



October 18, 2005

## **06pims007: Math in Budapest, with Art History**

### **Organizers:**

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### **Location:**

Budapest, Hungary

### **PIMS Sites:**

University of Calgary

### **Objectives:**

Enhancing an undergraduate degree with an international component is most desirable and a University of Calgary focus. Mathematics in Budapest, with Art History, 2006, is a UofC Credit Travel program. It will offer three UofC courses, two in mathematics and one in art history, in a month long study in Budapest, Hungary. Student will each register in two courses. The program will be led by UofC instructors in collaboration with instructors from Hungary. Hungary has been chosen as it has a long history of excellence in mathematics education. It is also the site of spectacular architecture and museums.

### **Comments:**

The Mathematics in Budapest program is the first University of Calgary Credit Travel Program which features courses in mathematics. The curriculum and hours of instruction are the same as when these courses are offered in regular sessions at UofC. The art history course will satisfy a non-science option for the students and has been chosen for its suitability to Budapest. The students will enjoy a high quality of academic teaching and will also

experience a rich culture and history.

The Credit Travel Office will provide assistance in coordination and with pre-departure orientation sessions. Promotional information will be provided to the PIMS universities.

Accommodations are reserved on the campus of the Budapest University of Technology and Economics, and classes will be held at the College International. Hungary has hosted the successful Budapest Semesters in Mathematics for twenty years and some of their facilities and organization have been used in this planning. In order to enhance the experience, students will be taken on field trips and to cultural events, some of which are associated with art history. In addition to a city tour, an opera, a river cruise and the guest lectures, field trips are planned for each Wednesday afternoon and each Saturday. These include short trips outside Budapest, museums, as well as rowing and biking excursions.

This program was run for the first time in 2005 with 10 students participating. The 2005 program was very successful. The target for 2006 is 15 to 20 students. The instructors are enthusiastic about running the program again and the 2005 students have volunteered to help with the promotion. These comments are typical of the student responses:

- "Thanks for the trip. It was awesome. We enjoyed every single minute of it"
- "I've falling in love with the city, it's so alive. Would not have happened if this program didn't take place".
- "I could not tell that this was the first year of the Budapest program. Thanks."
- "Thank you for making this wonderful experience in such a beautiful city, Budapest."
- "In life, I can apply DE's and live happily ever after."
- "Thanks, for a great course and including so many proofs!"
- "Clever organization and sleek moral support. Köszönöm Szépen!"

## Audience:

The program is planned for 15 to 20 students from the University of Calgary. Students from any of the PIMS universities are welcome. Students must have at least second year standing at the time of this program, and must satisfy the prerequisites (or equivalent prerequisites) for the mathematics course.

## Participants:

Group leader: Marguerite Fenyvesi, Assistant Head, Department of Mathematics and Statistics, University of Calgary

Faculty Instructors:

&#61485; Yousry Elsabrouty, Department of Mathematics and Statistics, U of C  
&#61485; Karoly Böröczky Jr., Renyi Institute of Mathematics, Budapest, Hungary  
&#61485; János Szirmai, co-instructor, College International, Budapest, Hungary  
&#61485; Gabriella Szigethy, co-instructor, Vis Art Arts Academy and Assistant Curator, Ludwig Museum, Budapest, Hungary

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Tutorial Instructor:

#61485; Marton Naszodi, Ph.D. student, Dept. of Math and Stats, U of C

Guest Lecturers:

- Laszlo Norbert Nemes, Liszt Academy of Music, Budapest, Hungary (1 lecture on Hungarian music)
- Erica Fallier, Budapest Semesters in Mathematics, Budapest, Hungary (2 lectures on the Hungarian language)

## Amount Requested:

9388.00

## Expenditures:

### Instructional Expenses

Air travel/insurance - Y. Elsbrouly/M. Naszodi (\$1,580.00 x 2) \$ 3,160.00  
Honorarium/benefits – 3 courses \$16,000.00  
Graduate Teaching Assistantship (Spring) – M. Naszodi \$ 3,547.00  
Accommodation with breakfast– Y. Elsbrouly \$ 2,560.00  
Per diem – Y. Elsbrouly \$ 800.00  
Ground transportation – Y. Elsbrouly/M. Naszodi \$ 200.00  
Classroom rental \$ 1,600.00  
Guest instructor honorarium \$ 180.00  
Total \$ 28,047.00

### Organizational Expenses

Air travel/insurance – M. Fenyvesi \$ 1,580.00  
Accommodations – M. Fenyvesi \$ 1,150.00  
Per diem – M. Fenyvesi \$ 800.00  
Ground transportation – M. Fenyvesi \$ 130.00  
Field trip expenses – M. Fenyvesi/Y. Elsbrouly/M. Naszodi \$ 465.00  
Miscellaneous (advertising/phone/fax/gratuities) \$ 200.00  
Total \$ 4,325.00

Total program expenses \$ 32,372.00

## Income:

Tuition: 2 courses for each of 15 or 20 students

(\$918x15) \$ 13,770.00

(\$918x20) \$ 18,360.00

(The University of Calgary provides the tuition from the participating students to Credit Travel

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Programs)

Departmental Sponsorship

Department of Mathematics and Statistics will contribute the honorarium for Y. Elsabrouty, the U of C instructor. \$ 2,667.00

The Department of Mathematics and Statistics will provide a Graduate Teaching Assistantship to M. Naszodi for his tutorial duties assigned in Budapest.

\$ 3,547.00

Faculty Sponsorship (not confirmed) \$ 1,500.00

Community Sponsorship (not confirmed) \$ 1,500.00

In 2005, the Faculty of Science and the Hungarian Veteran's Association each contributed \$1,500.00. These two sponsors will be approached for the 2006 program.

Total revenue for 15 students \$ 22,984.00

Total revenue for 20 students \$ 27,574.00

### **Selected Dates:**

Sun, May 28, 2006

Fri, June 30, 2006

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