

**The Eleventh Annual North/South Dialogue and  
Alberta College Mathematics Conference  
Mount Royal University, Calgary, Alberta,  
May 5, 2011**

<b>Time</b>	<b>Speaker(s)</b>	<b>Title</b>	<b>Abstract/Description</b>
8:30 am – 9:00 am	REGISTRATION AND EARLY MORNING COFFEE BREAK – BEVERAGES AND SOME BAKERY ITEMS PROVIDED		
9:00 am – 9:05 am  EA 1031	Bryan Lane, Dean, Faculty of Science and Technology,  Mount Royal University	Greetings from the College and Organizers	
<b><u>Session facilitator: Mariya Svishchuk</u></b>			
9:05 am – 9:30 am  EA 1031	Dr. Rossitza S. Marinova,  Concordia University College of Alberta	Math Kangaroo Outreach Activities in Alberta	Math Kangaroo is an international project that involves over five million students in grades 2-12 and hundreds of mathematicians from 46 countries. The Canadian Math Kangaroo contest is currently available in a number of cities in Canada—Calgary, Edmonton, Langley, Montreal, Ottawa, St. John's, Sudbury, the Greater Toronto Area, and Winnipeg. In Calgary and Edmonton, the contest expanded from 150 students in 2008, to 183 students in 2009, and to 250 students in 2010. The math clubs are rising in popularity in both Calgary and Edmonton, with over 160 participants enrolling in 2010-2011 compared to 70-80 in 2009-2010. Math Kangaroo-related clubs, classes, and preparation sessions inspire and promote interest and excellence in

			math among students. These activities also engage university students, who gain a valuable experience by volunteering in the preparation and delivery of the training, as well as in the supervision and marking on the contest day.
9:30 am – 10:00 am EA 1031	Tiina Hohn,  Grant Mac Ewan University	Instant Insanity, 'Donut' Talks at MacEwan	In the past two years we have enjoyed a series of undergraduate talks at Grant MacEwan University. These talks are presented by the math/stats faculty members and the idea is to bring our own interest and research areas in mathematics to our first and second year students. Invitation is open University wide and attracts students and faculty from other departments as well, especially when applied research is presented. At the same time we introduce our favourite mathematician. Name 'donut talk' comes from the torus shaped goodies from Timmies. I will present my 'donut' talk: Classic puzzle instant insanity and its analytical solution by using graph theory. Hands on!
10:00 am –11:00 am EA 1031	Jim Stallard ,  University of Calgary	Using Techno Tools in the Classroom	
11:00am–12:00 noon Faculty Center	<b>Lunch</b>		
<b><u>Session facilitator: Ganesh Bhandari</u></b>			
12:00noon–12:30pm EA 1031	Christine Henzel Team Leader, Mathematics and Sciences Curriculum Sector, Alberta Education  Diane Stobbe, Curriculum	The Revised High School Mathematics Program of Studies	Join Alberta Education to learn about the changes to the Grades 10-12 Mathematics Program of Studies which began implementation in September 2010. An overview of the new course sequences and key changes to the program will be highlighted.

	Manager, Mathematics with French Language Education Services, Alberta Education		
12:35 am – 1:05 pm EA 1031	Gord Hamilton,  Math Pickle	Hitting K-12 Students with Unsolved Problems	One unsolved problem is being chosen for each grade K-12. MathPickle and PIMS are seeking sponsors to put up a \$1,000,000 prize for each of the thirteen problems - the prize to be split between the mathematician who solves the problem and their most inspirational K-12 teacher
1:10 pm – 1: 40 pm EA 1031	Manny Esterbrooks  Red Deer College	Guidebook to Calculus for the 21st Century	This topic comes about because of general lack of consensus as to what constitutes an introductory level calculus course At many institutions, grad students teach the beginner level Calculus course, and the tests vary greatly as to the concepts tested and level of difficulty of the exams. We have this situation at our College where some instructors do not allow calculators while others do, some allow formula sheets while others do, some instructors formulas exam questions that are very challenging while others are effectively a copy of the Math 31. This is an attempt to outline some of the parameters for a general calculus course in light of the internet and the prevalence of calculators, what is the place of the latter? Etc.
1:45 pm – 2:15 pm EA 1031	Thompson  Book Representative		The sponsor of the coffee break would like to update us on their latest products!_
2:15 pm – 2:25 pm.,	<b>Coffee Break</b>		
<b>Session facilitator: Eric Roettger</b>			
2:25 pm – 2:55 pm EA 1031	Laura McJannet  McGraw hill Book	ALEKS Presentation	The sponsor of the coffee break would like to update us on their latest products!_

	Representative		ALEKS is a unique Web-based program that uses artificial intelligence and adaptive questioning to assess precisely a student's knowledge in accounting, and provide personalized instruction on the exact topics the student is most ready to learn. As a result, ALEKS interacts with students much like a skilled human tutor to target gaps in skills and dramatically improve performance and retention, while also saving instructor time.
3:00 pm – 4: 00 pm, EA 1031	<b>KEYNOTE</b> Professor Richard Guy	You can be as good as the Babylonians at Arithmetic	... but I can't get you up to speed in fifty minutes, because they had several advantages that we don't have today. We will try to guess how they were able to calculate the square root of two to the accuracy that they were able to achieve, and compare this method with one that we might use today. This will give me an excuse to ride a hobby-horse of mine --- 'negative' continued fractions --- which I claim to have several advantages over the 'regular' ones.
4:05 pm – 5: 00 pm, EA 1024	<b>Panel Discussion</b>  <b>Facilitators: Mariya &amp; Shawn</b>		
05:00- 07:00 pm Lincoln Park Room	SUPPER		