



*Council for Undergraduate Research Institute*



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## Transforming Undergraduate Research Culture and Curricula

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*June 12-14, 2018*

*Vancouver Island University*



## Welcome

*To the Snuneymuxw First Nation, Tla'Amin First Nation, Cowichan Tribes, Snaw-Naw-As First Nation, and Qualicum First Nation, we raise our hands and say Hay ch qa' sii'em sieye' yu mukw Mustimuxw.*

Welcome delegates! In 2008, VIU hosted the first CUR institute in Canada. Ten years later, this CUR institute will enable us to reflect upon and learn from a decade of tremendous success in undergraduate research initiatives at the participating institutions.

As co-hosts, Vancouver Island University and Thompson Rivers University want to thank you for joining us this week as we explore how to enhance opportunities for undergraduate students to engage in deep learning by engaging in research. Together, we will share our collective journeys, models, lessons learned and ideas and in doing so, we will leave with a rich understanding and action plans to continue this important work when finish the institute.

We would like to acknowledge funding from the Social Sciences and Humanities Research Council of Canada through the Small Institutions Grant which enabled the coordination of this event. Thank you also to Dr. Mitch Malachowski, Dr. Jenny Shanahan and Dr. Laureen Styles for facilitating this learning experience for the participating institutions.

Nicole Vaugeois, Ph.D.  
AVP, Scholarship, Research and Creative Activity,  
Vancouver Island University

Will Garrett-Petts, Ph.D.  
AVP, Research and Graduate Studies,  
Thompson Rivers University



## Purpose/goals/outcomes of the Institute

Undergraduate research has been recognized as an effective high impact practice and that benefits students, faculty and entire institutions. The purpose of this workshop is to enable participants who have been working at institutionalizing undergraduate research in a variety of ways to share their experiences and lessons learned and to work in small teams to build on their success. Participants will actively engage with members of their small team on a pre-identified plan of action that will enhance the culture of undergraduate research on their campus or embed undergraduate research into curriculum.

The traditional apprenticeship model of undergraduate research, where one or a small number of students work closely with a faculty member is powerful, but it is often difficult to scale so all students participate. At this CUR Institute, teams will explore multiple ways to think about scaling the benefits of undergraduate research to ensure it is a benefit that is accessible to a larger percentage of students. Ways to build capacity across campuses will also be discussed and numerous examples of successful programs will be shared.

## Outline of the program for the Institute

The workshop will consist of plenary lectures interspersed with individual team meetings with CUR mentors. The teams will come prepared for the workshop with an understanding of the current opportunities for students on their campus to access undergraduate research. They will be asked to identify or inventory the institutional and program level opportunities that exist.

The workshop will begin with participants discussing the status of undergraduate research on their campuses reflecting on the question “how accessible are the opportunities to engage in undergraduate research for our student body”? This will enable an understanding of where there are strengths to build on an opportunities to address to enhance the research culture in their institution/program. After this assessment, the teams will begin formulating mission statements, goals, and action plans to create enhanced access at their institutions. Particular attention will be given to developing research rich curricula as these can create expanded opportunities for students across programs. The event will conclude with the teams presenting their plans to the other participants. Throughout this process, the facilitators will be engaged with the teams in order to assist them in discussions and to help identify examples.

## BROADENING PARTICIPATION IN UNDERGRADUATE RESEARCH

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## Introducing the facilitators

### Mitch Malachowski



Mitch Malachowski received a B.A. degree in chemistry from Rhode Island College in 1977 and a Ph.D. in organic chemistry from the University of North Carolina at Chapel Hill in 1983. After teaching at Gettysburg College for one year, he joined the faculty at the University of San Diego in 1984. During 1992 he was a visiting professor at Leiden University, the Netherlands and in 2005, at the University of California at San Diego. Mitch served as Associate Dean of Arts and Sciences at USD from 1989 until he came to his senses in 1994.

