



6TH ANNUAL
PROMOTING DEEP
LEARNING IN
LARGER CLASSES

CENTRE FOR TEACHING & LEARNING

CONCORDIA UNIVERSITY

JANUARY 26 – FEBRUARY 16, 2018

concordia.ca/winterfest

WINTERFEST

PROMOTING DEEP LEARNING IN LARGER CLASSES AND WINTERFEST 2018

Join us for **WinterFest 2018**, where we'll take on the problematic of introductory/foundational courses. Foundational courses are intended to initiate the uninitiated into our discipline. Students face the challenge of learning difficult interrelated concepts and reshaping their mental habits into disciplinary ways of thinking. Professors are tasked with promoting this 'deep learning' while also facing large class sizes and a wide range of student motivation and performance abilities. In this context, deep learning—the process of making sense of and organizing knowledge within the discipline—often gives way to surface learning—the seeming rote memorization of disjointed facts—even in motivated students.

WinterFest 2018 brings together professors, instructional designers, educational researchers and others to explore the challenges and the unique opportunities presented by foundational courses.

With a specific focus on large, introductory courses, we'll address the pivotal role of assessment in promoting and shaping deep learning, with presentations on Jan 26th, a panel discussion on Feb 2nd and special guest speaker David Creelman (UNB) topping it off on Feb 5th. Also on tap are pressure-tested teaching methods that promote deep learning in large classes, with 3 presentations on Feb 9th and 3 more, including special guests from McGill Physics and Engineering, on Feb 16th. We look forward to exploring this issue with you.



ROBERT CASSIDY, PHD,
Director, Centre for Teaching & Learning

FRIDAY, JANUARY 26, 2018

10 – 11:30 A.M., *SGW FB-620*

RE-ENVISIONING YOUR ASSESSMENTS: GO ACTIVE

Active learning allows students to take on additional responsibilities, build on existing knowledge and share in the construction of new knowledge. It stimulates questioning techniques, dialogue, choices and involves a variety of strategies designed to promote greater overall student engagement. But what happens to student engagement when it comes to assessment? A central component and a real challenge faculty face when implementing active learning is how to make learner assessments equally active so that students experience

continuity. In this workshop we will look at practical strategies that can help faculty develop assessments that promote deeper learning with a particular emphasis on collaborative exams (two-stage exams). A portion of the workshop will be spent working collaboratively on the planning and design of assessments for active learning. Participants are encouraged to bring along an existing assessment to work on as part of the re-envisioning process.

[Register on-line for this workshop](#)



JOHN BENTLEY

As Senior Instructional Developer for the CTL, John's role is to oversee the planning and development of the CTL website, plan and communicate events, coordinate special learning projects and provide support to faculty with the adoption of technology and

innovative strategies for teaching and learning. Faculty wishing to adapt their courses to include a new focus on blended learning, active learning in the classroom and online learning can contact John for more information.



CAROL HAWTHORNE

Carol Hawthorne is a Curriculum Developer in the Centre for Teaching and Learning at Concordia University and a teacher at the university's Centre for Continuing Education. As an instructional designer, she is especially interested in student engagement and collaborative

learning methodologies. As an educator, her focus is on developing meta-cognitive strategies to help students become better learners.

FRIDAY, FEBRUARY 2, 2018

9:30 A.M. – 12 P.M., SGW FB-620

THE ROLE OF ALTERNATIVE ASSESSMENTS

This presentation will help faculty explore the potential value of using alternative assessment activities in their courses. The format is a panel presentation to showcase different practices and methodologies professors are currently using for formal assessment - including Authentic Assessment, Peer Assessment, and Portfolio Assessment.

The presentation is open to all, particularly those teaching in large classes. As a follow-up to this Winterfest Presentation, the CTL will offer consultations/workshops to support any teaching faculty who would like to adopt one of these assessment practices or design and pilot their own alternative assessment in their classroom.

Panel Participants: *Calvin Kalman, Eva Lagou, Luis Rodrigues, Catharine Marsden, Kate Bligh, Nishan Joomun*

[Register on-line for this workshop](#)



CALVIN KALMAN

Calvin Kalman is a full professor of physics and Principal of Science College at Concordia University. He has published 75 articles in elementary particle physics, 61 in science educational research and 12 books. He is series editor of

Science and Engineering Education Sources. His research group focuses on finding a class of techniques that is effective in helping students become more like expert thinkers.



