Message from the chair….

As the new Chair of EASC, I would like to welcome alumni, students, faculty and staff to enjoy the Geocetera Newsletter outlining the recent activities in the department. Having weathered two semesters as Chair, I begin to fully appreciate the time and effort that goes into the department’s governance. EASC has benefitted greatly under the stewardship of Dr. Derek Thorkelson over the last 5 years, and believe the department owes him a debt of thanks for his tireless efforts. Derek has left the department in a strong position, well respected in the Faculty of Science. Additionally, our faculty have developed well-funded, dynamic research programs, which has raised our profile nationally and internationally. Our staff continues to provide excellent technical and clerical support to students and the faculty. EASC is a balanced, collegial body, and I think that we can be very proud of our academic unit.

At present, our department trains 76 EASC majors, but I know that there are a significant number of you out there that have yet to declare your major! In the graduate program, we mentor 52 research students, 29 in the MSc program and 23 in the PhD program. Through the efforts of Dr. Thorkelson and the Undergraduate Curriculum Committee, the Joint Major program with Chemistry has been realized and approved by Senate. Coupled with the Water Science Program (in conjunction with Faculty of Environment), these advancements signal the department’s move towards greater integration with other academic units.

As many of you know, the department underwent a seven-year external review in March 2011 that examined undergraduate and graduate instruction, research, space utility and availability, and governance. The external review team was very impressed with our department and student body, and suggested a number of things that they felt would make us even better. The resulting document and recommendations, as well as the department response to these recommendations have been shepherded through the university system and approved by Senate.

One immediate positive outcome of the external review was that Dr. Claire Cupples, the Dean of Science, authorized the purchase of 10 new Nikon petrographic microscopes for the department. These have now arrived and are being put into service, giving us 29 usable transmitted light scopes, 17 of which can be used for reflected light. The new scopes will allow us to begin phasing out the aging fleet, but will also lead to less overlap on the demand for their usage. With increasing numbers of lab sections in our second and third year courses, this should help to alleviate some of the inevitable time conflicts between students. The Dean has expressed a desire to begin a scheduled purchase arrangement for new microscopes in the future, so that we can continue to deliver effective petrology courses.
What lies before us, as a department, is the implementation of the Senate-approved recommendations. The most pressing issue at present is the redesign of the undergraduate program. To that end, I struck 4 ad hoc committees in September 2011 to investigate various aspects of the program and to bring their recommendations to the Undergraduate Curriculum Committee. The department will soon be meeting to discuss these recommendations and upon departmental approval, begin implementing changes to our undergraduate program. The guiding principle for these changes is to deliver a solid, broad-based geoscience program to our undergraduate population in an efficient manner and well-organized progression. I look forward to the input from all undergraduate student, graduate student, faculty and staff members.

Our next steps will be to undertake a similar review of the graduate program and to develop a strategic plan for EASC. This will help our department evaluate its various research and teaching directions, and allow us to maximize the effectiveness of any new faculty hires. The department will also continue to work towards acquiring additional, much-needed laboratory space for the delivery of the undergraduate and graduate program.

I would like to take this opportunity to wish all of you every success in your endeavours.

James
Zack Tuckey won the DEGIRS Bursary in 2011 for his research on Non-Persistent Discontinuities and Rock Bridges in Slopes. Congratulations Zack!

Ivanka Mitrovic won the University Women’s Club Trust Fund Graduate Scholarship in Earth Sciences Award. Congratulations Ivanka!

Congratulations to Nick Roberts who received the President’s Research Stipend for Fall 2011. Nick also received the Emergency Preparedness Scholarship for Spring 2012, and the Steel Memorial Graduate Scholarship for Summer 2012. Well done Nick!

Congratulations to Patricia MacQueen on winning the CD Nelson Memorial Graduate Entrance Scholarship for Fall 2011.

Vincent Twomey was awarded the Cunningham Prize by the Geological Survey of Ireland for his Honours mapping thesis entitled “The Geology of the Ben Arnaboll area of Sutherland, UK”.

Congratulations to the following students who received Graduate Fellowships:

**Spring 2012**
- Leila Ertolahti
- Meghan Hewton
- Stacy Johnson
- Ivanka Mitrovi
- Zack Tuckey

**Summer 2012**
- Korhan Ayranci
- Flavien Beaud
- Brittan Jones
- Andrew La Croix
- Jolene Styan
- Rajesh Vayavur
- Janisse Vivas
- Martin Zaleski
Fouks Graduate Entrance Award

Congratulations to Jared Fath for winning the Fouks Graduate Entrance Award in Public Service for Fall 2011.

Provost Prize of Distinction

Patricia MacQueen is the successful winner of the Lucien La Coste Scholarship from the Society of Exploration Geophysicists for Fall 2011.

Allan Dakin Award

Mike Simpson won the Allan Dakin Annual Graduate Award in Hydrogeology for Fall 2011. Congratulations Mike!

SGES

Congratulations to Jolene Styan for receiving a Special Graduate Entrance Scholarship for Fall 2011.

Petro Canada Scholarship

Andrew La Croix won the Petro Canada Graduate Scholarship in Earth Sciences for Spring 2012. Congratulations Andrew!
Congratulations to **Meghan Hewton** on receiving her Best Student Presentation Award at the CIM Yellowknife Forum.

