



Department of Curriculum and Pedagogy

EDUC 450B 305 (3): **Inquiry Seminar I: Design and Technology Education** W1 2018

Instructor: Stella Name & Dr. Stephen Petrina

Office Hours: By appointment

Office: Scarfe 1224 & 2331

Email: stellama@mail.ubc.ca stephen.petrina@ubc.ca

Course Blog: <http://blogs.ubc.ca/dandt>

COURSE DESCRIPTION

Inquiry is understood as a deliberate, sustained and systematic process—beyond the everyday reflection required in teaching. Professionals explore what they do and how they do it; it involves sharing one's inquiries with colleagues. It involves classroom teachers, individually and collectively, in a cycle of action, reflection, sharing and adaptation. Teachers are given opportunities for practice, and to address challenges and issues that arise through discussion and reflection, try out new or revised practices, and evaluate the results. The cycle then begins anew based on the outcomes, responses, and possibilities emerging from the inquiry.

In this course, teacher candidates formalize their engagement in teacher inquiry and inquiry-base learning (IBL) based on a question/proposal they individually develop and explore.

EDUC 450, 451, 452: Inquiry Seminars I, II, III (Secondary)

The inquiry process across the BEd (Secondary) program consists of:

1. Learning about teacher inquiry; (*EDUC 450 – Inquiry I*)
2. Preparing to explore an inquiry question; (*EDUC 450 – Inquiry I*)
3. Developing and sharing one's inquiry process; (*EDUC 450/451 – Inquiry I & II*)
4. Exploring links to practice; (*EDUC 451 – Inquiry II*)
5. Reflecting on the inquiry process, links to practice, ongoing questions, learning over the year and developing professional learning goals. (*EDUC 452 – Inquiry III*)

LEARNING OUTCOMES

Upon completion of this course, the student will have:

- an understanding of *applied design, skills, and technology (ADST)* teaching as a moral and intellectual activity requiring inquiry, judgment and engagement with complex situations and relationships — with students, parents, colleagues and the scholarly community.
- an appreciation of the importance of research and reflection in understanding *applied design, skills, and technology (ADST)* curriculum, teaching and learning.
- a desire to engage in their own educational inquiries — to become students of teaching.

Required Readings

Required: Petrina, S. (2007). *Advanced teaching methods for the technology classroom*. Hershey, PA: Information Science Publishing. <http://bit.ly/2wFsW6x>

BC's New Curriculum (Relevant ADST documents): <https://curriculum.gov.bc.ca>

Resources & Readings: Download at <http://blogs.ubc.ca/dandt>

COURSE OUTLINE

Every effort has been made to ensure the alignment of assignments with your other courses however, if there is an issue or a discrepancy please notify your instructor as soon as possible.

<i>Sept 6</i>	Theme: Teacher Inquiry and Inquiry-Based Learning (IBL)	
Topic	<i>Understanding Inquiry</i>	
Guiding Questions	I.	What is this course about?
	II.	What are the values we should be considering, teaching, and practicing?
	III.	What kind of teacher do I want to be? Am I an instructor? A facilitator? A coach? A mentor?
Activities	<i>Teaching Perspectives Inventory (TPI)</i> <ul style="list-style-type: none"> • Teaching Perspectives Inventory (TPI) http://www.teachingperspectives.com/tpi/ • What do you believe about teaching and learning? • What do you hope to accomplish in your teaching? • What you hope to do when you are teaching? 	
<i>Sept 13</i>	Theme: Exploring teacher inquiry & IBL	
Topic	<i>Inquiry-Based Learning</i>	
Guiding Questions	I.	How do I begin teacher inquiry?
	II.	What are the reasons for engaging students in IBL?
	III.	What is the role of a professional learning network?
Readings	*	Babione, C. (Ed.). (2015). Where we begin. In <i>Practitioner teacher inquiry and research</i> (pp. 81-85). San Francisco, CA: Jossey-Bass.
	*	Stephenson, N. (2011). Introduction to IBL (pp. 1-4). ISTE https://www.iste.org/resources/product?id=2019&name=Intro+to+Inquiry-based+Learning%2C+Part+2
Activities	<ul style="list-style-type: none"> • SWOT Analysis for Stephenson • Introducing blogs (blogs.ubc.ca accounts) <p>Part II: Teacher Professionalism / Digital Tattoos</p> <ul style="list-style-type: none"> • O'Reilly, T. (2016). <i>Selling yourself: The art of personal branding</i>. CBC Radio. Podcast: Season 4, Episode 20 https://itunes.apple.com/ca/album/under-the-influence-season-4/id1010841917 Script: http://bit.ly/1dDqguP • BCTF code of ethics: http://bit.ly/2f0UJXp 	
<i>Sept 20</i>	Theme: Becoming a reflective practitioner	
Topic	<i>The reflective practitioner</i>	
Guiding Questions	IV.	Why should I become a reflective practitioner?
	V.	What is reflective practice in technology education?
	VI.	What is the role of a professional learning network?
Readings	<ul style="list-style-type: none"> • Petrina, S. (2017). From crit to social critique. In M. J. de Vries (Ed.), <i>International handbook of technology education</i> (pp. 39-50). Dordrecht, NL: Springer. 	
Activities	<ul style="list-style-type: none"> • Jigsaw activity for Petrina • Llewellyn's (2007) scaffold for IBL questioning • Pecha Kucha Preparation • Introducing blogs (blogs.ubc.ca accounts) 	
<i>Sept 27</i>	Theme: Pecha Kucha: Presenting, Sharing, Exploring and Receiving Feedback	
Topic	<i>Practice teaching (Microteaching) and reflection</i>	
Guiding Questions	I.	What are my reflections on feedback generated from my Pecha Kucha?
	II.	Am I prepared? Am I prepared to give and receive sandwich feedback? Am I

