
https://education.alberta.ca/media/384968/makingadifference_2010.pdf

Alberta Teachers' Association. (2020). *Indigenous Math*.
<https://teachers-ab.libguides.com/c.php?g=711542&p=5071498>

Doucette Library – Library guide for Elementary Mathematics lesson planning:
https://library.ucalgary.ca/sb.php?subject_id=52614

ADDITIONAL RESOURCES:

Alberta Education. (2020). *Guide to education*. <https://open.alberta.ca/publications/1496-7359>

Kilpatrick, J., Swafford, J., & Findell, B. (Eds.) (2001). *Adding it up: Helping children learn mathematics*.
Washington, DC: National Academy Press. [Chapter 4, pp. 115 – 133]
http://www.nap.edu/catalog.php?record_id=9822

National Council of Teachers of Mathematics. (ND). *Illuminations*. <http://illuminations.nctm.org/Default.aspx>

National Council of Teachers of Mathematics. (ND). *Mathematics Teacher Education*.
<https://www-jstor-org.ezproxy.lib.ucalgary.ca/journal/mathteceduc>

National Council of Teachers of Mathematics. (ND). *Mathematics Teaching in the Middle School*.
<https://www-jstor-org.ezproxy.lib.ucalgary.ca/journal/mathteachmidscho>

National Council of Teachers of Mathematics. (ND). *Teaching Children Mathematics*.
<http://www.jstor.org.ezproxy.lib.ucalgary.ca/journal/teachilmath>

Stockero, S. L., & Zoest, L. R. Van. (2011). Making student thinking public. *The Mathematics Teacher*,
104(9), 704–709. <https://www-jstor-org.ezproxy.lib.ucalgary.ca/stable/20876997>

LEARNING TASKS OVERVIEW

| Learning Task | Description of Learning Task | Weight | Group/ Individual | Due Date |
|----------------------|--|---------------|--------------------------|---|
| LT1 | Inquiry into the Teaching of Mathematics | 30% | Group | Wed., July 15 in D2L Discussions and Dropbox |
| LT2 | Evolving Understanding of the Teaching of Mathematics (Blog & response to LT1) | 30% | Individual | Blog: Mon. July 20, 27, & Aug. 3 Response: Wed. July 22, 29, & Aug. 5 in D2L Discussions |
| LT3 | Creation of Short-term Learning and Assessment Plan | 40 % | Individual | Wed. August 12 in D2L Dropbox |

WEEKLY COURSE SCHEDULE:

| Date | Topic | Readings and Tasks |
|-----------------|--|---|
| July 6 -10 | Essential Question [EQ]: 1. What are the goals of mathematical teaching? 2. What does it mean to be a teacher of Mathematics? 3. What is your understanding of mathematical reasoning and problem-solving skills? <ul style="list-style-type: none"> • Intro to LT1 & online workshop format • Intro to LT2 | <p style="text-align: center;">Zoom mtg: Wed. July 8, 9:30 – 11:00</p> Readings: For Zoom meeting: <ul style="list-style-type: none"> • <i>Why teach mathematics?</i> • <i>What is the 5E Instructional Model?</i> Review <i>Front Matter</i> of the Mathematics Program of Studies that supports your grade of interest(gd. K-9, p.1 – 10 or gd. 10 – 12, p. 1 – 12). Focus on strands/topics, mathematical processes, and the nature of mathematics. Tasks: <ul style="list-style-type: none"> • Work on LT1 |
| July 13-17 | EQ: What does it mean to facilitate and support a “constructivist classroom”? <ul style="list-style-type: none"> • Who are the learners? • The “Instructional Core” • Intro to reading jigsaw | <p style="text-align: center;">LT1: due Wed. July 15</p> Readings: <u>for next week Zoom mtg.</u> <ul style="list-style-type: none"> • <i>Principles and Standards for School</i> • <i>Public perceptions of the basic skills crisis</i> • <i>Mathematics No more math wars</i> Tasks: <ul style="list-style-type: none"> • Work on LT1 & LT2 |
| July 20 - 24 | EQ: What does it mean to be a “designer” of learning? <ul style="list-style-type: none"> • Stage 1. Identify Desired Results: Mathematical processes (7) and the nature of Mathematics (7). • Design thinking & Big Ideas • Intro to LT3 | <p style="text-align: center;">Blog #1: due Mon. July 20 Response #1: due Wed. July 22 Zoom mtg: Wed. July 22, 9:30 – 11:00</p> Readings: Note: Using a jigsaw reading approach, a pair/triad of students will be responsible for only 1 of the chapters over the next 3 weeks). <ul style="list-style-type: none"> • <i>Understanding by design: Ch. 3, 4, 5, & 6</i> Resource: <ul style="list-style-type: none"> • <i>Big mathematical ideas and understandings</i> Tasks: <ul style="list-style-type: none"> • Work on LT2 • Start LT3: Stage 1 |
| July 27 – 31 | EQ: What will you accept as evidence that student understanding took place? <ul style="list-style-type: none"> • Stage 2. Determine what constitutes acceptable evidence of competency in the outcomes and results (assessment). | <p style="text-align: center;">Blog #2: due Mon. July 27 Response #2: due Wed. July 29</p> Readings: <i>Understanding by design: Ch. 7 & 8</i> Tasks: <ul style="list-style-type: none"> • Work on LT2 • Start LT3: Stage 2 |

