

The Ontario Colleges Mathematics Association



A Potpourri of Mathematics

CONFERENCE PROGRAM

Fern Resort Orillia, Ontario May 21 to 23, 2014

Wednesday, May 21

TIME	ACTIVITY	
12:00 – 1:00	Registration and Hospitality Sponsored by McGraw Hill Education	
1:15	Welcome	Bergwens
1:30 - 2:30	Keynote Discussion: Technology has become "mainstream" and expected in Ontario's college classrooms. We have Apple TV and I-things and laptops and clickers. And this has made changes possible in how classes are offered – hybrid (where computer-based lessons are given in place of some face to face class time) and on-line (where computer-based lessons are given in place of any face to face class time). Some colleges have got on board the "mobile learning" train and are requiring all classes to be using "mobile" technology. This is a long way from the chalk and talk math teaching classrooms. Have these changes helped students learn better? Have these changes helped teachers teach better? Have these changes changed the mathematics we teach? What are the downsides of these changes in class delivery and technology for teaching mathematics in your college? What are the advantages? Join a whole conference discussion! We will start the conference with this discussion, explore various aspects from our collective experience, and end the conference with some conclusions. Facilitated by Brett Clayton, Durham College	Bergwens
	Description: Teaching the curriculum to students in the classroom will not guarantee successful retention of the course material. There are so many ways we, as instructors, accommodate and change our delivery so as to ensure maximum understanding. In addition to this, we also have to look at the atmosphere in the classroom and how our students connect with each other and with us. Creating a bond and a sense of trust is essential to the learning process and this activity does just that! By engaging the students in a non-mathematical way, we allow them to express their fears and aspiration for their education and life in general. This enhances their feelings of camaraderie amongst themselves and an increased level of comfort with the instructor. The results are immensely gratifying and the experience can be quite moving! Presenter: Maria Sairoglou, Seneca College	420
2:45 – 3:45 (Speakers Session 1)	Topic: Spice up your teaching with a Bamboo Description: A USB tablet is an inexpensive accessory that gives another dimension to your instruction, bringing many "smart board" like capabilities to a normal laptop or podium computer. In this session, we will discuss possible uses of the Bamboo USB tablet and some of the common software like PowerPoint, OneNote, Journal, and Paint that integrates well with the tablet for presenting material to the students and make lessons more interactive. If you have a Bamboo already, bring it along with your laptop. If not, tablets will be available to connect to your laptop for you to try. For your laptop, please download the latest Bamboo tablet drivers from http://us.wacom.com/en/support/drivers and install them on your laptop before coming to the conference. Presenter: Don Gibson, Georgian College Topic: Reconstructing the Classroom for the Challenges of Modern Learners Description: While major emphasis is often given to curriculum and academic/programmatic	Huronia
	requirements, the success of students in the classroom is increasingly related to the diverse set of backgrounds that we see as part of our class. I will review some of the academic, social, and behavioural challenges I have observed in my classroom in the past year, and some of the different technique and technology based approaches I've tried to use to address these modern learning challenges. Presenter: Elizabeth Martin, Mohawk College	Simcoe

Wednesday, May 21 Continued...

TIME	ACTIVITY	LOCATION
	Topic: College Student Achievement Project: An Update	
	Description: The College Student Achievement Project (CSAP) is the successor project to the College Mathematics Project, and this workshop will focus on three aspects of activity from the past 12 months. First, the CSAP data project has analysed college student achievement in mathematics (and language) in both first and second semester for students who entered college in Fall 2011. Second, the CSAP Assessment Development Project is developing a common mathematics assessment for post admission students which will be ready for testing in colleges this September. The assessment is also designed to be used as a self-diagnostic test by students who are considering applying to college. In this mode, it will be linked to remedial modules for students to use where the test reveals the need. Third, the CSAP Learning Outcomes Development Project is developing a common set of learning outcomes for introductory mathematics courses in pre-business, pre-technology and business diploma program areas. When these are completed they will be sent for validation to all colleges.	420
	Presenter: Emily Brown, Patricia Byers, Graham Orpwood, Laurel Schollen, CSAP	
4:00 – 5:00 (Speakers Session 2)	Description: This workshop is an investigation into how technology has changed the way students cheat. Teachers are invited to share stories and strategies. Hopefully this workshop will result in a compilation of what the latest, more popular methods of cheating are, how to spot them, how to subvert them etc.	Huronia
	Presenter: Tracy Worswick, Conestoga College	
	Topic: Solved by Mathematics	
	Description: Math is a powerful and indispensable tool that can be used to solve interesting and important real-world problems. In this presentation I will be discussing several problems that are motivated by an application, historical challenge, or curiosity. Physical demonstrations will be incorporated to help visualize the problems as well as to validate the mathematical predictions.	Simcoe
	Presenter: Serge D'Alessio, University of Waterloo	
5:00 - 6:00	Hospitality Suite Sponsored by McGraw Hill Education	Fireside 108
6:00 - 8:00	Dinner	Dining Room
8:00 – 9:00	Poster Session Check out the posters providing brief presentations on teaching suggestions, questions worth exploring, solutions to teaching issues, paths to student success. Anyone at the conference can participate (this is the former "Birds of a Feather"). Prizes!!	Mary Lou's Lobby
	Pub(lisher) Night	
8:00 –???	Please join us in the opportunity to network with our co-workers from throughout the province of Ontario. This is a chance to talk and mingle with people of other colleges, publishers, and vendors. There will be games and a beverage bar. Sponsored by Pearson Education	Mary Lou's
9:15 –???	Karoake Join us for some rousing, exciting singing and help judge the winners! Prizes!!	Bergwens
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Thursday, May 22

