



UNIVERSITY OF
CALGARY

CERTIFICATES IN UNIVERSITY TEACHING AND LEARNING

Graduate Students

Year-end Report, July 2018

Introduction

The Graduate Student Certificate in University Teaching & Learning is a flexible and comprehensive program that helps graduate students develop a reflective, evidence-based, and theoretically-informed approach to teaching and learning. In this certificate program, graduate students explore cutting-edge teaching and learning practices, experiment with the latest learning technologies, prepare for competitive job markets, and build connections with fellow graduate students across campus.

The Taylor Institute for Teaching and Learning offers five teaching development programs, through which participants can earn a digital badge as recognition of their achievement. Graduate students who earn all five digital badges complete the Graduate Student Certificate in University Teaching and Learning.

The five teaching development programs are:

- 1 Emerging Teachers Development**
- 2 Scholarship of Teaching and Learning (SoTL) Foundations**
- 3 Learning Spaces and Digital Pedagogies**
- 4 Theories and Issues in Teaching and Learning**
- 5 Developing Your Teaching Dossier**

By the end of the certificate program, graduate students have:

- Engaged in collaborative, critically reflective conversations with colleagues to explore current issues, theories and research in postsecondary education
- Identified and implemented research-informed teaching methods that enhance participant learning
- Practiced peer teaching, and collecting and responding to feedback from colleagues
- Articulated a research question and developed a plan to conduct a SoTL project
- Evaluated and selected effective learning technologies and maximize spaces to enhance participant learning
- Developed a teaching philosophy/dossier that aligns key beliefs about teaching and learning to sources of evidence drawn from participation in the certificate program

*All participant work included as exemplars in this report has been approved for inclusion by the graduate students.

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Workshops by the Numbers

Workshop registrations by faculty/department

	Unique
Arts	203
Cumming School of Medicine	26
Environmental Design	7
Haskayne School of Business	6
Kinesiology	7
Law	0
Libraries and Cultural Resources	0
Nursing	5
Nursing Qatar	0
Schulich School of Engineering	57
Science	68
Social Work	10
Taylor Institute for Teaching and Learning	2
Veterinary Medicine	5
Werklund School of Education	69
Other	7
TOTAL	481

Of the 481 unique graduate student participants, 245 (51%) indicated they are currently teaching. The teaching experience of the postdoctoral scholars in the workshops ranged from never having taught ($n = 63$) to greater than 10 years of teaching experience ($n = 17$).

Teaching experience	N
Not yet	63
< 1 year	106
1-3 years	132
3-6 years	63
6-9 years	18
10 + years	17



Emerging Teachers Development

The Emerging Teachers Development Program offers a series of workshops for graduate students interested in developing their university teaching, with opportunities for discussion, practice, and reflection. Those who complete a minimum of five workshops in this program then write and submit a reflection that demonstrates their learning from participation in the workshops are eligible to earn the Emerging Teachers Development badge.

Emerging Teachers Development by the Numbers

	Overall
Arts	10
Cumming School of Medicine	1
Environmental Design	0
Haskayne School of Business	0
Kinesiology	0
Law	0
Libraries and Cultural Resources	0
Nursing	1
Nursing Qatar	0
Schulich School of Engineering	4
Science	4
Social Work	0
Taylor Institute for Teaching and Learning	0
Veterinary Medicine	0
Werklund School of Education	1
Other	0
TOTAL	26*

*not all recipients indicated a faculty/departement

Reflective statements

To complete the Emerging Teachers Development program, graduate students write a summary reflective statement identifying what they learned, how they would apply it, and how their beliefs about teaching and learning are developing. Below are two exemplars from graduate students' reflective statements.

"I plan to continue to reflect and experiment on my teaching practice with strategies I learned from the workshops over the course of the next academic year.

The workshops helped me reflect on my own experiences more critically, and also exposed me to strategies I had not considered. I realized that by asking engaging questions and choosing the right discussion strategy, I am able to reach students who might not otherwise have been as engaged as I was.

The most important change that I have made to my teaching practice is to be more deliberate about considering what I expect students to take away from the classroom, and what evaluation and teaching methods best support those outcomes."