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| Aug. 4 - 7 | EQ: How do you shift the responsibility of learning from the teacher to the students? <ul style="list-style-type: none"> • Stage 3. Plan Learning Experience and Instruction | <p style="text-align: center;">Blog #3: due Mon. Aug. 3 Response #3: due Wed. Aug. 5</p> <p style="text-align: center;">Zoom mtg: Wed. August 6, 9:30 – 11:00 (tentative)</p> <p>Readings: <i>Understanding by design</i>: Ch. 9 & 10 Resource: <i>Making student thinking public</i>. Tasks:</p> <ul style="list-style-type: none"> • Work on LT2 • Start LT3: Stage 3 |
| Aug. 10 - 12 | EQ: What does it mean to be a teacher of diversity? <ul style="list-style-type: none"> • Stage 4: Learner differentiation | <p style="text-align: center;">LT1: due Wed. Aug. 12</p> <p>Resource: <i>Making a Difference: Meeting diverse learning needs with differentiated instruction: Chapter 12 (Mathematics)</i></p> <ul style="list-style-type: none"> • Start LT3: Stage 4 |

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

There are 3 required Learning Tasks for this course. Completion of all tasks is required to pass this course.

LT1: Inquiry into the Teaching of Mathematics

Due Date: Wednesday, July 15 in D2L Discussion and Dropbox

Percentage of the Final Grade: 30%

Length: 30 minutes (max)

Intent of LT1: The intent of this learning task is for you to foster a professional conversation focused on pedagogical content knowledge within mathematical education. You will develop and present an inquiry topic based on a key question to be explored within the teaching of mathematics. Your questions should connect to class discussions, suggested readings, and should also be connected to the development of your lesson plan (LT 3).

During the course, you will present your work, asynchronously, as a 30 min. (max) Professional Development workshop for teachers, framed within the 5 E's Instructional Model. The 5 E's Instructional Model is based on the constructivist approach to learning and provides a model for how this strategy can be implemented for authentic, problem-based, and inquiry-focused learning experiences. Each of the 5 E's describes a phase of learning: Engage, Explore, Explain, Elaborate, and Evaluate. Please refer to: *What is the 5E Instructional Model? Student inquiry-based learning for all classes*

Your presentation should focus on how these “understandings” will influence our pedagogical practices. Specifics for presentation format will be at the discretion of the presenter. The presentation along with references (APA 7: see *Purdue online writing lab: APA guide*) must be submitted to both D2L-Discussion and D2L-Dropbox.

LT1 topics and further explanations will be presented to you in both D2L Content and at the July 8 Zoom Seminar.