TIME	ACTIVITY	LOCATION
7:00 – 7:30	Walk/Run Activity Participants are welcome to start the day with a walk/run session. Please meet at the Gazebo located at the front of the main Lobby.	Gazebo
7:45 – 8:50	Breakfast	Dining Room
	Topic: Improve your mathematics and improve your credentials through Waterloo's online MMT Description: The University of Waterloo offers an online Master of Mathematics for Teachers program, aimed specifically at secondary school and college-level mathematics instructors. This fully online, part-time Master's degree helps its students improve their knowledge of the mathematics behind the topics they teach. Presenter: Ian Vander Burgh, University of Waterloo	Huronia
	Topic: Math Help for Students at Humber College PART 1	
9:00 – 9:50 (Speakers Session 3)	Description: Humber College Math Centre's new mobile technology initiatives have resulted in more students getting math help than ever before. Students now embrace technology, and if we as educators adopt and use current technology, we will connect with students in a way familiar to them. The presentation will review the Humber Math Centre model of tutoring and will explore online and offline initiatives including chat services, social media, and in house events to engage students. Considerable time will also be devoted to interactively demonstrating these apps used in the Math Centre. Attendees are encouraged to bring their laptops and mobile devices in order to participate. A limited number of devices will also be made available. NOTE: This session goes until 10:30. Presenter: Cameron Redsell-Montgomerie, Humber College	Bergwens
	Topic: Statistics Potpourri	
	Description: Discussions in the field of education today are like a strong, heady mix of scent that can cause disorientation and leave one with a nasty headache. In this talk we will explore some of the competing options and arguments that dominate the discussions in statistics education keeping in mind that like a strong scent that permeates a house, these discussions are pervasive in many other academic fields. We will explore competing options in types of media, modes of delivery, software, contentand anything else we can throw in the mix. The goal will be to explore, not to give answersbecause we know that all models are wrong, but some are useful.	Simcoe
	Presenter: Karen Lawrence, Mohawk College	
	The Anatomy of a Developmental Mathematics Course	
	Description: What is the "perfect" developmental mathematics course? And how can you make this a "dynamic" course? Come to our workshop to hear about the developmental mathematics course we teach and discuss what you are doing!	420
	Presenter: Paul Balog and Jeff McManus, George Brown College	
	Publishers Visit the publishers and exhibitors	Mary Lou's