Mitch was president of the Council on Undergraduate Research from 2002 to 2003 and has taken on many roles in the organization. Currently, he is the lead PI on CUR's \$1.8 million NSF Transformations Grant that focuses on developing research-rich curricula. Mitch has received several awards including one for teaching excellence from the University of North Carolina, the administrator of the year award at USD, the 2014 Outstanding Research Mentor Award at USD, the 1999 Davies Award for Teaching Excellence at USD, three University Professorships from USD, the 2012 Drinan Service Award from USD and the Charles B. Willard award for distinguished career achievement from Rhode Island College. He was the recipient of the 2014 CUR Fellows Award and was named the 2014 CASE/Carnegie Foundation California Professor of the year.

### Jenny Shanahan



Jenny Olin Shanahan, Ph.D. is Assistant Provost for High-Impact Practices at Bridgewater State University in Massachusetts, where she leads Undergraduate Research, the Honors Program, National & International Fellowships, and SOAR (Student Opportunities as Apprentice Researchers). Dr. Shanahan has been a Council on Undergraduate Research (CUR) Councillor since 2008 and has served on the Executive Board of the organization (2014-2016). She has co-edited 3 books and authored 13 articles and book chapters on undergraduate research, as well as presented dozens of keynote addresses and faculty workshops at institutions across the United States and Canada. She speaks most often about providing equitable access to undergraduate research and other high-impact practices for all students; embedding research and inquiry in the curriculum; and supporting excellent faculty mentorship, especially for underrepresented students.

## Laureen Styles



Laureen Styles, Ed.D. (Education Leadership) from the University of Calgary and is incoming Vice President Academic and Provost at Capilano University. She is currently teaching in the undergraduate nursing program at Vancouver Island University. Laureen has substantive experience through her various roles in higher education in undergraduate research (UGR) including her dissertation work, being a member of a small team at VIU involved in a multi-year Carnegie Foundation project with nine other institutions, mentoring faculty in various forms of undergraduate research, and coaching and supervising numerous undergraduate research students. Laureen values undergraduate research as an engaged pedagogy for student learning, an avenue for students and faculty to contribute to disciplinary knowledge, and the substantive positive impact that UGR can have when students focus their inquiries on questions that matter to groups, organizations, agencies, and communities. She sees opportunities in everything - and the opportunities for undergraduate research continue to expand and grow - so co-facilitating at the CUR Undergraduate Research Institute fits well with this orientation as it affords time for participants to explore and evolve undergraduate research plans for students, faculty, and institutions.

## Introducing the Institutional Panel

### Will Garrett-Petts, Ph.D.

Will Garrett-Petts is Professor of English & Modern Languages and Associate Vice-President of Research and Graduate Studies at Thompson Rivers University. His recent books and catalogues include *Cultural Mapping as Cultural Inquiry* (2015); *Whose Culture is it, Anyway? Community Engagement in Small Cities* (2014); *Writing about Literature* (2nd ed. 2013); *Imaging Place* (2009); *Artists' Statements and the Nature of Artistic Inquiry* (2007); *The Small Cities Book: On the Cultural Future of Small Cities* (2005); and *PhotoGraphic Encounters: The Edges and Edginess of Reading Prose Pictures and Visual Fictions* (2000). He is Series Editor (with Nancy Duxbury Carreiro) for *Small Cities: Sustainability in Community and Cultural Engagement* (University of Calgary Press); and he is engaged in exploring questions of visual and verbal culture, cultural and vernacular mapping, and the artistic animation of small cities. He also has a special interest in the theory and practice of including students in undergraduate research.

### Richard Isnor, Ph.D.

Richard Isnor is the Associate Vice President, Research & Graduate Studies at St. Francis Xavier University in Antigonish, N.S. Prior to joining St.F.X. he was Manager of the Atlantic Regional Office for the Natural Sciences and Engineering Research Council of Canada (NSERC), based in Moncton, NB. Previously, he was Director of Innovation Policy and Science at the International Development Research Centre in Ottawa and also worked for three years with the National Research Council of Canada managing Biotechnology Research Initiatives and the NRC Genomics and Health Initiative. His primary interest is in science policy and the public administration of research; he has worked in science and technology policy or research administrative positions for Environment Canada, Natural Resources Canada, the Privy Council Office, as well as the Nunavut Research Institute.

