

BCcupms  
THE BRITISH COLUMBIA COMMITTEE ON THE  
UNDERGRADUATE PROGRAM IN MATHEMATICS AND STATISTICS

92<sup>nd</sup> Articulation Meeting  
Kwantlen Polytechnic University — Richmond Conference Centre  
AGENDA Version: May 6, 2014

<b>Date:</b>	Monday, May 12, 2014—Pre-meeting event
<b>Activity:</b>	High School Math Contest Organization Session
<b>Time:</b>	9:00 am–4:00 pm
<b>Room:</b>	2725

<b>Date:</b>	Tuesday, May 13, 2014
<b>Activity:</b>	BCcupms Meeting—First Day
<b>Time:</b>	9:00 (coffee and muffins at 8:30 in 3625)
<b>Room:</b>	Conference Centre, Second Floor
<b>Lunch:</b>	Lunch can be bought at various locations
<b>Publishers:</b>	3625

**Plenary Session (Conference Centre)**

1. Welcome by Betty Worobec, dean of Science and Horticulture, Kwantlen Polytechnic University — Richmond Conference Centre
2. Adoption of the agenda.
3. Approval of the minutes of the 91<sup>st</sup> meeting, which was held at College of New Caledonia.
4. Announcements:
  - 4.1 Introduction of representatives.
  - 4.2 Attendance lists.
  - 4.3 Announcements from the host.

4.4 Notice of election: At this meeting, elections for the Chairs of the BCcupms and Statistics Subcommittee will be held. These have two-year terms. Formation of a Nominating Committee.

4.5 Conferences.

### Parallel Sessions

5. Mathematics Session—Chair: Jim Bailey—Conference Centre

5.1 Report from the Calculus Readiness Test Subcommittee. Justin Gray, David Feldman.

5.2 Calculus Challenge Exam. Wayne Nagata.

5. Statistics Session—Chair: Bruce Dunham—2725

5.1 Approval of agenda.

5.2 Approval of the minutes of the Statistics Subcommittee Session of the 91<sup>st</sup> meeting.

5.3 Matters arising from the minutes.

5.4 Institutional reports.

5.5 Election of Statistics chair.

5.6 Flexible pre-major in statistics.

5.7 Canadian Engineering Accreditation Board accreditation criteria (Bruce Dunham).

5.8 Any other business.

5.9 Motion to adjourn.

### Plenary Session

6. Highlights from the parallel sessions (details will appear in the minutes.)

7. Report from the Ministry of Education: Melissa Horner.

- [http://www.bced.gov.bc.ca/irp/transforming\\_curriculum.php](http://www.bced.gov.bc.ca/irp/transforming_curriculum.php)
- Curriculum transformations of the senior secondary grades; transitions of students to post secondary education.
- The status of provincial required examinations.
- New curriculum directions, see <https://curriculum.gov.bc.ca/>.

- Curriculum transformations of the elementary grades which may affect the teaching of Mathematics for Elementary Education.
8. Business arising from the minutes of the 91<sup>st</sup> meeting:
    - 8.1 Letters sent to BC colleges and universities about course cancellations. Jim Bailey.
    - 8.2 Core Business Calculus Agreement: UBC MATH 105. Wayne Nagata. (Wayne will also give his institutional report at this time.)
    - 8.3 Open source textbooks. Jim Bailey.
    - 8.4 Mathematics for Elementary Education review. Nora Franzova.
    - 8.5 Collaborative Offering of Under-enrolled Mathematics and Science Courses (Selkirk, NIC, and CotR). Jim Bailey.
    - 8.6 Webmaster Report. Ian Affleck.
    - 8.7 Possible Core Calculus Agreement for Life Sciences Calculus Stream. Michael Nyenhuis.

**Date:** Tuesday, May 13, 2014  
**Activity:** BCcupms and Secondary School Teachers  
**Time:** 4:30 p.m.  
**Room:** Conference Centre

**BCcupms and Secondary Teachers Session (Conference Centre)**

9. Introduction and opening remarks.
10. Reports:
  - 10.1 BC Secondary Schools Mathematics Contest—Clint Lee.
  - 10.2 BCAMT—Ron Coleborn.
  - 10.3 How is the implementation of the new WNCP curriculum going in the highschools?
11. General discussion: further topics to be suggested by the teachers.

