

Brazil

Photo by: Phil Harris

Short-term Faculty-led Study Away Program • Summer 2014 • July 17-24, 2014

Course Name: **Making the Connection: Environmental Comparisons in North and South America**

Course Numbers: **BIO 597, BIO 697, CHM 597, CHM 697**

Credit Hours: **3** undergraduate/graduate

Course Overview & Objectives:

This course is designed to increase awareness of global connections, specifically between North and South America. Students will be exposed to different cultures and will discover threads of commonality, from food to resource consumption. Travel to Belem will allow students to:

- Experience both worlds and see connections firsthand
- See birds that live in both places and hear about specific neotropical migrants that are found here in Missouri and in Brazil
- Obtain carbon uptake data and extrapolate carbon sequestration and water quality monitoring in two different worlds

While the main focus of the course is the environmental connection, students also will experience the customs and beliefs of the Brazilian society.

Program Fee: \$2,880

Program Fee Includes: Round-trip airfare, lodging, ground transportation, most meals, program activities, tour of Belem, Belem airport exit fee, Study Away student fee, and basic medical insurance; separated costs not available.

Program Fee Excludes: Passport, ground transportation in Springfield, some meals, incidentals/misc personal expenses, and souvenirs. \$612/\$741 MSU tuition for 3 hours of undergraduate/graduate credit. Both Missouri residents and non-residents pay the Mo. resident per-credit-hour tuition rate, per University policy.

Applications are due by March 14, 2014. A **nonrefundable deposit of \$432 will be billed to your student account.** Please see Application & Payment Procedures for MSU and Visiting Students on reverse.

Scholarship Eligibility & Financial Aid

Students may apply for the College of Natural and Applied Sciences Study Away scholarship. Applications are due to the Study Away office by April 11, 2014. Please see the scholarship page on the Study Away website. Additionally, students who receive financial aid may apply aid to this program. Contact the Office of Financial Aid at 836-5262 for more information.

Informational Meeting:
TBA

Application Due:
March 14, 2014

Depart Springfield for Brazil:
July 17, 2014

Depart Brazil for Springfield:
July 24, 2014

Post-Travel Meeting:
TBA

Interested in going?

Contact one of the Program Directors:
Dr. Janice S. Greene, Professor,
Department of Biology: 836-5306
JaniceGreene@missouristate.edu

Dr. Diann Thomas, Senior Instructor,
Department of Chemistry: 836-4166
DiannThomas@missouristate.edu

Study Away!

Missouri State
UNIVERSITY

An EO/AA Institution

Missouri State University Study Away Programs
Jim D. Morris Center, Suite 403
301 S. Jefferson Ave., Springfield, MO 65806
P: 417-836-6368 • E: StudyAway@MissouriState.edu
W: <http://international.missouristate.edu/studyaway/>

Course Schedule & Itinerary

By combining pre-travel field work in Missouri with research in Brazil, participants in this program will understand many of the ways that North and South America are connected:

- Students will be able to describe the importance of both the equatorial tropics and temperate North America to neotropical migrant birds
- Students will be able to describe the relationship of rainforest to global climate
- Students will compare the carbon uptake of a typical temperate forest in North America to primary and secondary rainforests in South America

Students also will describe a watershed and how it affects water quality:

- Students will be able to define a watershed and how changes in the watershed affect run-off
- Students will be able to describe how a watershed influences water quality
- Students will compare key chemical and ecological indicators of water quality in North America (Bull Shoals Lake) and South America

STUDY TOUR

TBA: Bull Shoals Field Station: introduction, determination of data sampling areas (*meeting place & time TBA*)

TBA: Chemistry: measure water, soil, air quality indicators: take tree measurements (*meeting place & time TBA*)

TBA: Biology: bird banding, neotropical migrants – ecology and natural history (*meeting place & time TBA*)

TBA: Biology: Watershed activities – topographic maps, changes in flow (*meeting place & time TBA*)

July 17, 2014: Fly from Springfield to Belem, Brazil.

July 18, 2014: Orientation to Belem; city tour.