Connor Molineaux, Graduate Student, Faculty of Arts

"I thought that the traditional lecture model, the "cookbook" approach to laboratory classes and assessments using multiple choice questions in science were the only way to teach and evaluate a large group of students and provide them with basic scientific concepts, that having a large class hindered other types of activities. This belief came from my own experience as a student, I found most of those classes boring, but I thought they were a "necessary evil." By developing my teaching philosophy, learning about different assessment methods, getting interested in SoTL research, but also reflecting on my own successful learning experiences, I realized that learning about science and developing scientific research skills requires student engagement. I now believe that it is possible to have an interactive classroom that fosters student inquiry and discussion even in introductory courses with a large number of students. Attending the workshops helped me realize what type of teaching I want to do and provided me the appropriate tools to do it."

Ariane Cantin, Graduate Student, Faculty of Science



Scholarship of Teaching and Learning Foundations

The Scholarship of Teaching and Learning (SoTL) Foundations Program invites graduate students to join discussion-based sessions focused on foundational SoTL readings, participate in their choice of workshops, and draft a preliminary SoTL plan. Participants learn about scholarly, evidence-based approaches to student learning and teaching and have the opportunity to reflect and build upon their own teaching and learning experiences.

Scholarship of Teaching and Learning Foundations by the Numbers

	Overall
Arts	9
Cumming School of Medicine	1
Environmental Design	0
Haskayne School of Business	0
Kinesiology	0
Law	0
Libraries and Cultural Resources	0
Nursing	1
Nursing Qatar	0
Schulich School of Engineering	3
Science	3
Social Work	0
Taylor Institute for Teaching and Learning	0
Veterinary Medicine	0
Werklund School of Education	2
Other	0
TOTAL	18

SoTL plans

Graduate students are asked to engage in a meaningful way with a question about teaching and learning that piques their curiosity. They draw from their methodological training and teaching and learning experiences to develop a SoTL plan. Below are exemplars from graduate students' SoTL plans.

Proposed research question: Would using a simulation better help students learn the uses and importance of the control in experiment design compared to traditional power point presentation and example experiment?

Reflection on SoTL Foundations readings:

The most influential in changing my thinking were Felten's principles, as I would never have thought of including students in the SoTL process. Bass's paper was the other invaluable paper. I found it useful for creating a mental framework to understand the problems I was seeing in my lab. This is critical for being able to come up with a SoTL project.

Ryan Tate, Graduate Student, Faculty of Science

Proposed project: Developing an app to support student learning in an engineering course

Reflection on SoTL Foundations readings:

Through the reading sessions and workshops, I have learned that SoTL is the field of research dedicated to improve the learning and teaching experience and have developed the necessary mindset and skills to conduct my own SoTL research if desired. I believe that what I've learned over this semester will be a great asset to me in approaching the role of teaching in my future.

Mai Tanaka, Graduate Student, Schulich School of Engineering



Learning Spaces and Digital Pedagogies

The Learning Spaces and Digital Pedagogies Program offers a series of workshops for graduate students interested in learning about how learning spaces and digital pedagogies can be integrated in teaching practice. Participants who complete a minimum of four workshops in this program, as well as an online exercise, are eligible to earn the Learning Spaces and Digital Pedagogies badge.

Learning Spaces and Digital Pedagogies by the Numbers

	Overall
Arts	1
Cumming School of Medicine	2
Environmental Design	0
Haskayne School of Business	0
Kinesiology	0
Law	0
Libraries and Cultural Resources	0
Nursing	0
Nursing Qatar	0
Schulich School of Engineering	2
Science	0
Social Work	0
Taylor Institute for Teaching and Learning	0
Veterinary Medicine	0
Werklund School of Education	2
Other	0
TOTAL	7

Developing a learning activity

Graduate students are asked to design a learning activity that is posted online for peer sharing and feedback. Below is an exemplar from a graduate student's learning activity created as part of this badge program.