### Kathleen Manion, Ph.D.

Kathleen Manion is an educator and researcher who has spent the past 20 years working within social and community services. She is passionate about social justice and social inclusion and particularly interested in helping to bridge the gap between practitioner experiential knowledge, academic theory and policy objectives across multiple disciplines. Her interests lean towards supporting children and young people to reach their full potential. Using a variety of qualitative and quantitative research methodologies and community engagement processes, she has worked on projects tackling issues related to child protection, homelessness, healthy early childhood development, environmental protection, family violence, youth justice, and international social work.

### Sukh Heer Matonovich, M.A.

Sukh Heer Matonovich is currently the Manager for Graduate Studies and Student Research at Thompson Rivers University.

### Michael Quinn, Ph.D.

Michael Quinn serves as associate vice-president, Research, Scholarship and Community Engagement, at Mount Royal University in Calgary, A.B. In this position, he has been working to enhance the undergraduate experience, build collaborative partnerships and engage the community. Part of his aims are to promote interdisciplinarity, contribute to the betterment of society and catalyze new ideas and innovation.

### Nicole Vaugeois, Ph.D.

Nicole Vaugeois is currently the Associate Vice-President of Scholarship, Research and Creative Activity at VIU. Dr. Vaugeois works across the institution to create a culture of learning through research. This includes developing a strategy that enables students, faculty and staff to engage in a broad range of scholarship, research and creative activities. She brings a focus on how scholarship, research, teaching, community engagement and experiential learning are interwoven activities that create transformative learning experiences for students and mutual benefits for communities.

### Peter Wilkins, Ph.D.

Peter Wilkins is the Research and Innovation Office Coordinator at Douglas College. He publishes and presents regularly in the field of narrative drawing and comics scholarship and is co-editor of *The Comics Grid: Journal of Comics Scholarship*. Peter has worked at Douglas College for 20 years as an instructor in the English Department and more recently as the Faculty Research Liaison for The Training Group where he has designed and run special projects for at-risk and immigrant and refugee youth.

### Cynthia Zutter, Ph.D.

Cynthia Zutter is the Vice-Provost at MacEwan University in Edmonton, A.B. In this role she serves as the animator of academic development projects that are identified as priorities of the university's strategic plan including research culture development, academic program review and program changes as well as priorities linked to internationalization enterprises and student-focused curricular and learning initiatives. Dr. Zutter has also worked as an archaeologist throughout the North Atlantic region, examining past interactions and the interplay of humans in their environment.

## Introducing the Student Panel

### Samantha Chatterton

Samantha is a Sports, Health and Physical Education Major. Her research was focused on top and emerging issues seen by women's health focused physical therapists and the treatments methods used.

### Sara Fulla

Sara is a student in the Bachelor of Tourism Management at VIU. Sara has worked on a number of undergraduate research projects related to indigenous communities and tourism development. She was an assistant coordinator of the Sustainable Indigenous Tourism Conference held at VIU in 2017.

### Csilla Vasarhelyi

Csilla is a student in the Fisheries and Aquaculture program at VIU. She is currently working with Dr. Dan Baker and has received NSERC USRA funding facilitating her engagement with a project that will help establish how fish mitigate the stresses associated with global climate change and varying river conditions. Her own undergraduate research is investigating the ploidy levels in white sturgeon related to growth rate, fertility, and vitality. Results will be of interest to those involved in sturgeon enhancement, conservation and/or aquaculture.

### Courtney Vaugeois

Courtney is graduating with a Bachelor's Degree in Sociology. Her senior research project looked at how newcomers in Nanaimo find support. By conducting four focus groups with newcomers, including international students, they were able to get a sense of their experiences here in Canada. Data gathered indicated the kinds of support systems the newcomers rely on to help with their integration process.

### Genevieve Amaral

Genevieve also just completed her 491 project with Dr. Jamie Gorrell this past year and was recently bestowed the award of top GPA among all graduating students in the Biology Department at VIU. Recently, Genevieve learned that she has just been accepted into Medical School at UBC.