		professional?
Readings	*	Petrina, S. (2007). Communication and planning for instruction. <i>Advanced teaching methods for the technology classroom</i> (pp. 1-24). http://blogs.ubc.ca/dandt/files/2014/07/Petrina2007.pdf
Assignment	*	Pecha Kucha
Activities	•	
Oct 4	Theme: Reflection, Questioning, and Inquiry	
Topic	<i>Presenting & Questioning in Design and technology</i>	
Guiding Questions	I. II. III.	What are the pedagogical and performative elements of giving a presentation? What impact does presentation, or delivery, have on the tone of your classroom? Why do we need a framework of different types of questions? How do we nourish IBL through types of questions?
Readings	*	Tufte, E. (2006). The cognitive style of Power-Point slides. In <i>Beautiful evidence</i> (pp. 157-185). Cheshire, CT: Graphics Press. http://bit.ly/19f7e13 * TED talks public speaking playlist: http://bit.ly/1ztm0EUs * Llewellyn, D. (2012). Types of questions. In <i>Inquire within</i> (p. 134). Thousand Oaks, CA: Corwin.
Activities	•	Design and technology presentation tutorial Brainstorm inquiry project and question ideas Working on Inquiry Project Proposal
Oct 11	Theme: Proposing an Inquiry	
Topic	<i>On passion, curiosity, and professional learning</i>	
Guiding Questions	I. II. III.	What are the stages of inquiry? What are some questions I have about ADST and teaching, learning and curriculum? Why are these questions significant, and to whom? What are you both curious and passionate about in relation to teaching?
Readings	•	Babione, C. (Ed.). (2015). Where we begin practitioner teacher inquiry. In <i>Practitioner teacher inquiry and research</i> . San Francisco, CA: Jossey-Bass.
Activities	•	Working on Inquiry Project Proposal
Oct 18	Theme: Socratic Classrooms	
Topic	<i>Socratic inquiry and method in the classroom</i>	
Guiding Questions	I. II.	How can a Socratic classroom be established classroom? What are some advantages of Socratic method?
Readings	*	Chesters, S. D. (2012). Socratic pedagogy. In <i>Reflective thinking through collaborative inquiry</i> (pp. 11-40). Rotterdam, NL: Sense. *Read pp. 33-39.
Activities	•	Socratic Questioning a) Six types of Socratic questions: http://bit.ly/2hS1A8k b) How to do the Socratic Method: https://youtu.be/_CPLu3qCbSU • Blogs cont'd (blogs.ubc.ca) • IBL cont'd • Working on Inquiry Project Proposal
Oct 25	Theme: Advancing an Inquiry Proposal	
Topic	<i>Leading a Discussion</i>	
Guiding Questions	I. II.	What do I want to share and learn about my inquiry topic? Am I prepared to lead a discussion on my inquiry topic?
Readings	*	TBA

Activities	<ul style="list-style-type: none"> Working on Proposal and preparing for Microteaching
Nov 1	Theme: Microteaching: Sharing, Exploring and Receiving Feedback on Inquiry Proposal
Topic	<i>Practice teaching (Microteaching) and reflection</i>
Guiding Questions	III. What have I learned about my inquiry topic? IV. Am I prepared? Am I prepared to explore issues related to my inquiry project?
Readings	* TBA
Assignment	* Microteaching #2
Activities	<ul style="list-style-type: none"> Working on Inquiry Project Proposal
Nov 8	Theme: Preparation
Topic	<i>Preparing for the Short Practicum</i>
Guiding Questions	I. Am I prepared for the practicum? II. What more can or should I do?
Readings	* NA
Activities	<ul style="list-style-type: none"> Practicum preparation
November 13 – 23	
No classes for School-based Orientation Practicum	
Nov 29	Theme: Sharing, Exploring and Receiving Feedback
Topic	<i>Practice teaching (Microteaching) and reflection</i>
Guiding Questions	III. Based on a lesson from your practicum, what went well? What would you change? IV. Given the opportunity to do it again, what would you improve upon?
Readings	* NA
Activities	<ul style="list-style-type: none"> Working on Inquiry Project Proposal
Dec 6	Theme 10: Sharing, Exploring and Receiving Feedback
Topic	<i>Term conclusion</i>
Guiding Questions	I. Were your goals for the term achieved? Why or why not?
Readings	* NA
Activities	<ul style="list-style-type: none"> Working on Inquiry Project Proposal Course and Term Celebrations
December 6 -- End of Term	
Inquiry Proposal Due	