CRITERIA FOR ASSESSMENT OF LEARNING TASK 1

| Criteria | A to A+ Meets all and exceeds some requirements | A- to B+ Meets all requirements | B to B- Meets most requirements. |
|---|--|---|---|
| Quality & Meaningfulness of Research Question used in Inquiry | | | |
| Rationale: What and Why do you want to know “this” within the discipline? | The research question is clearly stated, specific and addresses a significant need or problem that teachers encounter in the classroom. The rationale for choosing the question is supported with personal interests in professional growth in this area. Considers and/or challenges common assumptions in this area. | The research question is appropriate and clearly stated but is either too general or too narrow, leading to a multitude of sub- question or ruling out new possibilities. The supporting rationale is generally well-written but not relevant to personal interest stemming from classroom experience or identification of professional growth areas. | The research question is roughly sketched and in need of refinement. The supporting rationale is weakly developed and/or does not address personal interest or identification of professional growth areas. |
| How will it make a difference to your teaching of the discipline? | The question has the potential to hold professional interest over time. Direct links are made to how new knowledge in this area will support teaching in the service of learning. | The question has the potential to hold professional interest beyond this assignment. Weak links are made to how new knowledge in this area will support teaching in the service of learning. | The question has limited importance for on-going investigation. Few or no links are made to how this question will support teaching in the service of learning. |
| Critique & Critical Analysis | | | |
| What are the connections between theory and practice? | Well-developed depth of understanding of the topic shown through credible and respected referenced connections between theory and practice. Cites all academic content obtained from other sources. APA 7 citation style is accurate. | Sufficient depth of understanding of the topic shown through limited referenced connections between theory and practice. Cites most content obtained from other sources. APA 7 citation style is accurate. | Little depth of understanding of the topic with minimum referenced connections between theory and practice. Citations do not employ APA 7 citation style. |
| Overall Presentation of Findings | | | |
| How effective is the creation and development of conceptual ideas in contributing to our pedagogical content knowledge (use of the 5Es)? | Careful and critical development of the conceptual ideas through the 5Es so participants will be able to develop and apply pedagogical information, concepts, and skills to new teaching situations. | Some development of the conceptual ideas through the 5Es so participants will be able to develop minimal pedagogical understanding. with implications for practice in classrooms. | Little development of the conceptual ideas through the 5Es, with little or no connection to pedagogical development and with no implications for practice in classrooms |

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| How effective is the video in allowing the viewer to follow your train of thought and developing key understandings? | Video design and layout is creative, visually appealing, and effectively supports the audio; using word count, font style, color, headlines, bullets, and numbers. Graphics (e.g., diagrams, picture, tables, figures, etc.) effectively enhance key ideas. Audience provided with important resources or handouts for later consideration. | Overall design and layout of the video is appealing and supports the audio; adequate use of word count, font style, color, headlines, bullets, and numbers. Graphics enhance key ideas. Handouts and other resources provided may not directly relate to central topic. | Design and layout of video is adequate but somewhat cluttered. Choice of word count, font style, color, headlines, bullets, and numbers detract from the audio. Graphics are limited in enhancing the audio. Content arrangement is somewhat confusing and does not adequately assist the viewer in understanding order without narration. |
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LT2: Evolving Understanding of the Teaching of Mathematics

Due Date: Blog: Mon. July 20, 27, & Aug. 3 in D2L Discussion
 Response: Wed. July 22, 29, & Aug. 5 in D2L Discussion

Percentage of the Final Grade: 30%

Length: Blog Format, max. 500 words/posting, APA formatting

Intent of LT2: The purpose of the assignment is to provide a response to the following question: How is your conceptualization of teaching Mathematics changing, being modified, or reinforced throughout the course? In order to answer the question, you will be asked to view presentations from LT1 based on a 3-week schedule. Your response will be in the form of a blog, that is you will write from a personal perspective that allows you to connect directly with your readers. Based on the schedule, you will post on Monday and respond to two other peers Wednesday night. This connection allows you to interact and share ideas with your colleagues. You will have a total of 3 blogs and 6 responses. Your blogs must be persuasive, that is, you should take a personal stance on the question and explain your response, using relevant and varied evidence from the LT1 presentations.

Further details and explanations will be presented to you in D2L Content and our first Zoom seminar.

CRITERIA FOR ASSESSMENT OF LEARNING TASK 2

| Criteria | 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 |
|---|--|--|--|---|
| Articulates a clear, insightful and growing understanding of teaching concepts | Blog and responses are introduced, clearly communicated, and the focus is strongly maintained for the purpose of knowledge building. | Blog and responses are clear, and the focus is maintained for the purpose of knowledge building. | Blog and responses are generally clear, but the focus may be insufficiently sustained for the purpose of knowledge building. | Blog and responses are unclear and not clearly developed for the purpose of knowledge building. |

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| Relevant evidence from LT1 and other sources to support responses | Build upon content from LT1, readings, conversations, and experiences to open new possibilities in understanding. Demonstrates skillful use of high quality, credible, relevant sources to develop ideas that are appropriate for the discipline. Cites all content obtained from other sources. APA 7 citation style is accurate. | Demonstrates consistent use of information from LT1 with credible, relevant sources to support ideas that are situated within the discipline. Cites most content obtained from other sources. APA 7 citation style is accurate. | Demonstrates an attempt to use information from LT1 with credible and/or relevant sources to support ideas that are appropriate for the discipline. Cites some content obtained from other sources. Citation style is either inconsistent or incorrect. | Does not use information from LT1 with credible and/or relevant sources to support ideas that are appropriate for the discipline. Does not cite sources. |
| Democratizing knowledge | Recognize all participants as legitimate contributors to the shared goals of the knowledge building community through dialogic interactions. | Recognize and praise everyone's work and help others find needed information. | You add your contribution with little recognition of others contribution. | You add little independent contribution with little dialogic interaction with others in the group. |

