



School of Environmental  
and Biological Sciences

UNDERGRADUATE PROGRAM

# Educational Opportunity Fund





## SCHOOL OF ENVIRONMENTAL AND BIOLOGICAL SCIENCES

Students at the Rutgers School of Environmental and Biological Sciences are part of a rich history of learning, innovation, service, and community. They enjoy the benefits of well-established professional and pre-professional degree programs complemented by hands-on learning and extracurricular experiences.

We foster an environment that encourages leadership and values individuals. Our integrated teaching, research, and outreach programs offer students a complete and well-rounded education both inside and outside the classroom—and prepares students for employment and citizenship in an increasingly interrelated, global community.

## EDUCATIONAL OPPORTUNITY FUND PROGRAM

The Rutgers School of Environmental and Biological Sciences Educational Opportunity Fund (EOF) is an office of educators who work to facilitate the academic, personal, and career growth of students by offering services designed to promote lifelong learning with service to local and global communities. We exist to ensure access to quality higher education, especially for students who have encountered economic and educational challenges.

EOF is funded through the Office of the Secretary of Higher Education, Undergraduate Academic Affairs, and the School of Environmental and Biological Sciences Dean's Office. Using a holistic approach to academic support and a progressive network of programs and services, EOF's philosophy on education is adopted from a Chinese proverb:

If you are planning for a year, sow rice.  
If you are planning for a decade, plant a tree.  
If you are planning for a lifetime, educate a person.

## IMPACT OF THE SCHOOL OF ENVIRONMENTAL AND BIOLOGICAL SCIENCES EOF OFFICE

The School of Environmental and Biological Sciences EOF program plans for a lifetime. We promote excellence through access to higher education by helping bright, motivated New Jersey residents to realize their dream of a university education. We work with students who may need additional academic and financial assistance to ensure their successful transition from high school to Rutgers University.

At Rutgers School of Environmental and Biological Sciences, EOF administers a progressive network of programs and services, including:

- ▶ The Educational Opportunity Fund Program (EOF);
- ▶ The EOF Summer Student Transition (to) Academic Research Training -Undergraduate Program (S.T.A.R.T.-U.P.);

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- ▶ The Rutgers University Extended General Chemistry Course GEMS (General Education in Math and Science);
- ▶ The Solid GEMS Summer Institutes;
- ▶ Internships and undergraduate research programs; and
- ▶ Educational counseling and academic support, as well as other services.

Since its inception in 1969, the program has always engaged in innovative practices. The School of Environmental and Biological Sciences EOF program prepares students to solve some of the more challenging problems of the twenty-first Century. Learning how to identify and create solutions to social problems in the areas of food, nutrition and health and climate and energy is an important part of what we do at School of Environmental and Biological Sciences EOF. We welcome you to join our alumni—physicians, forecasters, dieticians, dentists, chemists, teachers, biologists, physical therapists, analysts, community organizers, consultants, and CEO's in meeting today's challenges.

## DEVELOPING TOMORROW'S LEADERS TODAY

The EOF office at the Rutgers School of Environmental and Biological Sciences is preparing students to take leadership roles in their professions and communities. We provide opportunities for students to excel academically and on a national level; develop confidence in presenting publicly to scholarly audiences and state legislators; serve as student role models; perform service to the community; and form networks with other EOF students and School of Environmental and Biological Sciences EOF alumni. The curricular and co-curricular programs and activities we sponsor include;

- ▶ Linkages with many School of Environmental and Biological Sciences academic departments for career pathway development;
- ▶ A partnership with YALE University to place outstanding Rutgers SEBS EOF undergraduates in the Yale Summer Undergraduate Research Fellowship (SURF), a component of the national Leadership Alliance;
- ▶ Internships for GEMS Chemistry Program students;
- ▶ The C.O.S.I.N.E. student organization (Community of Students Involved "N" Education), a chapter of the State-wide EOF student alliance; and
- ▶ An active EOF alumni network.

These complement the wide variety of student organizations, student life programs, leadership development initiatives and undergraduate research opportunities available at the School of Environmental and Biological Sciences and throughout the Rutgers-New Brunswick campus.





Further, as part of the EOF counseling and advising component, EOF promotes goal-oriented decision-making, effective communication, conflict resolution, basic financial management and other life strategies that are the hallmark of effective leaders.