COURSE EVALUATION

Pass / Fail Grading

Most courses in the Teacher Education Program use a pass/fail grading system. In a professional faculty, passing a course involves both good academic performance as well as active participation in learning activities. Students are expected to meet all criteria to receive a passing mark. If assignments do not meet expected standards, candidates will have one opportunity to revise and resubmit assignments. In most instances where an assignment is late or does not meet expectations (timeliness or content), the instructor and the Teacher Education Office will issue an interim report.

Assignment Schedule

Assignment	Due Date:	Percentage
1. Class participation (in-class)	Ongoing	20%
2. Microteaching and feedback		
o Session 1	September 27	30%
o Session 2	November 1	15%
3. Inquiry Proposal	December 6	35%

1. Participation [Due: Ongoing] (20%)

Participation is interdependent with **preparation** for each class, which involves;

Reading, Listening, Watching (videos and articles, comments & questions, etc.),

Writing and **Speaking** (discussing, corresponding with peers, chat, personalizing lessons, etc.). In addition, participation in-class involves,

Designing and **testing** (resolving challenges, manipulating materials, coding, etc.) and

Critiquing (providing critical design feedback and suggestions to peers)

Expressing in polished and unpolished, **creative, unique**, and informative ways.

Participation (20%)

Low-----Avg-----High Appropriately and accurately prepares and participates in activities, readings discussions, reflections, etc. F-----P
Level of participation in activities and group work is high quality and professional, etc. F-----P
Demonstrates creativity, curiosity, enthusiasm, and in-depth exploration of IBL. F-----P
Total: P / F

3. Microteaching and Feedback (6.6 min + 7-8 min): 45%

The intention of this requirement is to help you develop artful and logical approaches to demonstrating and presenting in the classrooms, labs and workshops. This will also provide a tangible way of understanding the importance of small scale planning in curriculum.

Microteaching involves completing a lesson plan or portion of a lesson plan, teaching the lesson or giving a demonstration (or part) to the class and looking at ecological implications, sharing expertise with colleagues, presenting information, and using appropriate pedagogical approaches and technologies. The first session is Pecha Kucha style, which also includes reflecting on the lesson and providing feedback to peers. The Pecha Kucha will be recorded (video). (Please bring your USB flash drive for file sharing).

Topic for Session I Microteaching lesson (Pecha Kucha) on (choose one): 1) Recruiting students
September 27 into ADST courses; 2) Teaching ADST or D&T or M&T or STEM to grades K-3, 4-5, or 6-7 students; 3) Teaching about technology and the environment (e.g., AT, ecotechnology, sustainable materials, etc); or 4) Indigenuity— Indigenous or First Nations designs and technologies.

Topic for Session II This is a session for exploring your inquiry topic. Prepare a presentation of your
November 1 draft, in-progress inquiry topic and questions. Use IBL, Socratic questioning, and discussion techniques to involve your audience of peers. Time = 7-8 min.

Session 1: Create a Pecha Kucha (20 images x 20 seconds) and present it to the class (see <http://pechakucha.org/faq>). The rules: create 20 slides that advance every 20 seconds automatically, as you speak along with the slides. Your goal is to deliver a compelling performance to your peers, so please practice, practice, practice!

1. Complete a 6 minutes and 40 seconds (= 400 seconds) demonstration in front of the class.
2. Use the Smartboard, Keynote, PowerPoint, or other professional-level educational technologies and applications in a Pecha Kucha style (pre-programmed 20 seconds per slide timing).
3. Prepare to provide and receive feedback from your classmates (details to follow in class).
4. Prepare to have your microteaching and feedback session recorded, so that you may reflect on your teacher experience.
5. Provide reflective summary on your e-portfolio about your experience.