CATHARINE MARSDEN

Catharine Marsden earned her PhD in Mechanical Engineering from McGill University in 2006. She is currently an Associate Professor in the Centre for Engineering in Society and the NSERC Chair in Aerospace Design Engineering within the

Faculty of Engineering and Computer Science at Concordia University. The NSERC Chair in Aerospace Design Engineering (NCADE) at Concordia University is a unique academic/ industrial collaborative program focused on developing the practical and theoretical skills graduating engineers will need to be successful in pursuing design engineering careers in Canada's aerospace industry.



EVA LAGOU

Eva Lagou is a lecturer in the JMSB Accountancy Department and Director of the Graduate Diploma in Chartered Professional Accountancy (CPA) Program. She has over 20 years of management consulting and industry experience in

leading and managing large-scale business transformation projects involving strategy, business process improvement, ERP implementations and change management. She enjoys teaching students to effectively work in group projects and analyze strategic accounting business cases in a context which challenges them. She is very interested in the Teach for Tomorrow strategic direction.



KATE BLIGH

Kate teaches at Concordia University in the Departments of Theatre, the School of Irish Studies, and Creative Writing Department in English, offering a variety of subjects, from acting to playwrighting to Laban (movement) to

Shakespeare. Before moving to Canada she taught at Rada and Mountview in London, and at Birmingham University, in England, and Queen Margaret's College in Edinburgh, Scotland. An immigrant to Quebec (twelve years ago) from England, Kate has an M.A. degree in theatre directing from the Drama Centre in London and the University of Birmingham. She has been working, studying and creating in professional theatre for twenty-one years.



LUIS RODRIGUES

Luis Rodrigues is a professor at the Department of Electrical and Computer Engineering of Concordia University and a member of the Concordia Institute of Aerospace Design & Innovation. Dr. Rodrigues obtained his Ph.D.

in Aeronautics and Astronautics from Stanford University in 2002. He earned his "licenciatura" and his M. Sc. degrees in Electrical and Computer Engineering from IST, Technical University of Lisbon. Dr. Rodrigues worked as a consultant in speech modelling and recognition for Eliza Corporation in USA and as a flight simulation project manager for Ydreams in Portugal before joining Concordia University in 2003. His research interests lie in the areas of optimal, switched, and hybrid control with applications to aerospace, automotive, manufacturing, biological, and artistic systems.



NISHAN JOOMUN

VP IT and Development
KnowledgeOne Inc.

Nishan Joomun currently serves as a vice president of IT and development at KnowledgeOne. He is in charge of all the IT development

strategies and shaping the company's roadmap for new solutions, platforms, and tools that will help and support the business growth. Nishan graduated from Cambridge University, and his strength lies both in programming and UX/UI with a special focus in rich Internet applications (RIA) and new media. His works have been honored at the Canadian Digi Awards and the Canadian Network for Innovation in Education.

MONDAY, FEBRUARY 5, 2018

9:30 P.M. – 11 A.M., SGW FB-620

IMPROVING WRITING: THREE MODELS OF PEER-ASSESSMENT IN INTRODUCTORY AND UPPER LEVEL UNDERGRADUATE COURSES

The road to becoming a better writer is long. Students often stall or stumble on that journey. Using a peer-assessment process in class can help them move toward the goal of becoming effective writers. Peer-assessment can help students become more self-aware of their strengths and weaknesses as writers, and revising assignments can help students change the way they express themselves in language. This workshop will

review three models of peer-assessment that can be employed in any undergraduate class that has a writing/essay component. We will explore an easily employed peer-to-peer assessment model, a peer-to-peer-to-professor model, and a finally look at a scholarly report assessment model that echoes the processes used by academic journals. Lots of practical samples of rubrics, assignments, and outcomes will be shared.

[Register on-line for this workshop](#)



DAVID CREELMAN

David Creelman is a 3M Fellow 2015 and professor of English in the Department of Humanities and Languages at the University of New Brunswick in Saint John. He is currently the chair of the Department of Humanities and Languages.