Screencast recording for flipped lesson

"I created a 7-minute review video on p-values using an example. The video discussed what p-values do and do not mean and why they are important. I created the video using the screen record feature on my iPad and I recorded my screen and voice while I used an Apple Pencil to annotate and draw overtop of a couple of review PowerPoint slides. The video was then uploaded to our courses D2L website. Since posting the video has been viewed (or at least that page has been visited) by 85% of the students in my class (according to D2L reports), but I have also had several comments from students in person and via email that they found the video useful and wonder if I'll make more in the future.

Aside from using this as a review video I think for me this a first step to creating a flipped lesson which is a goal I have for my classroom as flipped learning has been shown to increase student grades, understanding, and satisfaction specifically in statistics."

Jessalyn Holodinsky, Graduate Student, Cumming School of Medicine



Theories and Issues in Teaching and Learning

In this cohort-based program, graduate students explore research about how learning happens, discuss how to plan lessons that enhance learning, focus on how to give and receive high quality feedback, and design a learning activity for the group that address a current theory or issue in teaching and learning in higher education.

Theories and Issues in Teaching and Learning by the Numbers

	Overall
Arts	6
Cumming School of Medicine	2
Environmental Design	0
Haskayne School of Business	0
Kinesiology	0
Law	0
Libraries and Cultural Resources	0
Nursing	0
Nursing Qatar	0
Schulich School of Engineering	5
Science	2
Social Work	0
Taylor Institute for Teaching and Learning	0
Veterinary Medicine	0
Werklund School of Education	3
Other	0
TOTAL	18

Developing a lesson plan

In this badge program, graduate students plan, lead, and receive feedback on a learning activity about a theory or issue in higher education. Below is an example of a lesson plan created by a graduate student.

Lesson title: Implementing retrieval cues in test writing

Learning objectives: attendees should be able to:

- Define retrieval cues
- Understand the value of retrieval cues for student's learning
- Implement the use of retrieval cues in their own test writing

Learning activities:

- Comparing crossword puzzle cues and retrieval cues
- Small group discussion
- Guided pair practice

Allyson Gibson, Graduate Student, Faculty of Arts



Developing your Teaching Dossier

This intensive, cohort-based series, graduate students develop teaching philosophy statements and learn how to integrate them with artifacts of teaching and learning into a dossier format. Working sessions support graduate students throughout the process, while peer review sessions provide opportunities to give and receive feedback for further dossier edits and development.

Developing your Teaching Dossier by the Numbers

	Overall
Arts	5
Cumming School of Medicine	3
Environmental Design	1
Haskayne School of Business	0
Kinesiology	0
Law	0
Libraries and Cultural Resources	0
Nursing	1
Nursing Qatar	0
Schulich School of Engineering	4
Science	1
Social Work	0
Taylor Institute for Teaching and Learning	1
Veterinary Medicine	0
Werklund School of Education	3
Other	0
TOTAL	19

Teaching philosophy statements

By the end of the Developing your Teaching Dossier badge program, graduate students create organized, integrated, and cohesive dossiers that highlight their current (or future) teaching practices. Below are two exemplars from graduate students' teaching philosophy statements.

"Equally important to me is my commitment to continuous improvement through formative feedback that I can collect through self- reflection, student feedback, and colleagues' feedback. In the past, I always wanted to have my students engaged, but I did not know how to do this or to assess whether I was successful in doing this. I used to think of students' attendance and submitting their assignments as the only indicators that students are engaged. After the professional development activities that I have been involved in at Taylor Institute for Teaching & Learning at University of Calgary, I can use different methods to engage students such as having meaningful, relevant, and accessible content and interesting and interactive activities. I will ask for my students' opinion on how I do things and how they can be done in a better way, which will certainly engage my students. Self-reflection and taking notes on how classes and assignments go are a valuable source to me for continuous improvement and learning from the past."

D.A., Graduate Student, Faculty of Arts

"One of my fundamental goals as a teacher is to foster the ability to think critically and independently in my students. University students, specifically students in upper year courses are adult learners. University is a time for students develop their own intellectual beliefs/thoughts and to become independent thinkers. One of the ways I foster critical and independent thinking in my classes is to assign thought papers and discussion questions that students come up with based on the assigned readings. Rather than testing my students solely on content, which is covered through formal exams, I also invite them to engage with the readings on deeper level and to express their thoughts: what stood out for them? How does this relate to their current knowledge base? What are the implications and potential future directions? Did it inspire new questions?"