Microteaching Experience (Pecha Kucha)

Low-----Avg-----High
Lesson Planning (comprehensiveness, clarity of objectives, focus) F-----P
ADST - Goals & Objectives, Comprehensiveness of Information, Questioning, Closure F-----P
Effectiveness of Lesson Delivery, Motivational Beginning, Voice, Classroom Presence, Non-Verbal Communication, Pacing F-----P
Pecha Kucha Slides & Visuals, supplementary materials and Quality F-----P
Total: P / F

4. Inquiry Proposal [Due: December 6, 2018] (35%)

Propose an inquiry project inspired by your own questions, interests, and needs. Examples of projects include inquiry around a theme or method (e.g., Problem & Project-Based Learning, Service Learning), a teaching strategy (e.g., Discipline with Dignity), a particular curriculum emphasis (e.g., new ADST courses), or an educational issue (e.g., teaching job market). The Inquiry generally consists of three parts:

1. Preparing the Inquiry Proposal (EDUC 450)
2. Conducting and Presenting the Inquiry Project (EDUC 451)
3. Completing and Presenting the Final Inquiry Project (EDUC 452)

Inquiry Project Proposal Format (1.5 - 2 pages)

(NOTE: All Inquiry Projects must be approved before the inquiry begins)

Section	Pages
Working Title	NA
1. Introduction: What are your general and more specific interests in what you want to explore across the Inquiry timeline? This reflects a focus on your practice and the technology education curriculum (e.g., classroom management, gender, safety).	(1/4 page or less)
2. Inquiry Question(s) or Problem: What is the question (or are the questions) that ground(s) your inquiry?	(1/4 page or less)
3. Inquiry Purpose: Why is this important? Who is the potential audience or participants that will likely gain from your inquiry?	(1/4 page or less)
4. Key or Critical Concepts: Identify 2-3 concepts that you intend to explore or focus on in your inquiry. Provide a brief description of these or definitions as related to your interests and inquiry.	(1/4 page or less)
5. Ethical Considerations: Identify any ethical considerations that may arise in your inquiry or ethical problems that will have to be resolved before or during the inquiry.	(1/4 page or less)
6. References and Apps: Add any references or apps that are important.	(1/4 page or less)

TEACHER EDUCATION PROGRAM EXPECTATIONS

This course is guided by the *Teacher Education Program Policies and Guidelines*. Complete policies and guidelines can be accessed from the Teacher Education Office (TEO) online here:

<http://teach.educ.ubc.ca/students/policies-and-guides/teacher-education-program/>

Respectful Learning Environment

The University of British Columbia envisions a climate in which students, faculty and staff are provided with the best possible conditions for learning, researching and working, including an environment that is dedicated to excellence, equity and mutual respect. In addition, the University believes that every student, faculty and staff member has the right to study and work in an environment that is free from discrimination and harassment as a result of age, race, colour, ancestry, place of origin, political belief, religion, marital status, family status, physical or mental ability, sex or sexual orientation. Information about resources for students with disabilities available for UBC students, is located online here:

<https://students.ubc.ca/about-student-services/access-diversity>

Accountability for Learning

Teacher candidates are expected to actively participate during the learning experiences of the program. Almost all courses in the Teacher Education Program are graded as Pass/Fail. In order to pass a course, you will be expected to produce high quality work that meets criteria provided by instructors. You will be advised by your instructors if any aspect of course work does not meet expectations. You may be expected to revise and re-submit an assignment or do a supplemental assignment to demonstrate that you have met expected standards. *If you receive an interim report regarding course concerns and have questions, please speak with your instructor and/or with a program coordinator in the TEO.*

Attendance and Participation

The nature of the Teacher Education Program is highly participatory. Regular attendance of all classes and the timely completion of assignments are essential to success in the Teacher Education Program. It is important that teacher candidates understand and value the time commitments made by faculty and colleagues to their learning given the highly participatory nature of the Teacher Education Program. *Regular attendance in all classes and field experiences is a professional commitment that is expected of all teacher candidates and a requirement of professional practice.* If you must miss a class, notify your instructor and fill out the following Attendance online: <http://teach.educ.ubc.ca/students/attendance/>.

Academic Regulations

Teacher candidates are expected to: 1) adhere to academic regulations in the UBC calendar; 2) cite references when using information or materials developed by others, including information and materials from the Internet; 3) submit a separate and distinct assignment for each course (A single assignment cannot be used for more than one course, unless prior approval from the instructor is granted); and 4) abide by copyright laws and regulations.

Health & Wellness

Mental health and wellness are important parts of your academic success and everything you do. When you take care of yourself, it's easier to achieve your goals and feel good in life. UBC has a number of resources for you to take advantage of including self-help, peer support, medical services, and mental health support through UBC Counselling Services. <https://students.ubc.ca/health-wellness>

Financial Distress

If you find yourself in financial distress, there is help available. Speak to an advisor in the TEO and also visit <https://students.ubc.ca/enrolment/finances/funding-studies/financial-distress> for assistance.