

# Fall 2024 Undergraduate Program Director (UPD) Report

Isabella Pena - 12/15/2024 11:28:01 AM -05:00

## Received

Date:

By:

Comment:

## Instructions

This is a form for SEBS Governing Council major representatives. The purpose of this form is to encourage student engagement with faculty/department representatives and to identify academic issues that may be addressed by the council.

1. Talk to students in your major, ask around if there are any current academic issues (ex: class conflicts within the major, issues with professors or department, lack of resources).
2. Look at Degree Navigator, write down the course requirements
3. Formulate a list of things you would like to know about the program (corporate connections with the university, current research projects, opportunities for students to get involved, recent changes to the program)
4. Email Undergraduate Program Director and Arrange Appointment
5. Fill out this form and submit by 11:59pm on November 17th, 2024.

n/a

## General Information

Your Name

Isabella Pena

Your Email

imp65@scarletmail.rutgers.edu

Represented Major

Biochemistry

Date of Meeting with UPD

12/4/2024

Class Year

2026

UPD Name

Dr Lori White

UPD Email

lori.white@rutgers.edu

Major/Departmental Website Link (if applicable)

<https://dbm.rutgers.edu/biochemistry/>

## Major Information

Major Options -- What options are offered within the major? How do they differ?

The Biochemistry major at Rutgers offers options like SEBS Core Biochemistry, focused on broad applications, and the MBB program, which is research-based. Students can also specialize in areas like plant biochemistry, toxicology, and genomics. Honors tracks include advanced coursework and research projects.

Total Number of Students within the Major (estimate if unknown from UPD)

About 170 students are currently enrolled in the Biochemistry major at Rutgers.

Goals within the Major -- What are expectations of students post-graduation?

Graduates often attend medical, dental, or pharmacy school, pursue research careers, or work in industries like biotechnology and pharmaceuticals.

List Upper-Level major courses -- What is the goal of each course?

Biochemistry major courses include topics like cell biology, virology, systems physiology, and molecular biology. These courses aim to build strong foundations in science, critical thinking, and research skills for careers in medicine, research, or biotechnology. These include: 01:146:270 - Fundamentals of Cell and Developmental Biology 01:146:340 - Virology 01:146:356 - Systems Physiology 01:146:445 - Synapses, Neurons, and Circuits 01:146:447 - Clinical Neurobiology 01:146:478 - Molecular Biology 01:447:392 - Pathogenic Microbiology 01:694:412 - Proteomics & Functional Genomics 01:694:413 - Chromatin and Epigenomics 11:067:300 - Integrative Physiology 11:067:450 - Endocrinology 11:067:490 - Pathophysiology 11:067:491 - Reproductive and Developmental Toxicology 11:067:492 - Molecular and Cellular Physiology 11:115:421 - Biochemistry of Cancer 11:115:422 - Biochemical Mechanisms of Toxicology 11:115:423 - Fundamentals of Genomics 11:115:485 - Advanced Methods for 3-D Structure Determination of Biomolecules 11:126:407 - Comparative Virology 11:126:481 - Molecular Genetics 11:400:423 - Food Microbiology 11:680:390 - General Microbiology 11:680:475 - Microbiomes and Health 11:680:480 - Microbial Genetics and Genomics 11:680:481 - Microbial Physiology 11:709:400 - Advanced Nutrition: Macronutrients 11:709:401 - Advanced Nutrition: Energy and Micronutrients 11:776:202 - Applied Physiology of Horticultural Crops 11:776:302 - General Plant Pathology 11:776:305 - Plant Genetics 11:776:312 - Medicinal Plants 11:776:382 - Plant Physiology 11:776:390 - Hemp and Medical Cannabis 11:776:415 - Fungi and Human Health 11:776:438 - Plants and Human Health

## Student Issues

Are there concerns with classes within the major? Are there any suggestions for solutions to these concerns?

Students face issues like limited resources and space in required lab courses, such as Experimental Biochemistry. Juniors often struggle to register due to course waves, and the fall-spring lab sequence requirement adds challenges.

From the perspective of the UPD or other major faculty members, what can currently be improved upon in the major or department? Are there any suggestions for solutions to these issues?

More funding, faculty, and lab space are needed to address student concerns. A better scheduling system and increased flexibility in course registration could also help.

Are there any Visitor Events/Talks/Seminars/etc. going on within the major?

The Biochem/Micro Club hosts events on joining research labs. Weekly seminars and AG Field Day also provide opportunities for student engagement and learning.

Suggestions for students in this major (ex: organizations to join, news to pay attention to)

It's easier to take a harder class at a community college. If you're a transfer please take organic chemistry before you come into the major. Talk to your advisor and use every resource available to you. Learning centers, form study groups, go to office hours. Get in a lab and gain experience,

Changes within the major for the upcoming year

No major changes are planned, though work on a biochemistry minor may begin soon.

Any other suggestions, comments, concerns?

n/a