FRIDAY, FEBRUARY 9, 2018

WINTERFEST 6: THE ROLE OF ACTIVE LEARNING STRATEGIES PART I

Teaching a large class can be a daunting experience for even the most seasoned instructor. Large lecture-based classes are often associated with student disengagement, surface learning, and high failure rate to name just a few. Some of these instructional challenges may seem inherent and insurmountable, but this does not have to be the case. The February 9th and 16th Winterfest workshop series led by six active learning champions will demonstrate how research-based active learning strategies can help deal with typical challenges of lecture-based teaching. From strategies to engage students

in course readings before class to techniques used in class to promote cognitive engagement and conceptual learning, such as Peer Instruction, experiential learning activities, use of scaffolding tools and polling technology, etc., these interactive, participatory sessions will get every participant involved in visioning a shift from the traditional lecture format to a more learner-centred approach that addresses diverse learning styles and promote deep approaches to learning. Come join us! You will walk away with applicable ideas to implement in your own classes, small or large.

- 9 – 9:45 a.m. Design your class to enhance your students' overall experience
- 10 – 10:45 a.m. Engaged learners = deep learners
- 11 – 11:45 a.m. Promoting discussion and conceptual learning in larger classes: Peer Instruction

SGW FB 620
9 a.m. – 12 p.m.

Michèle Paulin, Philippe Colas, Steven Henle, Robert Cassidy
Spaces available: 35

[Register on-line for this workshop](#)

9 – 9:45 A.M., SGW FB-620

DESIGN YOUR CLASS TO ENHANCE YOUR STUDENTS' OVERALL EXPERIENCE

Everyone is talking about flipping the classroom and using the technology to enhance class interaction. However, do we really understand what it means? We propose to walk you through our own experience and share why and what we did to insert experience and co-design into two courses. We provide a circle vision of what is education, teaching and learning with a final outcome: the student's benefit as a future citizen. First, there are some ground rules to keep in mind: a) develop an empathy mindset, b) approach the course with an integrative thinking, c) believe in youth and next



MICHÈLE PAULIN

Dr. Michèle Paulin, LLB, MBA, PhD, Professorship, Strategic Relationship Marketing won the JMSB teaching award in 2013. She has published many articles and conferences related to innovation, business and non-business relationships, citizenship and prosocial

behavior and the need to balance short-term business profits with societal developments. She also presented in many academic contexts and has many years of international experience in customer executive classes where she brings the philosophy of design and out-of-the box thinking in the era of social media and machine-to-machine interactions. She profoundly believes in redesigning education which will foster fundamental transformation of our theoretical, philosophical and research grounds to face this century challenges.

generation with great optimism, d) allow experimentation and failure from the teacher and student perspectives, and e) work with a collaborative mindset. Second, create a conversation methodology where we mix analytical reasoning and exploratory process involving experimenting, creating, and prototyping. Thus, you are invited to a co-design experience. The purpose will be coming out of the conversation with potential concrete application of co-designing your own class context, personality and teaching style.



PHILIPPE COLAS

Philippe Colas, B.Sc (Chemistry), M.Eng. (Chemical), MBA. He has been teaching service marketing, marketing strategy, international marketing and intercultural communication at Concordia University for over 25 years. He co-founded the John Molson Sustainable Business

Group. His other areas of expertise are management in a context of corporate social responsibility, sports management and cultural management. He worked for more than thirteen years in the banking industry as an account manager for companies of all sizes, operating in various industrial sectors. He has acquired significant expertise in Canadian and international corporate finance as well as in the implementation of technological management solutions. He also worked for four years as Vice President Finance and Administration for an international distribution company.

10 – 10:45 A.M., SGW FB-620

ENGAGED LEARNERS = DEEP LEARNERS

Experiential learning provides a tool to help engage learners and promote deep learning. To promote learning professors need to facilitate an environment that encourages willingness “to try”, “a safe place to fail” and the opportunity to “try again”. Then input from a more skilled helper can scaffold learning. This interactive workshop uses the Yo-Yo as a metaphor for risk-taking, peer collaboration and a brainstorming tool to identify the tenets of how we learn and how we can facilitate the opportunity to engage students, with the goal of reducing surface learning while promoting deep learning. You will also learn how to use Bloom’s Revised Taxonomy as a conceptual framework to promote experiential education.



