

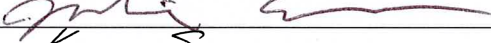
 <b>FLORIDA ATLANTIC UNIVERSITY</b>	<b>NEW/CHANGE PROGRAM REQUEST</b> <b>Undergraduate Programs</b>		UUPC Approval <u>4/29/24</u> UFS Approval _____ Banner _____ Catalog _____
	Department <sup>N/A</sup> College Wilkes Honors College		
<b>Program Name</b> Biological Chemistry	<input type="checkbox"/> <b>New Program*</b> <input checked="" type="checkbox"/> <b>Change Program*</b>	<b>Effective Date</b> (TERM & YEAR) Spring 2025	
<p><b>Please explain the requested change(s) and offer rationale below or on an attachment.</b></p> <p>Add Honors College Physics I (PHY 2053) as an alternative to Honors General Physics I (PHY 2048) in the required classes list, and clarify physics labs I and II (PHY 2048L and PHY2049L) requirement.</p> <p>Add BSC 4930 Honors Evolution of Human Behavior to list of biology electives.</p> <p>Add CHM 4933 Honors Advanced Chemical Synthesis to list of chemistry electives.</p>			
<p><small>*All new programs and changes to existing programs must be accompanied by a catalog entry showing the new or proposed changes.</small></p>			
<b>Faculty Contact/Email/Phone</b> Chitra Chandrasekhar/cchandr1@fau.edu/561-331-4852		<b>Consult and list departments that may be affected by the change(s) and attach documentation</b>	
<b>Approved by</b>		<b>Date</b>	
Department Chair <u></u>		<u>4/5/24</u>	
College Curriculum Chair <u></u>		<u>4/5/24</u>	
College Dean <u></u>		<u>4/9/24</u>	
UUPC Chair <u>Korey Sorge</u>		<u>4/29/24</u>	
Undergraduate Studies Dean <u>Dan Meeroff</u>		<u>4/29/24</u>	
UFS President _____		_____	
Provost _____		_____	

Email this form and attachments to [mjenning@fau.edu](mailto:mjenning@fau.edu) seven business days before the UUPC meeting.

# CONCENTRATION IN BIOLOGICAL CHEMISTRY

Students must earn a "C" or better in each course taken to fulfill a concentration requirement.

## Overview

The biological chemistry concentration is designed for those students who wish to go on to graduate school, medical school, or who desire to work for biotech firms, government agencies or environmental organizations. It strongly emphasizes complementary coursework from both the biology and chemistry disciplines. To promote the interconnectedness of these disciplines, students choosing a research advisor in one discipline are strongly encouraged to have their second reader from the other discipline. Our interdisciplinary curriculum will benefit students who choose to pursue graduate studies in biology,

## Electives:

Electives are shown below. Students concentrating in Biological Chemistry must take at least four electives totaling at least 12 credits. Two of these electives must be from Biology and two must be from Chemistry. Both Biology electives should have a molecular component. At least one of the chemistry electives must be a course with a lab. Other FAU courses may be counted only with the prior approval of the Concentration Advisor. Students are reminded that they need 45 upper-level (3000 or 4000-level) credits to graduate. Electives should be chosen to complement post-undergraduate plans.

## Courses

### CONCENTRATION IN BIOLOGICAL CHEMISTRY

Course #	Course Name	Credits
BSC 1010, 1010L	Honors Biological Principles with Lab	4
BSC 1011, 1011L	Honors Biodiversity with Lab	4