## EDUCATIONAL OPPORTUNITY FUND SUMMER START-UP FOR ENTERING STUDENTS

The initial experience for freshmen entering School of Environmental and Biological Sciences through EOF is Summer S.T.A.R.T.-U.P. The summer experience is a four-five week residential program and is mandatory for entering School of Environmental and Biological Sciences EOF students. The School of Environmental and Biological Sciences EOF has designed this summer program to improve student performance and increase first year retention rates by:

- ▶ Orienting students to available programs and services;
- ▶ Assessing students' academic needs;
- ▶ Preparing students for life at a major research institution;
- ▶ Facilitating personal responsibility for the learning process; and
- ▶ Assisting students in identifying their first-year goals and academic major.

At the core of Summer S.T.A.R.T.-U.P. is an intensive academic component comprised of multidisciplinary seminar courses in Mathematics, English Composition, Critical Thinking and Scientific Inquiry.

The residence life and counseling component of Summer S.T.A.R.T.-U.P. are crucial in promoting a cohesive living and learning community where students live together with an emphasis on personal growth, academic maturity and an appreciation of diversity.

As a result of Summer S.T.A.R.T.-U.P., EOF students begin the fall semester with three (3) undergraduate degree credits and a greater familiarity with the academic demands and social environment of Rutgers University.

## FIRST-YEAR STUDENT EXPERIENCE

The School of Environmental and Biological Sciences EOF program is dedicated to helping students succeed in their critical first year and throughout their tenure at the Rutgers University School of Environmental and Biological Sciences. Beginning with Summer S.T.A.R.T.-U.P. for entering Educational Opportunity Fund students, the staff works directly with students to:

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- ▶ Foster active learning, build teams, and develop leadership skills;
- ▶ Identify academic and personal strengths, as well as any areas in need of development;
- ▶ Help clarify personal, educational and career goals; and
- ▶ Prepare for further study in graduate and/or professional school.

We encourage students to “begin with the end in mind,” by training them to think and act as scholars from their first day on campus. Thus, support services and courses that begin in the Summer START-UP continue into the academic year. These include:

- ▶ Seminar in Academic Skills;
- ▶ S.P.H.E.R.E. (Students Promoting Higher education through Relationships and Empowerment);
- ▶ Individual and group academic support sessions;
- ▶ Workshops and special presentations;
- ▶ Seminar in Critical Thinking; and
- ▶ Career pathways exploration.

The S.P.H.E.R.E. Project consists of small group meetings, facilitated by the students’ counselor/ advisor, where students learn to work together to support each other’s academic achievements. Also throughout the first year, students meet in individual, weekly sessions with their counselor/ advisor to discuss academic progress, task management, and any other areas of concern.

## ACADEMIC ADVISEMENT

The School of Environmental and Biological Sciences EOF program believes that students are responsible for their personal growth, development, and education. They possess a great capacity to make positive, adaptive changes in their educational development. The role of the office is to serve as a supportive and professional resource to assist students in navigating the complexities of life at the Rutgers School of Environmental and Biological Sciences.

Program services and activities encourage each student’s need to understand what is required to succeed in college and develop an accurate view of her or his personal skills and strengths. The Rutgers School of Environmental and Biological Sciences EOF staff will guide and direct, inform and instruct, encourage and support students as they progress towards graduation.

Each student is assigned to an EOF counselor who serves to facilitate the student’s progress towards meeting their educational objectives. Counselors assist students with:

- ▶ Understanding first-year placements and curriculum requirements;
- ▶ Identifying a major that best suits their individual strengths and interests;
- ▶ Selecting courses that will facilitate timely completion of graduation requirements;





- ▶ Completion of graduate and professional school applications;
- ▶ Realizing and acting upon their civic duty to local and national communities; and
- ▶ Preparation for active participation in a globally competitive workforce.

## SOLID GEMS: A TRADITION OF EXCELLENCE

### Extended General Chemistry 165/166

The Solid GEMS (General Education in Math and Science) Chemistry Methodology has been in the vanguard of science education at Rutgers University for more than twenty-five years. The SEBS EOF program partnered with the Rutgers-New Brunswick Department of Chemistry and Chemical Biology to offer instruction and improve student rates of success in the General Chemistry course sequence. Formerly Solid GEMS Chemistry 161/162, the course has been renamed and the course number has been changed to distinguish it from the General Chemistry 161/162 course. While the course material remains the same, for both courses, Solid GEMS Chemistry has been given a new name and number to maintain its current structure. Solid GEMS Chemistry 161/162 is now Extended General Chemistry 165/166. The course continues to provide a solid foundation for study in the sciences for thousands of Rutgers students and alumni.