<b>Date:</b>	Wednesday, May 14, 2014
<b>Activity:</b>	BCcupms Meeting—Second Day
<b>Time:</b>	9:00 (coffee and muffins at 8:30 in 3625)
<b>Room:</b>	Conference Centre, Second Floor
<b>Lunch:</b>	hosted by Kwantlen Polytechnic University
<b>Publishers:</b>	3625

### Plenary Session (Conference Centre)

12. Opening remarks.
  - 12.1 Introduction of representatives.
  - 12.2 Attendance lists.
  - 12.3 Announcements from the host.
13. Reports:
  - 13.1 BCCAT—Mike Winsemann.
    - a demonstration of the online Articulation Information Centre.
    - 2014 and 2015 JAMs.
    - Pending Requests in the Transfer Credit Evaluation System (TCES).
    - Removal of the distinction between sending and receiving institutions.
    - Block Transfer, Advanced Placement, and International Baccalaureate Transfer Guides.
    - The BCCAT Review of Associate Degrees.
  - 13.2 PIMS—David Leeming.
  - 13.3 ABE—TBA.
  - 13.4 Math Challengers—Leo Neufeld.
  - 13.5 Changing the Culture—Susan Milner.
14. Keynote Speaker. Bevan Ferreira. Motivating Calculus: Credit Derivatives and Counterparty Credit Risk (the Mathematics that Sunk the World in 2008).
15. Publishers' Representatives: the latest developments related to Mathematics textbooks.
16. Report from the Nominating Committee; elections for the Chairs of the BCcupms and Statistics Subcommittee if necessary.

17. New business:
- 17.1 MOOCs (Justin Gray)
  - 17.2 Completion Rates for first year Calculus, Statistics: please bring data. Kevin Craib.
  - 17.3 Online/web based assignments, Stewart, Webassign. Wayne Broughron.
  - 17.4 Mathnasium (private centres that teach math)—franchise opportunities—is this coming to Canada? Kevin Craib.
  - 17.5 Tracking online high school students. Justin Gray.
  - 17.6 Observations on the new grade 12 cohort. Glen Pugh.
  - 17.7 Blended/mixed outcomes. Kevin Craib.
    - blended courses: lectures are face-to-face, some material is online.
    - hybrid courses: some lectures are face-to-face, some are online.
  - 17.8 Calculus I and II Equivalencies: is it time to formalize this agreement? <http://bctransferguide.ca/program/math/calculus/>. Jim Bailey.
  - 17.9 ACAT—BCCAT initiative: meeting of chairs and vice chairs of AB–BC Mathematics and Statistics Articulation Committees April 30. Jim Bailey.
18. Insitutional reports: please focus on course changes (recent and upcoming) that might influence transfer agreements and enrolment trends.
19. Committee business:
- 19.1 Theme for our 93<sup>rd</sup> meeting.
  - 19.2 Date and location of the 93<sup>rd</sup> meeting: May 12–14, 2015 at Vancouver Island University (Nanaimo).
  - 19.3 Proposed dates for future BCcupms meetings:

Year	Dates	Host
2014	May 13–15	Kwantlen Polytechnic University
2015	May 12–14	Vancouver Island University
2016	May 17–19	Columbia College
2017	May 16–18	
2018	May 15–17	
2019	May 14–16	
2020	May 12–14	

19.4 List updates: telephone, email, and fax.

20. Adjournment. Greek dinner.

Notes:

1. Please bring your own copy of this agenda and pre-approval minutes of the 91<sup>st</sup> meeting.
2. Displays of textbooks and other resources from the major publishing houses will be in room 3625.

### Professional Development Activities

<b>Date:</b>	Thursday, May 15, 2014
<b>Activity:</b>	Sharing Mathematics Conference
<b>Time:</b>	9:00–4:00
<b>Room:</b>	2150

The theme for Sharing Mathematics this year is

*Attention-Grabbing (and mathematically fruitful) Activities in the Post-Secondary Classroom.*

Everyone is encouraged to attend and talk about their experiences!

See Table 1 for a list of speakers and topics.

<http://jasleobailey.wix.com/sharingmathematics14>

<https://www.pims.math.ca/educational-event/140515-sm>

08:45–09:00	Welcome, Announcements
09:00–10:00	Veso Jungic: Making Hexastix with Math Catchers
10:05–10:35	Kristin Garn: Daily Quests: Gamification and Math Practice
10:40–11:00	Break
11:00–12:00	John McLoughlin: Enriching the Student Experience: Informal Assessment, Activities, and other Teaching Ideas
12:00–13:00	Lunch
13:00–13:40	Greg Schlitt: Technical Reports in Calculus I & II
13:45–14:25	Judy Larsen: Sharing About Flipping
14:30–14:45	Break
14:45–15:25	Louis-Philippe Saumier Demers: Flipping Vector Calculus
15:30–16:00	Jan Verster: Kwantlens Math Problem of the Week

Table 1: Schedule for Sharing Mathematics, 2014