STEVEN HENLE

Steven Henle has used experiential education as a framework in many courses over the previous 13 years. By providing an authentic learning opportunity students are hands-on and minds-on resulting in a quality program to community partners. When students

are placed into a professional role they become engaged in deep-learning. Steven has been on faculty in Applied Human Sciences for fourteen years. In addition, he provides teacher training workshops for CEGEP and university professors on group work, student motivation, facilitation, and course design. In 2017 Dr. Henle completed his facilitation skills in the Kaospilot Master’s Class in facilitation and course design Aerospace Design Engineering (NCADE) at Concordia University is a unique academic/industrial collaborative program focused on developing the practical and theoretical skills graduating engineers will need to be successful in pursuing design engineering careers in Canada’s aerospace industry.

11 – 11:45 A.M., SGW FB-620

PROMOTING DISCUSSION AND CONCEPTUAL LEARNING IN LARGE CLASSES: PEER INSTRUCTION

Critical discussions --- a signature pedagogy of small graduate seminars --- are an effective way of challenging and deepening a student’s understanding of course material. But they are exceptionally difficult to implement in large undergraduate classes. We’ll discuss a technique of introducing highly structured, peer-to-peer discussions of course material that have been empirically demonstrated to promote deep learning. Developed at Harvard University in an effort to prevent students from getting A’s by only memorizing course material, Peer Instruction promotes critical discussions among students, supervised by the professor. It has proven effective in virtually every context it has been used and studied, regardless of academic level, discipline, type of institution. We’ll discuss the key principles of designing effective Peer Instruction for your courses, and will we introduce a technology that makes it manageable in large classes.



ROBERT CASSIDY

Rob Cassidy is the Director of the Centre for Teaching Learning and affiliate Assistant Professor of Education. He has taught extensively at the cégep, undergraduate and graduate levels in cognitive and educational psychology, research methods and

statistics. He has a PhD in Neuroscience from Georgetown University and completed post-doctoral fellowships at the Medical Nobel Institute in Stockholm Sweden and at the Brain Research Centre at UBC. His scholarly interests centre on the relation between informal theories of learning and professional practices and on the relation between research and practice in driving instructional change.

FRIDAY, FEBRUARY 16, 2018

WINTERFEST 6: THE ROLE OF ACTIVE LEARNING STRATEGIES PART II

9 – 9:45 a.m. Promoting discussion and conceptual learning in large classes

10 – 10:45 a.m. Implementing simple active learning strategies in small and large courses

11 – 11:45 a.m. Improving student engagement in large classes: Peer Instruction and Just-in-Time Teaching

SGW FB 620

9 a.m. – 12 p.m.

Michelle Johnstone, Laurence Chen, Kenneth Ragan

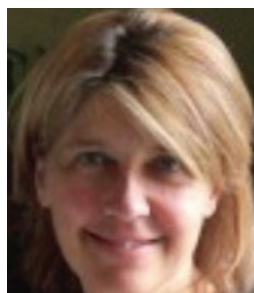
Spaces available: 35

[Register on-line for this workshop](#)

9 – 9:45 A.M., SGW FB-620

COURSE READINGS: A CARROT AND STICK APPROACH TO STUDENT ENGAGEMENT

Many post-secondary courses integrate textbooks and readings as scaffolds for classroom learning. More than a few students ignore these readings and wait passively for us to deliver nuggets of wisdom unto them ... What instructional strategies compel students to actively engage in class readings? Join us for a hands-on workshop where we will explore best practices for engaging students in essential readings outside of class, and discover how these practices can enhance student involvement in deeper thinking and deeper learning during class time.



MICHELLE JOHNSTONE

Michelle Johnstone (M.A. Ed Tech) has been working with pre-service and in-service teachers and educators at the secondary and university level since 2005. She is currently working with undergraduate student-teachers in the Department of Education at Concordia.

10 – 10:45 A.M., SGW FB-620

IMPLEMENTING SIMPLE ACTIVE LEARNING STRATEGIES IN SMALL AND LARGE COURSES

In this presentation, Dr. Chen will share his experience with implementing various active learning strategies in different types of courses. The courses include (1) a first-year or final-year compulsory course taken by all engineering students on an introduction to the engineering profession or on engineering professional practice (enrolment of 350-450 students in two sections), (2) a core course on signals and systems taken by students in electrical, computer, and software engineering (enrolment of 50-150 students), and (3) a graduate course in optics (enrolment of about 25 students). Various class activities and exercises were designed to promote active learning and foster student engagement. In some cases, a flipped classroom approach was adopted; however, the activities and exercises can be used even in 'traditional' lecture courses. Dr. Chen will also share some of his experience with overcoming resistance barriers (e.g., from the students) as well as review comments from the students on their learning experience.



LAURENCE CHEN

Since 2013 and after more than 12 years of conventional 'stand-and-deliver' lecturing, Prof. Chen has committed to changing his approach to teaching. He has been investigating and implementing new approaches and activities aimed at increasing student

engagement and improving overall student learning experience in technical as well as non-technical engineering courses. He is also examining methods to assess quantitatively the impact of these changes on student learning. Finally, he is working on establishing a community of practice in the Faculty of Engineering for all those interested in exploring and using new pedagogies in their teaching

11 – 11:45 A.M., SGW FB-620

IMPROVING STUDENT ENGAGEMENT IN LARGE CLASSES: PEER INSTRUCTION AND JUST-IN-TIME TEACHING

Active learning strategies have the potential to improve student engagement in class, but this becomes more challenging as class size increases. This workshop will explore some strategies that might be useful to improve engagement in large-enrolment lecture-based courses, such as the use of clickers, peer instruction, and just-in-time teaching.



KENNETH RAGAN

Prof. Kenneth Ragan is the William C. Macdonald Chair in the Physics Department at McGill University. He's active in science education research, and has won numerous awards for his teaching - primarily in undergraduate freshman physics courses. He is a past president

of the Canadian Association of Physicists, and his current research focus is at the intersection of experimental particle physics and observational astrophysics.

EVENT SCHEDULE : All events are held in FB-620

DATE/TIME	THEME	FACILITATOR
FRIDAY, JANUARY 26		
Coffee - Breakfast Snacks		
9:45 – 10 A.M.	Welcoming Address	Rob Cassidy
10 – 11:30 A.M.	Re-envisioning Your Assessments: Go Active	John Bentley Carol Hawthorne
FRIDAY, FEBRUARY 2		
Coffee - Breakfast Snacks		
9:30 A.M. – 12 P.M.	The Role of Alternative Assessments	Calvin Kalman Eva Lagou Catharine Marsden Luis Rodrigues Kate Bligh Nishan Joomun
MONDAY, FEBRUARY 5		
9:30 – 11 A.M.	Improving Writing: Three models of peer-assessment in introductory and upper level undergraduate courses	David Creelman <i>University of New Brunswick</i>
FRIDAY, FEBRUARY 9		
Coffee - Breakfast Snacks		
9 A.M. – 12 P.M.	The Role of Active Learning Strategies: Part I	
9 – 9:45 A.M.	Design Your Class to Enhance Your Students' Overall Experience	Michèle Paulin Philippe Colas
10 – 10:45 A.M.	Engaged Learners = Deep Learners	Steven Henle
11 – 11:45 A.M.	Promoting discussion and conceptual learning in large classes: Peer instruction	Rob Cassidy
FRIDAY, FEBRUARY 16		
Coffee - Breakfast Snacks		
9 A.M. – 12 P.M.	The Role of Active Learning Strategies: Part II	
9 – 9:45 A.M.	Course Readings: A carrot and stick approach to student engagement	Michelle Johnstone
10 – 10:45 A.M.	Implementing Simple Active Learning Strategies in Small and Large Courses	Lawrence Chen
11 – 11:45 A.M.	Improving Student Engagement in Large Classes: Peer Instruction and Just-in-time teaching	Ken Ragan