



# BIOFEEDBACK

Newsletter of the Biology Department and BioClub of Saint John's University and the College of Saint Benedict

Welcome to the "New Student Issue" of *BioFeedback*, which is the official publication of the College of St. Benedict/St. John's University Biology Department and Biology Club. This issue of *BioFeedback* is designed to answer some of the common questions that new, prospective, and even current, students may have about the Biology program at CSB/SJU. We hope that you find it helpful and wish you every success this year at CSB/SJU.

### **HOW MANY FACULTY ARE IN THE BIOLOGY DEPARTMENT?**

The Biology department has 17 faculty members.

### **WHO ARE THE FACULTY AND WHAT ARE THEIR SPECIALTIES?**

The biology department faculty are Dr. H. Adrian (aquatic biology), Dr. G. Brown (ecology), Dr. D. Wright (physiology), Dr. N. Ford (ornithology), Dr. R. Henry (microbiology), Ms. C. Jansky (lab coordinator), Dr. E. Jensen (microbiology), Dr. C. Knox (Dean SJU molecular genetics), Dr. Marilyn Meinke (biochemistry), Dr. J. Poff (entomology), Dr. E. Ribbens (plant ecology), Dr. C. Rodell (genetics and evolution), Dr. S. Saupe (plant biology), Dr. J. Schneider, (molecular virology and fisheries), Dr. M. Webster (physiology), Dr. E. Wurdak (cell biology), Mr. B. Lamberts (aquatic ecology), and Dr. E. Simon (molecular biology).

### **WHO SHOULD I CONTACT IF I HAVE ANY QUESTIONS?**

See any Biology prof. The department chair, Dr. Poff, is especially helpful concerning "administrative" issues.

### **WHERE CAN I GET MORE INFORMATION ABOUT BEING A BIOLOGY MAJOR?**

Any biology professor can help. Also, you should get a copy of the *Biology Advising Manual* which is available from Dr. Poff or other biology professor.

### **WHAT ARE THE REQUIREMENTS FOR A BIOLOGY MAJOR?**

In addition to the Core requirements, a biology major is required to take both semesters of Concepts of Biology (BIOL 115 & BIOL 116), six upper division courses in biology, Biological Literature (BIOL 200), one semester of math (MATH 123, MATH 124, or MATH 119) and two semesters of chemistry (CHEM 123 & CHEM 234). Students are encouraged to take Biological Literature during their sophomore year.

### **WHAT UPPER DIVISION CLASSES DOES THE BIOLOGY DEPARTMENT OFFER?**

The biology department offers more than 23 upper division courses, with upper division independent study available. We offer classes in all major areas of biology. The department has categorized its course offerings in four groups: Group I courses are taxonomic; Group II are cellular/molecular; Group III are structure/function and Group IV are ecology/evolution courses.

### **WHAT CLASSES DO YOU RECOMMEND THAT A BIOLOGY MAJOR TAKE THE FIRST SEMESTER?**

Along with Symposium (CORE 100 and 101), we recommend for Fall, Concepts of Biology (BIOL 115), General Chemistry I (CHEM 123) and an elective (typically a course fulfilling Core Curriculum requirements). For Spring, Concepts of Biology II (BIOL 116), General Chemistry II (CHEM 234), Core 101 and either an elective or a math course.

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**WHAT UPPER DIVISION CLASSES SHOULD I TAKE FOR A BIOLOGY MAJOR?**

That depends upon your specific interests. Biology majors are required to take one course each from groups I, II and III, IV and two additional classes from any of the four course groups. The choice of courses within groups is left to the student. Consult your advisor and/or the *Biology Advising Manual* for more information.

**DO I NEED TO TAKE ORGANIC CHEMISTRY OR PHYSICS?**

No, these courses are not required for a biology major. However, because of the central importance of chemistry and physics in understanding biological systems, most biology students do take these courses. In addition, they are required by most graduate and professional schools. Consult with a biology prof. for specifics.

