

Teaching and Learning Fellows

Disciplinary Knowledge

Teaching & Learning

Research

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Research Interests

What are Teaching and Learning Fellows?

As a part of UBC's Flexible Learning Initiative, departments have been encouraged to employ Teaching and Learning Fellows (TLF), postdoctoral fellows with a strong disciplinary background and an interest in teaching and learning. TLFs are embedded within a department where they engage with faculty and support a wide variety of evidence informed transformation. TLFs complement and enhance faculty expertise in course development, transformation and evaluation by providing on-going support to faculty seeking to transform learning experiences. They also act as a valuable two-way conduit for the import and export of knowledge, expertise and skills between and across disciplinary groups and central services.

TLFs work collaboratively with faculty on course development, transformation and evaluation. They can spearhead resource development or implementation of pedagogical strategies in the classroom. They can also develop or strengthen evaluation and research activities around teaching enhancement, with the ability to link to Scholarship of Teaching & Learning (SoTL) work undertaken elsewhere at UBC.

Why appoint a TLF?

Many flexible learning projects are complex enough to require disciplinary experts who are able to devote a significant fraction of their time thinking about the challenges of educational renewal and evaluating the effectiveness of potential solutions. Existing faculty, no matter how interested they might be, are unlikely to be able to adequately address these issues in their limited spare time. Consequently, TLFs have been instituted to introduce a discipline-relevant, research-minded and evidence-based approach to supporting academic staff in achieving their teaching goals.

Who are they?

TLFs are discipline experts, with a postgraduate qualification (typically PhD level) and a deep knowledge of the values, practices and approaches to teaching within their discipline. They will likely have teaching experience and display a strong aptitude for developing both enhanced discipline-based and more general teaching, technology and pedagogical expertise.

Program	Project	TLF Role
Biology	Development of a flipped or blended pedagogy and associated resources for BIOL112 & BIOL121	Evaluation and assessment of project, ongoing support for instructors, developing learning objectives and final exam.
Chemistry	Creation of a suite of digital learning objects to facilitate learning of course topics outside of class, along with in-class activities to focus class time on the application of content knowledge.	Development of online learning components (quizzes, videos, reading assignments) and in-class activities with group work, project evaluation.
Geography	Development of online content, assessments, classroom and group activities in 10 targeted courses along with a concept inventory and Interactive Digital Landscape Modules.	Coordinating redesign of multiple courses, development of online activities, curriculum mapping and alignment.
Mathematics	Redesign of MATH104 and MATH184 to include online learning components and increased in-class activities. This also includes a student developed study tool and instructor resources.	Assist in the development of course materials, supervise undergraduates created students generate content.
Nursing	Redesign undergraduate curriculum to include flexible, blended learning activities and to reflect innovative care delivery.	Support faculty and students, develop active & experiential learning activities for clinical skills lab and classroom settings, project evaluation
Statistics	Cross-faculty analysis of what introductory statistics is taught in various specializations; determine needs and develop a proposal for resource development.	Compile learning objectives from courses across UBC in order to identify targets for new resources. Develop and deploy a rubric for existing multimedia materials.
VP Students	Research and disseminate findings of students' experiences with FL, support UBC community in evaluating student experience in FL.	Develop research project, which includes quantitative and qualitative components, RA supervision, incorporating Teaching Assistant's experiences in FL in broader research project

TLF Development Series

As most TLFs enter their roles with limited expertise in teaching and learning, early and sustained support to develop this expertise is critical. To meet this need, the TLF Development Series was formed through a strategic partnership between the Faculty of Science and the CTLT. The series builds on the success of the model used in the Carl Wieman Science Education Initiative and integrates a learning community model to "create connections for isolated teachers, establish networks for those pursuing pedagogical issues, meet early-career faculty expectations for community, foster multidisciplinary curricula, and begin to bring community to higher education (Cox, 2004)."

Format

- Weekly 1.5 hour meetings from Jan-April
- Pre-reading from How learning works with supplemental articles from both facilitators and participants
- Activity and discussion based sessions
- Online Basecamp collaboration space

Topics

Pedagogy	SoTL
<ul style="list-style-type: none"> • Prior Knowledge & Knowledge Organization • Knowledge Transfer & Knowledge Retention • Structuring the Learning Experience • Feedback & Formative Assessment • Motivation & Self-Directed Learning • Active Learning and Student Engagement 	<ul style="list-style-type: none"> • What is SoTL? • SoTL in the Disciplines • Developing a Research/Evaluation Question • Developing a Research/Evaluation Plan • Developing a Data Collection Plan • Tools for Data Collection

Future sessions planned to discuss data analysis, design of online learning experiences and other topics.

We'd like to thank the following
The TLFs: Megan Barker, Heather Dories, Marc Legacy, Martha Mullally, Amanda Musgrove, Maryam Nabavi, Ed Richmond
Our other participants in the development series: Wes Maciejewski and Jared Stang
Development Series Guest facilitators: Simon Bates, Ido Roll, and Ashley Welsh

Megan Barker & Martha Mullally (Biology)

- Student understanding and the scale of their understanding around "what is a gene."
- Changes in student learning in and attitudes towards Biology
- Whether time on task in the classroom correlates to increased learning gains.
- Instructor practices and perspectives about teaching practice.
- TA perspectives about their work and how their time is used.

Heather Dories (Geography)

- What factors motivate students to major in Environment & Sustainability?
- What value do students place on education in the program?
- What strategies do students employ to meet their educational goals? What experiences in their geography courses have been the most valuable to students in terms of achieving their goals?

Marc Legacy (Nursing)

- Student and faculty perceptions of pre-class flexible 'active' learning activities along with their perceptions of the ensuing in-class formative assessment.
- How has FL enhanced student learning and helped faculty deliver meaningful learning.

Amanda Musgrove (Chemistry)

- Effect of pre-reading assignments and homework on student learning
- How online pre-reading assignments affect student workload
- How students access and use online study materials
- Effect of videos in addressing common student misconceptions

Maryam Nabavi (VPS)

- In what ways do FL courses shape students' learning experiences?
- How are FL based approaches informing the overall student experience?

Ed Richmond (Math)

- The effect of the activity based class time (compared to lecture based) on the level of interest in math in students.
- The effect of online resources on student ability to learn math.