

BIRS Workshop
Alberta Post-Secondary Curriculum
September 29 - October 1, 2005
Sponsored by the Pacific Institute for the Mathematical Sciences

MEALS

Breakfast (Continental): 0700-0900, 2nd floor lounge, Corbett Hall, Friday - Saturday

Lunch (Buffet): 1130 - 1330, Donald Cameron Hall, Friday-Saturday

Dinner (Buffet): 1730-1930, Donald Cameron Hall, Thursday-Friday

Coffee Breaks: As per daily schedule, 2nd floor lounge, Corbett Hall

Please remember to scan your meal card at the host/hostess station in the dining room for each lunch and dinner.

For other lighter meal options at the Banff Centre, there are two other possibilities: Gooseberry's Deli, located in the Sally Borden Building, and The Kiln Cafe, located beside Donald Cameron Hall. There are also plenty of restaurants and cafes in the town of Banff, a 10-15 minute walk from Corbett Hall.

MEETING ROOMS

All lectures are held in Max Bell 159. Please note that this is on the Lower Level. The rooms on the upper level, and any treats laid out in that area, are for use by other conferences. Hours: 6 a.m. - 12 midnight. LCD projector, overhead projectors and blackboards are provided.

SCHEDULE

Thursday, September 29

1600 Check-in begins at the Front Desk of the Professional Development Centre—open 24 hours.
Lecture rooms are available.

1730-1930 Dinner in Donald Cameron Hall

1930 Informal Gathering in the second floor Lounge, Corbett Hall. This is our chance to refine and improve the agenda and get to know your fellow participants.

Friday, September 30

0700-0900 Continental breakfast, second floor Lounge, Corbett Hall.

0900-1000 Proposal for a New Curriculum in Analysis, Jack Macki.

1015 Coffee break, second floor Lounge, Corbett Hall.

1045-1145 Discussion of Jack's proposal, formation of working groups for this conference.

1145- 1400 Lunch break

1400 MATH 205 - The course *Mathematical Explorations*, Peter Zvengrowski, U of Calgary

1500 Coffee Break

1545 Discussion and presentations on the new curriculum proposal.
Break into working groups if desired.

1730-1930 Dinner

1930 Presentation and discussion on the issue of failure rates - - how to resolve the issue of administrative pressure for higher pass rates versus faculty demands for reasonable standards.

Saturday, October 1

0700-0900 Continental Breakfast, second floor Lounge, Corbett Hall.

0900 Decision on the new curriculum proposal, and decisions on any proposal(s) to deal with failure rates and use of technology. Formation of working group(s).

1015 Coffee, second floor Lounge, Corbett Hall.

1100 Room checkout for all participants.

1200-1300 Lunch

1300 - 1600 Continuation of discussion by those able to remain.
The meeting rooms are available until 1600, although we will probably not use them for that length of time. There is no coffee break on Saturday afternoon, but self-serve coffee and tea are always available in the 2nd floor lounge, Corbett Hall.

GOALS

The goal of this workshop is to consider a general proposal for a significantly modified version of the standard four term program in calculus. In particular to create a lean, interesting and modern introduction to analysis which will appeal to students who are not majoring in engineering or mathematics-related sciences. The principles involved are:

1. To offer a three semester sequence to replace the standard four semester sequence, recommended for students who have had calculus in high school with a decent mark.
2. The four-semester sequence would remain for those who did not meet this criterion. There would be no merging of the two programs, they would be quite different in approach. The four semester sequence would, in particular be designed for students who are not talented (nor particularly interested) in mathematics. It is expected that the enrollment in the fourth semester would be quite small.

The details of the proposed syllabus for each sequence be presented at the conference. It is expected that it will be highly imperfect.

A second goal of the workshop is to discuss a plan for dealing with the very strong pressure from administrations, particularly at some of the colleges, to pass more students. Following the advice of Jim Timourians presentation some time ago, here is an initial proposal:

Form a select visiting committee under the auspices of PIMS to go to institutions where this is an issue and discuss the situation with all sides. This committee could consist of three or at most four individuals representing the universities and the public (e.g., Dr. Ling or Dr. Couch from UC, Dr. Kharagani from UL, Dr. Macki or Dr. Rhemtulla from U of A, Dr. Timourian from outside...). The idea is to use outside people to listen to the actual issues presented by each side privately, then to try to see how to resolve things.

Finally, there are many ancillary issues that you may want to discuss, so the agenda will be refined as we go along. I am thinking in particular of technology (Manny Estabrooks and/or Dave McLaughlin may want to report or present), enrichment (Peter Zvengrowski will be presenting, others may want to discuss or present).

The timeline I have in mind is to present a full detailed syllabus at the May North South meeting, with the first pilot project to begin in September, 2006.

I am in Kimberly, B.C. for the week before the conference, with full email access and working on this conference, so feel free to send in ideas and suggestions. Please use the email address below, as my U of A email spamcatcher is very aggressive and causing me no end of grief.

Jack Macki
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