Department of Biology Study Abroad Guide

The Department offers three concentrations in biology – 1) Integrative 2) Cellular/Molecular, and 3) Ecology, Evolution and Environmental Biology. With careful planning, study abroad is encouraged for each concentration. Students in biology have the opportunity to work with an advisor in biology in their first year no later than their second semester if they request one. Students in their first year who wish to discuss how to plan their academic program with a study abroad interest should contact the Department Chair or the biology faculty liaison for assistance.

The many study abroad programs fall into three main categories. Semester length programs offer a more in-depth immersion in another culture and, in some cases, another language. Summer programs can vary in length from a week to most of the summer. Finally, the semester break programs offer a brief, but enriching experience.

Majors in biology will find the summer and semester break programs offer an easy way to do study abroad without affecting their academic course sequencing. Semester programs demand careful attention, well in advance of the semester of travel. Most students participate in semester length programs in either their sophomore or junior year. Year-long study abroad is not usually possible unless some courses are completed in the summer or by doing a 5^{th} year semester.

Year-long course sequences required for biology majors make scheduling for semester based study abroad more challenging. These include: math (calculus), language, principles of chemistry, and foundations in biology. Importantly, students preparing to attend a professional school in medicine, dentistry, optometry, pharmacy, and veterinary medicine will also be required to take both semesters of organic chemistry and physics. Students intending to apply to a physician assistant program must take a year of organic chemistry (but not physics). Physical therapy students need a year of physics, but not organic chemistry. For each program additional one-semester course requirements apply. The scheduling problem is compounded by the necessity of completing courses in preparation for the entrance exam for a professional program, usually taken in the spring of the junior year.

Common solutions for completing year-long courses interrupted by study abroad are:

1) Stagger the first and second course. Take course one in the fall (or summer) and course two in the spring of the next year. Be aware that a summer-semester combination from different academic institutions can often mean that the two courses do not complement each smoothly.

2) Take both courses during the summer to ensure continuity between the end of the first and start of the second term.

3) Consider doing a gap year. This allows the student to take year-long course sequences in the senior year after traveling abroad during either the sophomore or junior year. Take the entrance exam for a professional program in the spring of the senior year, followed by application after graduation.

It is possible that some math and science courses can be completed during a semester abroad if offered by the university affiliated with the study abroad program. All such courses must receive approval by the chair of the department that normally offers that science or math course at Saint Mary's. More typically, study abroad courses are used to satisfy Sophia requirements.

The Department of Biology currently offers two study abroad programs, staggered so each is offered in a different year.

BIO 209 Marine Biology (lab, 4 credit hours, satisfies the field requirement)

Marine biology is offered in the spring semester on alternate years. Students learn principles of marine biology during lecture hours and complete their laboratory work with a week-long Spring Break trip to an island off the coast of Belize. Typical activities include designing and carrying out experiments that typically involve snorkeling, sample collecting, observations, and data analysis.

Sophia credits included with the course:

- LO3 Global Learning B
- LO3: Academic Experiential Learning

BIO 270 Environments of Ecuador (non-lab, 3 credit hours)

Environments of Ecuador is offered in alternate years in the summer. Students complete pre-trip classes during the semester prior to travel to the Andes mountains, Amazon rainforest, and Galapagos islands for 15 days. Participants learn about the rich culture of Ecuador and have many opportunities to experience nature through hiking, swimming, and snorkeling.

Sophia units included with the course:

- LO1: Natural Science (non-lab)
- LO3: Intercultural Competence B
- LO3: Global Learning A
- LO3: Academic Experiential Learning