



## Romania

May 22 – June 14  
3 HOURS CREDIT

### Mathematical Biology in Transylvania

Sponsored by  
the Department  
of Mathematics  
and Statistics



## Cluj, Romania

### TENTATIVE ITINERARY

Highlights of the program are provided below. This is a tentative schedule subject to change at the discretion of the program director. The university reserves the right to alter travel and other arrangements if required by circumstances.

- May 22 Depart from Atlanta airport.
- May 23 Arrive in Cluj.
- May 24 Jetlag recovery and first meeting with the Romanian students and guest lecturers.
- May 25 Individual or small group (including Romanian students) exploration of the city of Cluj.
- May 26–30 Alternate between daily lectures of 3 hours daily or 2 hours lecture plus 1-hour computer lab lecture (implementation of math bio models).
- May 31 Weekend trip to Brasov, visit to Dracula's Castle (in the City of Bran, near Brasov).

- June 2–5 Alternate between daily lectures of 3 hours daily or 2 hours lecture plus 1-hour computer lab lecture (implementation of math bio models).
- June 7 Day trip to visit the experimental labs set up for the Transylvanian Experimental Neuroscience Summer School, TENSS.
- June 8 Day trip through Transylvania – Salt mine in Turda, Rosia Montana, jointly with the International Students from Transylvanian Experimental Neuroscience Summer School, TENSS.
- June 9–12 Alternate between daily lectures of 3 hours daily or 2 hours lecture plus 1-hour computer lab lecture (implementation of math bio models).
- June 13 Group project presentation (2 hours) and final exam (2 hours).
- June 14 Students have the option of returning to Atlanta, continue to explore Romania, or to further explore Europe before returning to U.S.

### CONTACT

**Program Director: Remus Osan, Ph.D.**  
760 College of Education  
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**APPLICATION DEADLINE: February 7, 2014**  
Because program size is limited, early application is strongly advised. Individual interviews may be scheduled with students upon receipt of application.



## THE PROGRAM

Mathematical biology is one of the most important qualitative disciplines in life sciences, teaching students to quantitatively describe the features observed in nature and to set forth hypotheses about the inner workings of the biological system. Students enrolled in this study abroad program will have an opportunity to learn more about applications of mathematics in biology and neuroscience while immersed in an intercultural environment. They will interact extensively with a similar number of Romanian students taking the same course. Students working together on course-related projects will enhance the intercultural interactions beyond the classroom. This course provides an introduction to the use of mathematical tools of methods used to investigate the properties of biological systems, ranging from cellular processes to population dynamics. Biological topics will include single species and interacting population dynamics, modeling infectious and dynamic diseases, regulation of cell function, biological oscillators and neural networks. Classes will be held in Cluj, Romania, from May 26, 2014 to June 13, 2014. Cluj has a diverse cultural scene with museums,

# Cluj, Romania: Mathematical Biology in Transylvania

theaters, operas and neighborhoods containing many historical landmarks, and has a variety of film festivals and live music performances. All these should contribute to a better appreciation of Romanian culture, as fostered by interactions with the Romanian students and mentors. Additional trips are planned to explore the areas nearby Cluj.

## ACCOMMODATIONS

Students will be staying in local university dorms at relatively inexpensive rates. In addition, there are local bed and breakfast places in Cluj that are affordable.

### Disability Accommodations

*This teaching component of the course will accommodate students with disabilities. The local trips may require extended walking. Students with documented disabilities who may need accommodations during their study abroad experience should discuss these needs with the program director and the Office of Disability Services at the time of application.*

## ELIGIBILITY

The program is open to undergraduate and graduate students who meet all academic requirements of the Georgia State University College of Arts and Sciences. Program size is limited and participation is contingent upon acceptance by the program director. Students are advised to submit their application early.

## CREDITS AND COURSES

There are two cross listed courses for this study abroad program, Math 4010 for undergraduate students and Math 6010 for graduate students who want to enroll in the study abroad program. The course prerequisites are: Math 2212 (CALCULUS OF ONE VARIABLE II) or Math 1220 (SURVEY OF CALCULUS) with grade of C or higher, or the consent of the instructor. Participants who successfully complete the trip and the course will receive 3 semester hours of course credit at Georgia State. Students from

other institutions should follow their institution's regulations concerning transfer credits.

## COST

Program cost may vary at any time according to currency fluctuations and changing travel arrangements. The program cost is tentatively set at \$1,800, **PLUS** regular Georgia State tuition and fees. Non-resident/out-of-state students will pay in-state tuition plus a \$250 fee in addition to the program cost.

### Price Includes

- Ground transportation, excursions and entrance fees
- Accommodations
- Public transportation
- Meals
- Lectures, tours and receptions
- Emergency allowance (\$500)
- Health/Evacuation/Repatriation insurance

### Price Does NOT Include

- Georgia State tuition and fees
- Round trip air fare to Cluj (about \$1,200)
- Passport and visa fees
- Personal expenses and excess baggage charges

### PAYMENT SCHEDULE

\$400 deposit with application due by  
**February 7, 2014**

\$400 due by **March 7, 2014**

**\$1,000 (remaining balance) due by April 11, 2014**  
(All payments are non-refundable upon receipt.)

## FUNDING AND SCHOLARSHIPS

Georgia State students are eligible to apply for the IEF Study Abroad Scholarship/Georgia State University Foundation Scholarship and may be eligible to apply for the Global Experience Scholarship.



Visit [www.gsu.edu/studyabroad](http://www.gsu.edu/studyabroad) or contact the Office of International Initiatives, Study Abroad Programs at **404-413-2529**, for more information.

Contact the Office of Financial Aid at **404-413-2400** for information on how financial aid might apply toward the program. Students have the option of purchasing an "International Student ID Card" from STA Travel for travel discounts in participating countries. For more information, visit the STA Travel website at [www.sta-travel.com](http://www.sta-travel.com).

## APPLICATION INFORMATION

Students interested in applying should locate this program's listing at [www.gsu.edu/studyabroad](http://www.gsu.edu/studyabroad) and complete online application. Since number of participants is limited, early application is strongly advised. Individual interviews will be scheduled with students upon receipt of application. Payment deadlines are strictly enforced.

**Transient Students:** Please see Transient Student page at [www.gsu.edu/studyabroad](http://www.gsu.edu/studyabroad).

International students at Georgia State who hold F-1 visas must contact the Office of International Students and Scholar Services at **404-413-2070** to discuss possible implications of study abroad for their immigration status.

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