July 19, 2014: Hiking/bird watching in primary and secondary rainforest in am; Neotropical migrants

July 20, 2014: Visit a local community.

July 21, 2014: Measurement of water quality indicators.

July 22, 2014: Measurement of water quality indicators; birding.

July 23, 2014: Tour bird conservation park. Depart for Springfield.

July 24, 2014: Arrive in Springfield.

POST-TRAVEL

TBA graduate student presentations.

Course Credit & Requirements

Biology majors/minors and other interested students (with permission of instructor) will enroll in **BIO 597: Special Topics in Biology** and receive 3 hours of undergraduate credit.

Biology graduate students and accelerated master's students will enroll in **BIO 697: Special Topics in Biology** and receive 3 hours of graduate credit. These students will write a formal 6-page report on a related topic, such as watershed management in North and South America, neotropical migrant conservation, food connections of North and South America, etc.

Chemistry majors will enroll in **CHM 597: Special Topics in Chemistry** and receive 3 hours of undergraduate credit.

Chemistry graduate students and accelerated master's students will enroll in **CHM 697: Special Topics in Chemistry** and receive 3 hours of graduate credit. These students will write a formal 6-page report on environmental chemistry and carbon uptake of Northern vs. Southern Hemisphere hardwood forests.

Evaluation of 597-level students:

- a. Journal of cultural observations and experiences - 22%
- b. Lab book of collected data - 22%
- c. Quizzes over reading assignments, lectures and field trips - 22%
- d. Group participation/dynamics - 22 %
- e. Attendance at presentations - 12%

Evaluation of 697-level students:

- a. Journal of cultural observations and experiences - 20%
- b. Lab book of collected data - 20%
- c. Quizzes over reading assignments, lectures and field trips - 20%
- d. Short research paper and presentation (topics will vary according to whether the student enrolls in biology or chemistry) - 20%
- e. Group participation/dynamics - 20%

All students will receive a letter grade.

Required Text: None. Students will receive a packet of materials from the Program Directors to read and discuss before and during travel.



Photo by: Geoff Gallice

Application & Payment Procedures

Missouri State University students and others who are approved by a Program Director may apply. Instructions are included on the program application.

MSU Students: A non-refundable deposit of **\$432** will be billed to your University account upon application (deadline March 14, 2014). You will receive a second billing on April 18, 2014 and a final billing on May 16, 2014, for the balance of the program fee (\$2,448). MSU course tuition (\$612/\$741) will be billed to your University account and is due according to the university payment plan.

Visiting Students: A non-refundable deposit of **\$432** (check or money order) must accompany your application (deadline March 14, 2014). A check or money order for the **balance of the program fee (\$2,448) will be due by June 6, 2014**. MSU course tuition (\$612/\$741) will be billed to your University account and is due according to the university payment plan.

IN ORDER TO ENSURE PARTICIPATION IN THIS STUDY AWAY PROGRAM, THE ENTIRE AMOUNT OF THE PROGRAM FEE MUST BE RECEIVED BY JUNE 30, 2014. PAYMENT CAN BE MADE ONLINE OR AT THE BURSAR'S OFFICE.

Estimated program fees are based on rates in effect on the publication date of this flyer and may be subject to change. Program participants agree to a potential increase of up to 10% if rates increase before or during travel.

Cancellation & Refund Policies

- Students who withdraw prior to June 6, 2014 will receive a refund of fees paid, less the \$432 deposit and any non-refundable purchases made on his/her behalf.
- If a student is forced to withdraw after June 6, 2014 for a bona fide medical reason, s/he will receive a refund of fees paid, less the \$432 deposit and expenses. A certificate of incapacitating illness or injury from a licensed physician is required.
- Students withdrawing voluntarily after June 6, 2014, or withdrawing due to medical reasons not protected under the fees refund policy, receive no refund.
- Once the program has started, no refunds will be issued under any circumstances.
- All notifications of withdrawal must be made in writing and sent to the Program Director and Director of Study Away Programs at the Study Away Office, Jim D. Morris Center, Suite 403. Non-payment of fees does not guarantee automatic withdrawal.