Congratulations to **Ryuji Marumo** and **Tim Peters** for winning a Student Book Prize, and also to **Mohsen Havaej** on a Graduate Students Scholarship Award.

Congratulations to **Zack Tuckey** for his first place finish at the 2011 BC Senior Weightlifting Championships.

Rajesh Vayavur presented his PhD Oral Exam on “Identification of Major Strike-Slip Faults Across the Bering Shelf using 2-D Acoustic Waveform Tomography” on Wednesday February 1st, 2012.

Andrew LeCroix presented his PhD Oral Exam on Friday November 25th, 2011. Title: “A modern-ancient comparison of HIS across the tidal-fluvial transition in rivers: the Fraser River, BC and the McMurray Formation, Northeast Alberta”.

Janise Vivas presented her Colloquium on “Groundwater modeling in open pit rock slopes” on Monday November 28th, 2011.

Corinne Griffing presented her PhD Oral Exam on “Pleistocene glaciation and environment in southern Patagonia” on Monday November 14th, 2011.

Ivanka Mitrovic presented her Colloquium on “Examining the interplay of the arc magmatism, deformation and metamorphism within the southern coast-cascade orogeny, Harrison Lake, BC” on Friday October 21st, 2011.

Stacy Johnson presented her Colloquium on Wednesday October 5th, 2011. Title: “Inclined heterolithic stratification in a mixed tidal-fluvial channel, Middle Arm, Fraser River, BC, Canada”.

Brittan Jones presented his Colloquium on “Integrated Ichnology Sedimentology and Stratigraphy of the Upper Cretaceous Mixed River-Wave Delta Complexes, Basal Belly River Rm. Central Alberta” on Wednesday September 28th, 2011.
<table>
<thead>
<tr>
<th>Student</th>
<th>Thesis Title</th>
<th>Defended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rafael Cavalcanti (MSc)</td>
<td>Hydrogeochemical Evolution and Arsenic Mobilization in Confined Aquifers Formed within Glaciomarine Sediments.</td>
<td>June 6th, 2011</td>
</tr>
<tr>
<td>Michael Galick (MSc)</td>
<td>Investigation of the iron-oxide mineralization at the Iron Range, southeastern BC</td>
<td>August 26, 2011.</td>
</tr>
<tr>
<td>Amir Farahbod (PhD)</td>
<td>Study of Non-Volcanic Tremors in the Cascadia Subduction Zone</td>
<td>September 7, 2011</td>
</tr>
<tr>
<td>Denny Capps (PhD)</td>
<td>Evolution of glacier-dammed lakes through space and time: Brady Glacier, Alaska, USA.</td>
<td>October 21st, 2011</td>
</tr>
<tr>
<td>Jim McDonald (MSc)</td>
<td>The Effects of Timber Harvesting and Windthrow on Landslide Initiation, Southwestern Vancouver Island.</td>
<td>November 9th, 2011</td>
</tr>
<tr>
<td>Eric Takam Takougang (PhD)</td>
<td>2D Waveform Tomography of the Queen Charlotte Basin of Western Canada and the Seattle Fault Zone.</td>
<td>December 12th, 2011</td>
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The Geological Association of Canada (GAC) is very pleased to announce that John Clague of Simon Fraser University, will be awarded the 2012 Ambrose Medal - for sustained dedicated service to the Canadian earth science community. John will be presented with this award at the GAC annual meeting to be held in St. John’s, NL in May.

EIC Fellows

The Engineering Institute of Canada elects annually Fellows in recognition of their excellence in engineering and their services to the profession and to society. Congratulations to Doug Stead who has been made a Fellow for 2012 and will be inducted on June 7, 2012 in Edmonton, AB.
EASC 206, Field Geology I, is undergoing a complete make-over. Starting in the Fall Semester of 2012, the field exercises will take place at locations near Merritt, B.C., on two weekends. The course will cover a broad range of earth science topics and serve as a foundation for our second field course, EASC 306. It will provide students with many of the skills necessary to gain seasonal employment as field assistants.

Below is a photo from the EASC 408/624 "Trans-Cordilleran" field trip this past fall, which spanned most of the width of the southern Canadian Cordillera from Canmore, AB to Vancouver, BC.
A LITTLE LEGAL ACTION IN THE DEPARTMENT

Students in EASC 410 “Groundwater Contamination and Transport” participated in a Mock Trial related to an actual civil action that took place in the 1980s surrounding contamination of drinking water wells in Woburn, MA. This famous case was one of the first to connect groundwater contamination to a leukemia cluster identified in the town. Using actual information on the local hydrogeology, groundwater contamination data and knowledge of contaminant transport principles, the students played the roles of lawyers (representing the plaintiffs and the two defendants) and expert witnesses. Sadly, our jury found only one of the two companies liable - the other got off scot-free.

5TH ANNUAL EARTH SCIENCES HOCKEY GAME

Faculty, staff, alumni, graduate and undergraduate students from the Department participated in the 5th Annual Earth Sciences Hockey game on March 14th, 2012. Team Dark versus Team Light hit the ice at Burnaby 8 Rinks - each player anxious to show off his or her great skills, agility and determination. Part way through the first period Matt Plotnikoff (goalie) decided to make a play up the ice. But alas, no goal for him. Overall, it was a close game, but no one kept track of the score. A thank you to everyone who participated.