**I AM INTERESTED IN MEDICAL SCHOOL. WHAT CLASSES DO I NEED TO TAKE? WHERE CAN I GET MORE INFORMATION?**

Medical schools will accept students from any major if they have a good science background and do well on the MCAT exam. Contact the pre-med advisors, Dr. N. Ford (Biology), Dr. R. Jochman (Chemistry) or Dr. A. Olson (Nutrition) for more information.

**WHO DO I CONTACT FOR INFORMATION ABOUT THE OTHER PRE-PROFESSIONAL PROGRAMS SUCH AS PHYSICAL THERAPY, DENTISTRY AND VETERINARY MEDICINE?**

Dr. R. Henry (Biology) is the advisor for vet medicine. Dr. B. Muldoon (Chemistry) is the advisor for pharmacy and medical technology. Dr. N. Ford (Biology) is the dentistry advisor. Dr. S. Saupe (Biology) is the forestry advisory.

**HOW LARGE ARE BIOLOGY CLASSES?**

The size of biology classes is variable. The Concepts course, our largest, has approximately 40 students per section, though for second semester, classes are considerably

smaller. Upper division biology classes generally have no more than 30 students and as few as 10. Labs, excluding Concepts, are usually fewer than 16 students.

**HOW DOES COLLEGE BIOLOGY DIFFER FROM HIGH SCHOOL BIOLOGY?**

College biology classes typically cover more material in greater detail and at a greater rate than high school courses. Also, college courses emphasize understanding rather than memorization.

**IF I DID WELL IN HIGH SCHOOL BIOLOGY DOES THAT MEAN I'LL DO WELL IN CONCEPTS?**

A good high school background will certainly help, but it is not a guarantee for success. The only sure route to success is studying. Too many students make the mistake of thinking that since their high school biology course was easy and they didn't have to study hard, they can do the same in Concepts.

**WHAT DO YOU RECOMMEND IN ORDER TO DO WELL IN CONCEPTS OF BIOLOGY?**

At a minimum, attend class and take copious notes. There is no substitute for personal experience with class material. Complete assigned readings and think about the material. Avoid simple memorization. Strive to understand rather than memorize.

**HOW MUCH TIME SHOULD I STUDY FOR CONCEPTS EXAMS?**

We recommend two hours for every hour in class. It's better to study throughout the semester rather than to cram before exams. Develop good study habits and learn to budget your time.

**WHAT DO I DO IF I'M NOT DOING WELL IN MY CLASSES?**

Above all, talk to your instructor at the first sign of trouble. Don't wait until it's too late. Ask for study tips, exam taking tips, etc. Studying in groups is often helpful. The CSB/SJU Advising Offices and Counseling Services

can also help. Tutors are available at no cost. Your lab T.A. may also be available to help you.

### **WHAT CAN I DO WHEN I GRADUATE WITH A BIOLOGY MAJOR?**

There are many opportunities open to a person with a biology degree. For example, some of our recent graduates have entered graduate and professional (medicine, dentistry, physical therapy, business, law) schools, while others have found employment in a variety of areas such as lab technicians, pharmaceutical sales, teaching, the Peace Corps, and public interest groups (e.g., Sierra Club).

### **DOES THE BIOLOGY DEPARTMENT HIRE WORK-STUDY STUDENTS?**

Yes, there are many students with work-study appointments in the biology department. Among the positions available are greenhouse assistants, teaching assistants for various courses, office assistants for faculty, and research assistants to help with faculty research projects.

### **WHAT, AND WHERE, IS THE HERBARIUM?**

A herbarium is a collection of pressed, dried, and identified plants; in essence, a plant morgue. The Biology Department Herbarium has more than 25,000 specimens of vascular and non-vascular plants and fungi. Dr. Saupe is the curator of the herbarium which is located in SC 327.