<b>Course #</b>	<b>Course Name</b>	<b>Credits</b>
PCB 3063	Honors Genetics	4
PCB 4102	Honors Cell Biology	4
CHM 2045, 2045L	Honors General Chemistry I with Lab	4
CHM 2046, 2046L	Honors General Chemistry II with Lab	4
CHM 2210, 2204L	Honors Organic Chemistry I with Lab	4
CHM 2211, 2205L	Honors Organic Chemistry II with Lab	4
BCH 3033, 3033L	Honors Biochemistry with Lab	4
STA 2023	Honors Introductory Statistics	3
MAC 2311	Honors Calculus I	4
MAC 2312*	Honors Calculus II	4
<del>PHY 2048, 2048L</del> <b>PHY 2048</b>	<del>Honors General Physics I with Lab</del> <b>Honors General Physics I</b>	5
<b><u>or</u> PHY 2053</b>	<b><u>or</u> Honors College Physics I</b>	
<b>PHY 2048L</b>	<b>Honors General Physics I Lab</b>	
<del>PHY 2049, 2049L</del>	<del>Honors General Physics II with Lab</del>	5
<del>or</del> PHY 2054	<del>or</del> College Physics 2	
<b>PHY 2049</b>	<b>Honors General Physics II</b>	

Course #	Course Name	Credits
<u>or</u> PHY 2054	<u>or</u> Honors College Physics II	
PHY 2049L	Honors General Physics II Lab	
	4 Electives; 2 in Biology and 2 in Chemistry, with at least one chemistry lab.	13
IDS 4970	Honors Thesis (two semesters)	6
	Total Credits	72-76

\* MAC 2312 only required if taking PHY 2049

#### BIOLOGY ELECTIVES\*

At least 1 biology elective to be taken at the Wilkes Honors College. Both Biology electives should have a molecular component.

<b>Course #</b>	<b>Course Name</b>	<b>Credits</b>
MCB 3020, 3020L*	Honors Microbiology with Lab	4
PCB 4024	Honors Molecular Cell Biology	3
BSC 4403L	Honors Biotechnology Lab	2
BSC 4930	Honors Immunology	3
BSC 4930	Honors Intro to Drug Development	3
BSC 4930	Honors Intro to Structural Molecular Biology	2
BSC 4930	Honors Molecular Pharmacology	3
ZOO 4742	Honors Principles of Human Neuroanatomy	3
PCB 4253	Honors Developmental Biology	3
BSC 4930	Honors Endocrinology	3
PCB 4234	Honors Biology of Cancer	3
PSB 3441	Honors Drug and Behavior	3
PSB 4243	Honors Neuroscience of Addiction	3
BSC 4022	Molecular Genetics of Aging	3
MCB 4203	Medical Bacteriology	3
MCB 4503	Virology	3
PCB 4233	Immunology	3

PCB 4522	Molecular Genetics	3
PCB 4594	Genes and Development	3
PCB 4832C	Neurophysiology	3
PCB 4842	Cellular Neuroscience and Disease	3

**BSC 4930**

**Honors Evolution of Human Behavior**

*Note: Students in the Max Planck Honors Program may count Introduction to Neuroscience Research (PSB 4003, 1 credit) and two distinct MPHP Enrichment courses (1 credit each) as their 3 credit, Biology elective.*

CHEMISTRY ELECTIVES\*

<b>Course #</b>	<b>Course Name</b>	<b>Credits</b>
CHM 3085	Honors Environmental Chemistry	3
CHM 3121, 3121L	Honors Quantitative Analysis with Lab	4
CHM 3290	Honors Chemistry of Natural Products	3
CHM 3400	Honors Introduction to Physical Chemistry	3
CHM 4135, 4135L	Honors Instrumental Methods of Analysis with Lab	4
CHM 4231	Honors Spectroscopy	3
CHM 4473	Honors Quantum Chemistry	3
CHM 3609, CHM 3609L	Honors Inorganic Chemistry with Lab	4
CHM 4905	Honors Directed Independent Study in Chemistry	1-4
CHM 4915	Honors Directed Independent Research in Chemistry	1-3
<b>CHM 4933</b>	<b>Honors Advanced Chemical Synthesis</b>	

*\* At least one chemistry elective must be a course with a lab. Special Topics in Biology (BSC 4930) or Chemistry (CHM 4933) may be used to fulfill the Biology and Chemistry electives upon approval of the Biological Chemistry advisory board.*