Hyoun S. (Andrew) Kim, Graduate Student, Faculty of Arts

Certificate Completion

Completion numbers

	Overall
Arts	0
Cumming School of Medicine	1
Environmental Design	0
Haskayne School of Business	0
Kinesiology	0
Law	0
Libraries and Cultural Resources	0
Nursing	0
Nursing Qatar	0
Schulich School of Engineering	2
Science	0
Social Work	0
Taylor Institute for Teaching and Learning	0
Veterinary Medicine	0
Werklund School of Education	1
Other	0
TOTAL	4

Evaluation data

A total of 22 graduate students completed badge level evaluation surveys. The following table demonstrates their perceptions of the program.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree
I feel MORE prepared for my current and/or future teaching, learning and research experience due to my participation in the program workshops			1	7	14
I WILL BE able to apply the material presented and discussions in the program workshops to my future teaching, learning and research experiences				8	14
Overall, the program workshops met (or exceeded) my expectations		1	1	8	12

“The certificate was a great opportunity to learn about new trends in teaching and learning.”

Anonymous graduate student survey response

Q: What topics presented program workshops were of the most benefit to you and why
A: “Goal-oriented practice and targeted feedback because of how they enhance learning. Constructive alignment because of how it can help students advance. Formative feedback because it creates an opportunity for growth. Piecing together a teaching philosophy statement and a teaching dossier because of how they highlight in detail who you are as a teacher, what your beliefs are and what you have accomplished through such beliefs but also areas you should strive to improve.”

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Anonymous graduate student survey response

Scholarly Dissemination

Manuscripts in Preparation

Nowell, L., Grant, K., Mikita, K., Berenson, C., Dyjur P., Jeffs, C., Kelly, P., Kenny, N., Norman, D., (2018)
New certificates in teaching and learning. Manuscript in preparation (to be submitted to
Innovative Higher Education)

Peer-Reviewed Conference Presentations

Grant, K., Nowell, L., Mikita, K., Berenson, C. Building SoTL communities through cohort-based graduate student and postdoctoral teaching development programs. Accepted for presentation at the Symposium on Scholarship of Teaching and Learning. Banff, AB November 8-10, 2018.

Grant, K., Nowell, L., Mikita, K., Berenson, C. New cohort programs, new communities of learning: How graduate student and postdoctoral teaching development can impact learning cultures. Accepted for presentation at the 2018 International Society for the Scholarship of Teaching and Learning Conference: Toward a Learning Culture. Bergen, NO, October 24-27, 2018.

Grant, K., Nowell, L. Real needs, authentic tasks: New teaching development certificates. Presented at the 2018 University of Calgary Conference on Postsecondary Learning and Teaching "Students as Creators, Drivers, Innovators and Collaborators". Calgary, AB, May 1-2, 2018.

Lessons Learned

Feedback from Educational Development Staff

What worked?

- Flexibility
- Collaboration and leveraging the strengths of the EDU
- Web presence and marketing
- Encouraged the development of new workshops
- Community development amongst participants
- Gathering useful feedback

What needs to be tweaked?

- Timing and scheduling of workshops
- Planning for growth and streamlining of workshops
- Process pieces (registration, tracking, and evaluation)
- Adding certificate contact details to registration pages for workshops that count towards badge/certificate completion
- Clearly identifying which workshops count towards badges and certificates
- Adding blended components
- Opportunities for co-facilitation and attending others workshops

Feedback from Participants

What worked?

- Highly engaging learning activities
- Important conversations about how to focus on student learning, not just teaching
- Ability to form relationship with peers from across campus
- Able to identify how to use concepts in current and future teaching
- Receiving direct feedback on my teaching
- Incorporating evidence into workshop content

What needs to be tweaked?

- Incorporating more flexibility for completion (offering each required option more than once)
- Include flipped/blended components
- More opportunities to lead learning activities/peer teaching
- Scheduling of mandatory workshops
- More content and less group work
- Incorporating more evidence into workshops