### **WHAT, AND WHERE, IS THE SCIENCE MUSEUM?**

Located in SC 323, the Science Museum houses a large collection of mammals, birds, and insects. There is a display area with several exhibits and a large conference table that can be used for studying. Dr. Ford is the curator of the museum.

### **CAN STUDENTS USE THE GREENHOUSE?**

Yes, the Biology department maintains a large greenhouse collection of plants for use by students, faculty, and staff. We have particularly good collections of orchids, bonsai, and cacti and other succulents. The greenhouse, which is used primarily for teaching and research, publishes a newsletter, plant "sits" during holidays, sponsors plant care workshops, maintains an outdoor demonstration garden, and holds plant sales. Br. Urban Pieper is the manager of the greenhouse and Dr. Brown and Dr. Ribbers are the faculty directors.

### **ARE THERE OPPORTUNITIES FOR STUDENTS TO DO RESEARCH?**

The department strongly encourages students to participate in research. You may enroll in BIOL 372A (Biological Research) and design an individualized project in collaboration with a faculty member. Some students remain on campus during the summer and conduct research with a faculty member. Still others complete projects as a part of the Honors program. Alternately, you can simply help out in the lab/field; the main thing is to get involved!

### **IS THE BIOLOGY DEPARTMENT EQUIPPED FOR TEACHING AND RESEARCH?**

The department has adequate facilities to conduct most types of biological research. In addition to the usual assortment of lab equipment (e.g., pH meters, balances, pipettes, growth chambers), the department has a scintillation counter, scanning and transmission electron microscopes, UV-visible scanning spectrophotometer, centrifuges, microplate reader, Gilson respirometer, fraction collector, laminar flow hoods, gas-liquid chromatograph, high pressure liquid chromatograph, cell counter, and an ultracentrifuge just to name a few items. The department also has access to excellent computing facilities. In addition, the two campuses provide unrivalled opportunities for field research in prairie, savanna, deciduous forest, and lake and wetland habitat.

## **BIOFEEDBACK**

*BIOFEEDBACK* is a monthly publication of the Biology Club and the Biology Department at Saint John's University and the College of Saint Benedict. Send contributions for publication to one of the editors at:

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## **THE BIOLOGY CLUB OFFICERS**

**Co-Presidents:** Perry Regas and Molly Moore

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**Public Relations  
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**Biofeedback  
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**Faculty Advisors  
for the  
Biology Club:** Dr. Adrian, Dr. Brown, Dr. Saupe

**Faculty Editors  
of Biofeedback:** Dr. H. Adrian, Dr. S.G. Saupe

## **IS THE BIOLOGY DEPARTMENT FACULTY INVOLVED IN RESEARCH?**

The biology department faculty are involved in a variety of research projects. For example, Dr. Rodell is currently studying selection and genetic recombination in fruit flies. Other projects include studies of: algal biology (Dr. Adrian), the cryptobiotic abilities of mushrooms (Dr. Saupe), energy budgets in chickadees and house finches (Dr. Webster), yeast biology (Dr. Meinke), effects of herbivory on golden rod growth and reproduction (Dr. Brown), the social behavior of wasps (Dr. Poff), cloning mice antibody RNA molecules (Dr. Knox), rotifer biology (Dr. Wurdak), leptospirosis (Dr. Henry), reproductive strategies of birds (Dr. Ford), plant recruit-

ment (Dr. Ribbens), frog development (Dr. Lust) and phage isolation (Dr. Jensen).

## **WHAT IS THE BIOLOGY CLUB? CAN ANYONE JOIN?**

The Biology Club is a student organization that focuses on biology oriented activities. The group takes field trips, goes camping, bring speakers to campus, sponsors fund raisers and participates in various activities such as the Deer Count. Membership is open to all students. Biology majors are especially encouraged to join. Meetings are held regularly. Notices about dates and times are posted in the Science Building. If you have any questions about the Biology Club, call either Perry Regas or Molly Moore.

P A G E F O U R

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