The core of Extended General Chemistry 165/166 is an immersion teaching method that promotes abstract reasoning while privileging the student learning process. Extended General Chemistry classes are:

- ▶ Designed for student mastery of the cognitive skills concepts needed for related to self-directed learning;
- ▶ Smaller, with more lecture and in-class recitation sections;
- ▶ Scheduled for every weekday;
- ▶ Centered around hands-on learning and step-by-step problem-solving; and
- ▶ Focused on listening and comprehension.

In addition, the Extended General Chemistry course assists with decreasing student “test anxiety,” because students are in class more frequently to encourage consistent study habits. Student who have participated in this course model have said:

- ▶ “Chemistry is now my favorite subject.”
- ▶ “The smaller recitation periods are a big help because you can ask a lot of questions and have them answered in detail.”

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- ▶ “Without the Solid GEMS Chemistry Program, my success never would have happened.”
- ▶ “We would like a Solid GEMS Organic Chemistry sequence course.”

## DEGREE PROGRAMS

The school offers numerous degree programs that prepare students for exciting and diverse career opportunities. The following majors are available to students who matriculate at School of Environmental and Biological Sciences. Minors and certificate programs as well as double majors and joint degree programs are also available.

### Agriculture and Food Systems

#### Animal Science

Preveterinary Medicine and Research  
Laboratory Animal Science  
Equine Science  
Production Animal Science  
Companion Animal Science

#### Biochemistry

Biochemistry of Microbial Systems  
Biochemical Toxicology  
Biochemistry of Plant Systems  
Protein and Structural Biochemistry

#### Bioenvironmental Engineering (5-year B.S./B.S. Program)

### Biological Sciences

#### Biotechnology

Animal Biotechnology  
Bioinformatics  
Bioscience Policy and Management  
General Biotechnology  
Microbial Biotechnology  
Plant Biotechnology

### Ecology, Evolution and Natural Resources

#### Environmental and Business Economics

Business Economics  
Environmental and Natural Resource Economics  
Food Industry Economics  
Food Science and Management Economics

#### Environmental Planning & Design

Environmental Geomatics  
Landscape Planning  
Landscape Industry  
Urban Forestry

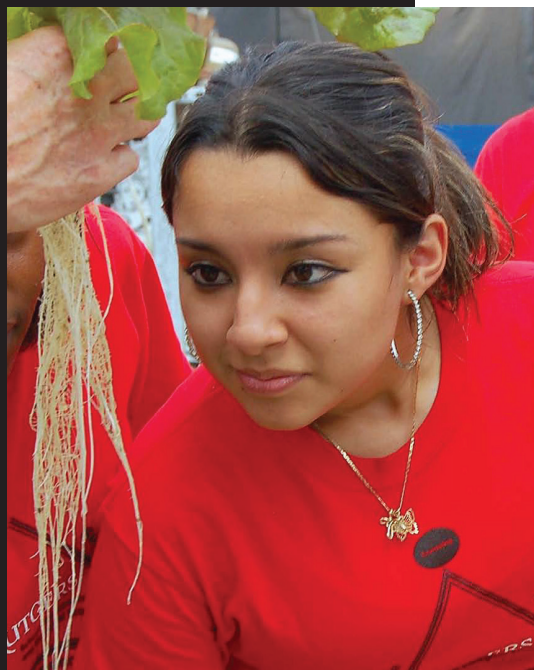
#### Environmental Policy, Institutions, and Behavior

#### Environmental Sciences

Applied Environmental Science  
Environmental Health  
Environmental Science

#### Exercise Science and Sports Studies

Applied Kinesiology  
Exercise Physiology  
Exercise Science  
Sport Management









## **Food Science**

Food Science Research  
Food Science and Management Economics  
General Food Science

## **Landscape Architecture**

## **Marine Sciences**

Marine Biology/Biological Oceanography  
Marine Chemistry  
Marine Geology  
Physical Oceanography  
Directed Marine Studies

## **Meteorology**

## **Microbiology**

## **Nutritional Sciences**

Community Nutrition  
Dietetics  
Food Service Administration Nutrition  
Nutrition, Food and Business