LT3: Designing an Annotated Discipline-based Learning and Assessment Plan
(Individual submission – work in pairs/triads to develop sequential lessons)

Due Date: Wednesday, August 12 in D2L Drobox

Percentage of the Final Grade: 40%

Intent of LT3: The intent of LT3 is to design and annotate a short-term learning and assessment plan. We will be using a Whole-Part-Whole learning model over the last 4 weeks of the course to develop the lesson plan. Through the D2L Content and our second Zoom seminar you will first be presented with an overview of the expectations for the final assignment. Then over the four weeks, we will scaffold the assignment through a process of jigsaw reading.

Expectations of LT3:

- You may work collaboratively (pairs/triads) but must submit individual learning plans. Each student will design a short-term learning and assessment plan. The plan will be comprised of ONE lesson plan for an 80-minute class for a Senior High class, or 45 - 60 minutes for a Middle/Junior High class, or 30 – 45 minutes for an Elementary class.
- The learning plan must follow a clear and comprehensive **design for learning focused template (in D2I Content)** that promotes deep understandings of a key concept or competency of the discipline.
- You will record/annotate (making your thinking visible), using **mark-ups** on the lesson design, the reasons for the choices you have made including: (i) why are you doing what you are doing, (ii) how this reflects your understanding of UbD as a design approach (refer to *Understanding by design*. Ch 3 - 10), (iii) how this lesson plan fits into the broader context of a unit, and (iv) the intended pedagogical content knowledge choices you have made.

- Use the following rubric to guide your lesson design and annotations.

CRITERIA FOR ASSESSMENT OF LEARNING TASK 3

| Criteria | A to A+ Meets all and exceeds some requirements | B+ to A- Meets all requirements | B- to B Meets most requirements |
|---|---|---|---|
| Annotation: Making Pedagogical Approach Visible | | | |
| Annotations of Pedagogical Approach | Annotations of pedagogical approach are clearly communicated, and the focus is strongly maintained with a clear focus of how each component of the lesson relates to teaching and learning. | Annotations of pedagogical approach are given with only facts related to each component of the lesson with limited connection relates to teaching and learning. | Annotations of pedagogical approach are unclear and not clearly developed for each component of the lesson. |
| Stage 1 - Lesson Rationale: To what extent does the design focus on building understanding of targeted content based on an Alberta Education Program of Studies? | | | |
| Curricular Outcomes | Has identified targeted understandings of curricular outcomes that are truly enduring, based on transferable big ideas at the heart of the discipline, and in need of uncovering. | Has identified targeted understandings of curricular outcomes that are based on transferable big ideas of the discipline. | Has identified targeted understandings of curricular outcomes and sometimes incorporates them into inquiry-based learning |
| Targeted Understandings | The targeted understandings are framed by essential questions that spark meaningful connections, provoke genuine inquiry and deep thought, and encourage transfer of learning. | The targeted understandings are framed by some essential questions that adequately make connections for inquiry- based learning, deep thought, and encourage transfer of learning. | The targeted understandings are framed by questions that could be incorporated into inquiry-based learning. |
| Misconceptions | Misconceptions are relevant and targeted. | Some misconceptions are identified and targeted. | Some misconceptions are identified, but not targeted |
| Ab Ed PoS Outcomes General (unit) Specific (lesson) | Lists the outcomes students must meet in order for the enduring understandings to develop. Outcomes clearly reflect the PoS, the <i>Mathematical Processes</i> , and the <i>Nature of Mathematics</i> and are linked the targeted understandings. | Outcomes are stated but all of the elements needed to provide the needed knowledge and skills for the targeted understandings have not been included. | Outcomes are stated but do not link to the targeted understandings. |
| Stage 2 - Assessment Evidence: To what extent do the assessments provide fair, valid, reliable, and sufficient measures of the desired results | | | |
| Balanced Assessment | Balanced assessment is integral to the learning and woven into the day-to-day fabric of teaching and learning. Appropriate criterion-based scoring tools are used to evaluate student products and performances. | Balanced assessment is used on a regular basis and is part of the teaching and learning. Some criterion-based scoring tools are used to evaluate student products and performances. | Assessment is primarily summative with limited or irregular use of formative assessment to improve teaching and learning. |
| Learning Outcomes | Assessment is directly matched to learning outcomes from Stage 1. (<i>Ab Ed Achievement Indicators</i>) | Assessment closely matches the learning outcomes from Stage 1. | Limited match between assessment and Stage 1, |
| Assessment Through Authentic Performance Tasks | Students are asked to exhibit their understanding through authentic performance tasks to provide additional evidence of learning. | Students have limited opportunities to exhibit their understanding through authentic performance tasks to provide general evidence of learning. | Limited number of assessment data provides a partial or incomplete picture of student learning. |