TIME	ACTIVITY	LOCATION
	Topic: Math Help for Students at Humber College CONTINUED	
	Description: See Part 1 above	Bergwens
	Presenter: Cameron Redsell-Montgomerie, Humber College	
	Topic: Using the Casio Graphing Calculator for Statistics	
	Description: The traditional approach to statistical study consists of tedious calculations using a standard business calculator and statistical tables. However, changing a student's focus from mere computation to selection of correct methodology facilitates deeper understanding of result interpretation. An untraditional approach for statistics uses graphing calculators. These embrace technological advances while maintaining affordable access and controlled student testing. They help optimize competency. The Casio graphing calculator session will demonstrate how to: represent and describe data in multiple ways, make calculations more efficiently and precisely, and easily construct confidence intervals and test hypotheses.	420
	Presenter: Gord Brown, Casio	
10:00 - 10:30	Topic: Revolutionizing the Way Students Learn	
(Speakers Session 4)	Description: McGraw-Hill Education presents LearnSmart™ and SmartBook™ – adaptive learning resources designed to maximize productivity and efficiency in learning. See how instructors use LearnSmart to guide students to an understanding of core concepts. LearnSmart helps instructors identify knowledge gaps by providing key content at specific intervals to ensure mastery and long-term knowledge retention. Learn how SmartBook, the first and only adaptive reading experience changes the way students read and learn. See how students reading experience is personalized and continuously adapts based on what the student knows and doesn't know. LearnSmart and SmartBook – helping Math students engage with course content, better prioritize their time, and come to class ready to participate.	Huronia
	Presenter: Kimberley Veevers, Cathie Lefebvre, McGraw-Hill Education	
	Topic: What Wiley has to offer in technology for Math and Statistics for 2014/2015	
	Description: Learn from Siobhan Stynes, Seneca College about the pedagogical advantages of incorporating Wiley's rich collection of interactive learning content right into her Blackboard Learn course. Come see how to seamlessly add digital content for math and statistics from WileyPLUS—a research-based, online teaching-and-learning-environment— right into your schools Learning Management System. Learn how Wiley's flexible formats including Custom can save your student's money and time.	Simcoe
	Presenter: Siobhan Stynes, Seneca College, and Kristen Vander Kooy, Wiley	
	Publishers Visit the publishers and exhibitors	Mary Lou's

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10:40 – 11:10 (Speakers Session 5)	Description: McGraw-Hill Education presents LearnSmart™ and SmartBook™ – adaptive learning resources designed to maximize productivity and efficiency in learning. See how instructors use LearnSmart to guide students to an understanding of core concepts and identify knowledge gaps by providing key content at specific intervals to ensure mastery and long-term knowledge retention. Learn how SmartBook, the first and only adaptive reading experience, changes the way students read and learn. See how students reading experience is personalized and continuously adapts based on what the student knows and doesn't know.	Huronia
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	Presenter: Siobhan Stynes, Seneca College, and Kristen Vander Kooy, Wiley	
	Topic: 10,000 Hours of Mathematics	
	Description: In Malcolm Gladwell's book <u>Outliers</u> , he describes how people achieve mastery in any task by practicing it for 10,000 hours. Through this discussion, the Vretta team will discuss ways in which technology can be leveraged to motivate students to make math a part of their daily lives in order to attain mastery. This presentation will discuss the methodologies Vretta utilizes in building its industry-leading cloud based resources and hybrid instructional tools. We will examine best practices that are being followed by professors to help students attain adequate levels of mastery in mathematics.	Bergwens
	Presenter: Anand Karat and Lionel Loganathan, Vretta	
	Publishers	Mary Lou's
	Visit the publishers and exhibitors	ivially LOU S

TIME	ACTIVITY	
	Topic: Digital Culture and Education Description: The student population is part of a generation known as the "digital natives". We will discuss some of the characteristics of this generation and methods for engaging them in mathematics education. Presenter: Leanne Newell, Nelson	420
	Topic: Maplesoft – Your Ontario Partner in Math Education	
11:20 – 11:50 (Speakers	Description: Maplesoft has over 25 years of experience helping educators introduce and use technology in the classroom and we're always excited when we can work with institutions in Ontario to make a difference in our home province. Maple 18 has many clickable features to make it easy to use and many built-in resources to enhance and extend in-class learning. This session will introduce you to not only the resources that are available in the product itself, but also to the variety of resources available on the Maplesoft site.	Huronia
Session 6)	Presenter: Louise Krmpotic, Maplesoft	
	Topic: Diagnostic helping with Pearson	
	Description: Pearson has a number of learning resources that support diagnostic helping in mathematics education. In this session, we will feature MyMathTest's new adaptive testing features and Learning Catalytics, Pearson's new bring your own device classroom intelligence system.	Simcoe
	Presenter: Michelle Bish, Pearson Education	
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	Publishers	Manulau's
	Visit the publishers and exhibitors	Mary Lou's

