The master’s program provides training in the new interdisciplinary field of computational and integrative biology. The program offers course work and hands-on research experience for best understanding key concepts in biological chemistry, biomathematics, computer science, biophysics, and integrative biology. The program teaches students how to apply quantitative approaches to biological research, critically analyze scientific literature in the field, and skillfully communicate scientific ideas and research results. Graduates are qualified for research careers in biology, the pharmaceutical industry, or for entering a doctoral program. Some graduates continue on into the Rutgers University–Camden Ph.D. program in computational and integrative biology.

ADMISSIONS REQUIREMENTS
• Online application (gradstudy.rutgers.edu/apply/overview)
• A transcript showing the completion of an undergraduate degree in one of the natural sciences, mathematics, computer science, or engineering
• Three letters of reference
• Personal statement
• GRE scores (General Test required; Subject Test recommended)
• TOEFL scores are required of all foreign students having English as a second language

FUNDING OPPORTUNITIES
The Graduate School offers competitive funding opportunities in the form of fellowships, scholarships, and tuition remission awards. These awards are determined by the graduate department’s admissions committee and do not require an additional application. The computational and integrative biology program awards several teaching assistant and graduate assistant positions each year, and awards are determined by the department’s admissions committee. No additional application is necessary to be considered for these positions.

DEGREE REQUIREMENTS
On the basis of the entrance assessment, the admission committee will determine a course of study for the individual to take in the two years of graduate studies. The M.S. degree will require a minimum of 30 credits from essentials and elective courses.

• Required course, master’s project (four credits)
• Essentials courses (maximum of 12 credits)
• In consultation with the advisory committee, student will select appropriate elective courses consistent with his/her interests, needs, and goals.
• A comprehensive exam which will include an oral defense of the master’s project as well as oral and/or written responses to questions testing the breadth of knowledge in the area of study.

CONCENTRATIONS
• Biological rhythms (circadian and ultradian)
• Biofuels and sustainable energy
• Predictive toxicology and pharmacology
• Metagenomics
• Systems biology and biomathematics
FACULTY AND RESEARCH AREA

• Joseph V. Martin (Ph.D., University of Southern California) professor; director, Center for Computational and Integrative Biology | hormone actions at neurotransmitter receptors, electroencephalographically-defined sleep and waking, computational models

• Benedetto Piccoli (Ph.D., International School for Advanced Studies, Italy) Joseph and Loretta Lopez Chair Professor; program director, Center for Computational and Integrative Biology | control and optimization of network flows, systems biology, animal groups

The faculty associated with the computational and integrative biology program is comprised of an extensive, interdisciplinary group of scholars from the fields of psychology, computer science, mathematics, physics, chemistry, and biology. Please refer to the program’s website for a complete listing.

PROGRAM HIGHLIGHTS

The Center for Computational and Integrative Biology seminar series offers interesting presentations related to research in computational and integrative biology. The presentations reflect the types of collaborative research being done at the center and provide an opportunity to come together as a community for informal discussions and conversation.

Website: ccib.camden.rutgers.edu/graduate-program

Graduate Director Contact Info
Dr. Benedetto Piccoli
856-225-6356
piccoli@camden.rutgers.edu