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| Clear Criteria are Established | Assessment criteria are collaboratively designed with students and mediated by or added to by the teacher to reflect authentic real-world standards for high quality work. | Assessment criteria are developed by the teacher and fully explained to students before the work begins. | Assessment criteria are shared after the work has been graded. |
| Self and Peer Assessment | Students are encouraged to self-assess and peer-assess | Students have limited opportunities to self-assess and peer-assess | No evidence of self or peer assessment. |
| Stage 3: To what extent is the learning plan effective and engaging | | | |
| Design Is Informed by Pedagogical Content Knowledge (e.g. 5Es) | Designs learning experiences that engage the students in doing work that require distinct ways of thinking about and acting in the world that disciplines embody to make meaningful connections and build deep understanding. | Designs learning experiences that are organized around disciplinary ideas and core concepts and requires that students make connections between existing and new ideas to build understanding. | Selects activities that emphasize subject matter acquisition which deal with acquiring information, facts and formulas. |
| Authentic Performance Task | The work students undertake requires them to engage in productive collaboration with each other and with discipline and other experts around real problems, issues, questions or ideas that are of real concern and central to the discipline, to the students and to the broader community outside of school. | The work students undertake requires them to engage in productive collaboration with each other around matters that are central to the discipline and the broader community outside of school. | The work students undertake requires them to acquire and recall static, inert facts. |
| Work Fosters Deep Understanding | The work students undertake fosters strong habits of mind, innovation and creativity. Students are routinely asked to: <ul style="list-style-type: none"> • Formulate plausible, coherent working theories, • Formulate well-reasoned judgment and conclusions based on evidence with an examination of different viewpoints, • Analyze assumptions, • Discuss how things might be otherwise, i.e. supposition, • Thoroughly examine implications, • Consider ambiguities • Work across a variety of contexts, and, • Make connections between and among concepts | The work students undertake fosters disciplined habits of mind. Students are asked to: <ul style="list-style-type: none"> • Formulate plausible solutions, • Articulate assumption, • Formulate reasoned judgment and conclusions based on evidence, and, Consider implication that reach beyond the immediate situation. | The work students undertake builds habits of mind that emphasize groupthink by requiring a simplistic solution and/or absolute conclusion attributed to an external authority with no consideration of implications |
| Stage 4: Learner Inclusion | | | |
| ESL Benchmarks (Level 3) reflected in the Performance Task | Appropriately selected ESL benchmark objectives for level 3 students with specific rationale for performance task. | Selected ESL benchmark objectives for level 3 students or rationale for performance task not clearly articulated. | Inappropriate or missing selected ESL benchmark objectives for level 3 students. |

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| Learner Inclusion | A variety of effective and inclusive learning strategies are incorporated into the design to address the learning interests and needs of all students. Inclusion of technology, Indigenous, multicultural, and inter-disciplinary activities are highly evident. | A limited variety of teaching methods are used to engage all students. Inclusion of technology, Indigenous, multicultural, and inter-disciplinary activities are restricted. | There is no evidence of a variety of teaching methods used to engage all students. |
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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: <http://www.ucalgary.ca/pubs/calendar/current/e-2.html>

LATE SUBMISSIONS

All late submissions of assignments must be discussed with the instructor **prior to the due date**. Students may be required to provide written documentation of extenuating circumstances (e.g. statutory declaration, doctor's note, note from the University of Calgary Wellness Centre, obituary notice). A deferral of up to 30 days may be granted at the discretion of the Associate Dean of Undergraduate Programs with accompanying written evidence.

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

| 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 2019 – 2020 academic year is Jonah Secreti, jonah.secreti@ucalgary.ca, esa@ucalgary.ca.

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