## Program at a Glance:

<b>Tuesday, June 12<sup>th</sup>, 2018</b>		
4:15 PM	B356, Main Entrance	Participants check-in and welcome
5:00 PM	B356, R109	Introductions and Overview
5:15 PM	B356, R109	Plenary 1: Changing the Culture Towards Integrating UR into the Curriculum: Mitch Malachowski
6:00 PM	B305, R507	Dinner
7:00 PM	B356, R209, 213, 217	Team-based Meetings with Facilitators
8:30 PM		Depart for a good night's sleep
<b>Wednesday, June 13<sup>th</sup>, 2018</b>		
8:00 AM	B305, R507	Breakfast
8:30 AM	B356, R109	Plenary II: Institutional Panel: decade of reflection on institutional advancement with UGR.
9:30 AM	B356, R209, 213, 217	Teams meet with Facilitators
11:00 AM	B356, R111	Break
11:15 AM	B356, R109	Plenary III: Transformational learning through UGR.
12:15 PM	B300, Royal Arbutus	Lunch: Birds-of-a-Feather Discussion and Networking Tables
1:30 PM	B300, Royal Arbutus	Plenary IV: Scaffolding Undergraduate Research across the Curriculum, from the First Year to Capstone Courses.
3:30 PM	B356, R209, 213, 217	Teams meet with Facilitators
4:30 PM	B356, R111	Break
4:45 PM	B356, R109	Strategic Groups
6:00 PM		Dinner on Your Own
<b>Thursday, June 14<sup>th</sup>, 2018</b>		
8:00 AM	B300, Royal Arbutus	Breakfast
9:00 AM	B356, R109	Plenary V: Leadership in undergraduate research: Perspectives and practices
10:00 AM	B356, R111	Break
10:15 AM	B356, R209, 213, 217	Teams meet with Facilitators
11:00 AM	B356, R109	Closing Plenary: Participants Share their Action Plans

## Detailed Program Schedule

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*Tuesday, June 12*

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- 4:15 PM Participants check-in and welcome
- 5:00 PM Introductions and Overview
- 5:15 PM **Plenary I: Changing the Culture Towards Integrating Undergraduate Research into the Curriculum.** *Mitch Malachowski*
- 6:00 PM Dinner
- 7:00 PM Team-based Meetings with Facilitators
- This initial meeting of the teams with the facilitators will focus on the opportunities that exist for institutions to develop research-rich curricula while at the same time, discussing the challenges that exist on campus to creating this new world.*
- 8:30 PM Departure to hotel
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*Wednesday, June 13*

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- 8:00 AM Breakfast
- 8:30 AM **Plenary II: Institutional Panel: decade of reflection on institutional advancement with UGR.** *Panelists include: Will Garrett-Petts and Sukh Matonovich (Thompson Rivers University), Peter Wilkins (Douglas College), Kathleen Manion (Royal Roads University), Cynthia Zutter (MacEwan University), Richard Isnor (St. Francis Xavier University) Michael Quinn (Mount Royal University)*
- Participating institutions will provide brief storylines of what strategies their institution have taken over the past decade to enhance opportunities for UGR and where they feel they need to focus on to enable greater access for their student body. This session will enable participants to learn from the strategies taken at different institutions while giving them ideas to pursue at the workshop.*
- 9:30 AM Teams Meet with Assigned Facilitator
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*What does our journey to support UGR look like in our institution? How accessible are the suite of opportunities for our student body to enable learning through UGR? How can we go from good to great?*

11:00 AM Break

11:15 AM **Plenary III: Transformational learning through UGR. Student Presenters – Sara Fulla, Courtney Vaugeois, Csilla Vasarhelyi, Samantha Chatterton**

This plenary will bring together a few students from under represented learners who have had transformational learning experiences by engaging in UGR. They will identify the benefits they received and relay important suggestions for participants about the need for enhanced access for students.