## **Plant Biology**

General Plant Biology  
Horticulture and Turf Industry  
Horticulture Therapy Specialization

## **Public Health**

## **HELPFUL WEBSITES**

SEBS Office of Academic Programs .....	<a href="http://sebs.rutgers.edu">sebs.rutgers.edu</a>
Admissions (Undergraduate) .....	<a href="http://admissions.rutgers.edu">admissions.rutgers.edu</a>
Athletics .....	<a href="http://scarletknights.com">scarletknights.com</a>
Career Services .....	<a href="http://careerservices.rutgers.edu">careerservices.rutgers.edu</a>
Catalog.....	<a href="http://rutgers.edu/academics/catalogs">rutgers.edu/academics/catalogs</a>
Computing Services .....	<a href="http://nbcs.rutgers.edu/newstudent">nbcs.rutgers.edu/newstudent</a>
Dining Services .....	<a href="http://food.rutgers.edu">food.rutgers.edu</a>
Directions to and on Campus .....	<a href="http://rumaps.rutgers.edu">rumaps.rutgers.edu</a>
Disability Services .....	<a href="http://disabilityservices.rutgers.edu">disabilityservices.rutgers.edu</a>
Douglass Residential College for Women.....	<a href="http://douglass.rutgers.edu">douglass.rutgers.edu</a>
Financial Aid .....	<a href="http://studentaid.rutgers.edu">studentaid.rutgers.edu</a>
Health Services—Counseling (CAPS) .....	<a href="http://rhscaps.rutgers.edu">rhscaps.rutgers.edu</a>
Health Services—Medical .....	<a href="http://health.rutgers.edu">health.rutgers.edu</a>
Housing and Residence Life .....	<a href="http://ruoncampus.rutgers.edu">ruoncampus.rutgers.edu</a>
International Student Services .....	<a href="http://internationalservices.rutgers.edu">internationalservices.rutgers.edu</a>
Learning Centers .....	<a href="http://rlc.rutgers.edu">rlc.rutgers.edu</a>





Learning Communities .....	<a href="http://rulc.rutgers.edu">rulc.rutgers.edu</a>
Libraries.....	<a href="http://libraries.rutgers.edu">libraries.rutgers.edu</a>
Math and Science Learning Center .....	<a href="http://mslc.rutgers.edu">mslc.rutgers.edu</a>
Parking.....	<a href="http://rudots.rutgers.edu">rudots.rutgers.edu</a>
Placement Tests .....	<a href="http://oirap.rutgers.edu/testplace.html">oirap.rutgers.edu/testplace.html</a>
Public Safety .....	<a href="http://aps.rutgers.edu">aps.rutgers.edu</a>
Recreation & Community Development .....	<a href="http://recreation.rutgers.edu">recreation.rutgers.edu</a>
RUconnection ID cards .....	<a href="http://ruconnection.rutgers.edu">ruconnection.rutgers.edu</a>
RU Express .....	<a href="http://food.rutgers.edu/ru-express">food.rutgers.edu/ru-express</a>
RU-info .....	<a href="http://ruinfo.rutgers.edu">ruinfo.rutgers.edu</a>
Scholarships .....	<a href="http://sebs.rutgers.edu/sfa">sebs.rutgers.edu/sfa</a>
SEBS International Programs.....	<a href="http://sebs.rutgers.edu/international">sebs.rutgers.edu/international</a>
SPIN .....	<a href="http://sebsspin.rutgers.edu">sebsspin.rutgers.edu</a>
Student Accounting (Payments) .....	<a href="http://studentabc.rutgers.edu">studentabc.rutgers.edu</a>
Student Life .....	<a href="http://getinvolved.rutgers.edu">getinvolved.rutgers.edu</a>
Undergraduate Education .....	<a href="http://undergraduate.rutgers.edu">undergraduate.rutgers.edu</a>
Undergraduate Research .....	<a href="http://aresty.rutgers.edu">aresty.rutgers.edu</a>
Veterans Services.....	<a href="http://veteransaffairs.rutgers.edu">veteransaffairs.rutgers.edu</a>
Writing Programs .....	<a href="http://wp.rutgers.edu">wp.rutgers.edu</a>

**[access.rutgers.edu/sebs-eof](http://access.rutgers.edu/sebs-eof)**





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