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	Presenter: Michelle Bish, Pearson Education		
	Publishers	N.A. m. I. a. v.'a	
	Visit the publishers and exhibitors	Mary Lou's	
12:30 - 2:00	Lunch	Dining Room	
I	Fun Time Activities		
2:00 – 5:00	See the sign-up sheets for activities, including: Golf / Nature / Walking / Biking Trail/ Badminton/ Tennis Canoes / Kayaks / Paddle-boats / Mini-golf /Bocce / Horseshoes / Shuffleboard	Outdoors	
5:00 - 6:00	Hospitality Suite Sponsored by McGraw Hill Education	Fireside 108	
6:15 – 6:30	Group Photo	Gazebo	
2,20 0.00	Dinner + Awards	55255	
6:30 – 8:30	50/50 Draw for the local food bank Reports from other mathematics organizations Annual general meeting and elections	Dining Room	
	Bingo		
9:00 –???	Join us for an exciting evening of Bingo! Prizes!!	Bergwens	

Friday, May 23

TIME	ACTIVITY	LOCATION
7:00 – 7:30	Walk/Run Activity Participants are welcome to start the day with a walk/run session. Please meet at the Gazebo located at the front of the main Lobby.	Gazebo
7:45 – 8:50	Breakfast	Dining Room
9:00 – 9:50 (Speakers Session 8)	Topic: Mathematics Curriculum Supports: for both F2F and Virtual courses Description: In this interactive session we will explore curriculum supports for instructors of mathematics courses as guided by the Essential Employability Skills, in both the F2F and Virtual worlds of delivery. Mathematics often offers a stumbling block to many students' program entrance, program progression and overall self-confidence. The challenges of math and their possible solutions through infusion of employability applicability in curriculum will be discussed. We will explore strategies on how to implement these employability applications within the F2F and Virtual course curriculum. The workshop will involve presentation and collaborative contribution through guided exercises and brainstorming. BRING YOUR TABLET OR LAPTOP TO PARTICIPATE! Presenter: Marc Antonelli, Durham College, and Cliona Gerachty, Fanshawe College	420
	Topic: Changes in Pre-Health Mathematics Description: A recent initiative has proposed changes to Pre-Health courses (including mathematics) with the goal that all colleges adopt a common pre-health curriculum and thus provide transfer credits among colleges for pre-health students. Eighteen colleges have signed up in agreement with this so far. In this workshop, we will evaluate these changes and share pre-health math activities that work. Bring your success stories and questions. Presenter: John Kezys, Mohawk College, and Don Vander Klok, Lambton College	Simcoe
	Topic: Using Maple TA in Calculus Description: Over the past year, Cambrian College has been running a pilot program to use Maple 17 to facilitate the teaching of calculus in engineering technology programs. Maple 17 has been used as a productivity tool to assist students in dealing with the "drudgery" of mathematics and spend more time on conceptualizing how calculus can be used to solve concrete engineering problems. I will share our success with you. Presenter: David Starbuck, Cambrian College	Huronia

Friday, May 23 Continued...

TIME	ACTIVITY	LOCATION
	Topic: Identifying Math Students at Risk - The Numbers Paint a Picture Description: How do we REALLY identify students at risk in mathematics courses? Diagnostic/assessment testing? Test grades? Study habits? In the Fanshawe College Pre- Health Science program, we've tried to make graphical representations of many at-risk indicators. The pictures are complex, probably inconclusive, yet thought provoking and a possible first step to effective intervention strategies.	420
10:00 – 10:50 (Speakers Session 9)	Topic: Bizarre Mathematics VI - The Mathematics of the Universe Description: "How far is that galaxy?", and other deceptively simple questions. The universe operates by mathematical laws. We take this for granted, but should we? Is there an underlying reason why the universe lends itself to mathematical description? Could there be a universe whose physical laws cannot be described by mathematics? These and other questions pertaining to the relationship between our universe and mathematics will be explored. Presenter: Stephen Scrutton, Mohawk College	Huronia
	Topic: Socrative the application that turns your Wi-Fi enabled device into a smart clicker Description: Technology has invaded the classrooms and Student Response Systems (SRS) are the new buzz. Traditionally we incorporate this technology by means of clickers, to probe and engage our students. Join me and learn how Socrative brings the smart clickers technology to smartphones, laptops, tablets, or any device that can connect to a Wi-Fi to increase the participation of your students through a series of educational exercises and games. Bring along any of your devices that can connect to a Wi-Fi to experience this interactive response system that can potentially be used in your classroom environment. Presenter: Lauren Fuentes, Durham College	Simcoe
11:10 – 11:50	Topic: Teaching Mathematics in Ontario Colleges in a Technology Environment Keynote Discussion Part 2: Summing up the topic we started with and coming up with conclusions Facilitated by Brett Clayton, Durham College	Bergwens
12:00 – 1:15	Lunch/Prizes/Check-out	Dining Room

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