12:15 PM Networking lunch – VIU’s undergraduate students engaged in research during the summer will join us as well

1:30 PM **Plenary IV: Scaffolding Undergraduate Research across the Curriculum, from the First Year to Capstone Courses. Jenny Shanahan**

Integrating inquiry-based learning in curricula provides students with more equitable access to the benefits of undergraduate research. Disciplinarily appropriate, inquiry-driven assignments can be scaffolded throughout the curriculum, intentionally building students’ research and writing skills. Such an approach also ensures that undergraduate research counts in faculty workload. This plenary address provides practical ideas for faculty to create inquiry-based assignments and offers guidelines for departmental conversations about curriculum design, with the particular aim of building research-rich experiences throughout a program. It identifies the primary research skills students need early in their college career, in introductory courses; explains how students develop those skills for disciplinary research in content-rich courses in the major; and shows how those skills will benefit students in capstone research opportunities. A redesigned curriculum of integrated scholarly opportunities directly correlates with student success and excitement about the field of study.

3:30 PM Teams Meet with Assigned Facilitator

4:30 PM Break

4:45 PM Strategic Group discussions

*This session will provide more opportunity for institutional working groups to capture and integrate ideas from the day into their work.*

6:00 PM Dinner on Your Own (see end of program for suggestions)

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Thursday, June 14

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8:00 AM Breakfast

9:00 AM **Joint Plenary V:**

**Exposing pathways to undergraduate research: Ideas from across Canadian Universities** *Nicole Vaugeois*

Institutions provide students opportunities to engage in undergraduate research in a variety of ways. In order to maximize engagement in undergraduate research, it is important to understand whether or not the current pathways being promoted to students are both visible and accessible. This plenary will present insights gained from a critical review of Canadian Universities with respect to the pathways that are currently being promoted to their students. Thoughts on how institutions can identify and communicate these pathways to enhance the visibility of undergraduate research opportunities will be shared. Delegates will be encouraged to reflect on what pathways are in place at their own institutions as well as how effectively they are being presented to students.

**Leadership in undergraduate research: Perspectives and practices.** *Laureen Styles*

Leadership in undergraduate research happens at all levels of post-secondary institutions and is taken up in various ways. In the crowded space of higher education with many initiatives and priorities vying for time and commitments, particular approaches and practices may be more useful to further embed and integrate undergraduate research into universities. This plenary draws on key ideas from the CUR institute and furthers these by exploring perspectives and practices considering select leadership theories in the context of contemporary universities. Participants will be invited to examine future scenarios and contexts that may emerge at their own institutions and the leadership perspectives and practices that may be most influential in support of undergraduate research.

10:00 AM Break

10:15 AM Teams Meet with Assigned Facilitator

11:00 AM Action Plan Report Out by Teams;  
Closing Comments: Sustaining momentum

# Campus Map

<https://www2.viu.ca/map/>



## Restaurant suggestions

In no particular order and reservations are recommended

### Asteras Greek Taverna

<http://www.asteras.ca/>

Hours: 11am until late

Location: 347 Wesley Street

Phone: 250-716-0451

### La Stella Trattoria

<http://lastellatrattoria.com/>

Hours: 5pm – 9:30pm (Dinner)

Location: #1 – 321 Wesley Street

Phone: 778-441-4668

### Gabriel's Gourmet Cafe

<http://www.gabrielscafe.ca/>

Hours: 8am-7pm

Location: 39 A Commercial Street

Phone: 250-714-0271

### The Nest Bistro

<http://www.thenestbistro.com/>

Hours: 5pm to Late (Dinner)

Location: 77 Skinner Street

Phone: 250-591-2721

### Sukkho Thai Restaurant

<https://www.sukkhothai.ca/>

Hours: 5-8pm (Dinner)

Location: 123 Commercial Street

Phone: 250-591-8424

### The Firehouse Grill

<http://www.firehousegrillnanaimo.com/>

Hours: 11am-9:30pm

Location: 7 Victoria Road

Phone: 250-716-0323

### Penny's Palapa

<http://www.pennyspalapa.com/>

Hours: 11am-8pm

Location: #10 Wharf Street (Dock of Float H, in Waterfront Marina)

Phone: 250-753-2150

NOTES: