
 FLORIDA ATLANTIC UNIVERSITY	NEW/CHANGE PROGRAM REQUEST Undergraduate Programs		UUPC Approval _____ UFS Approval _____ Banner Posted _____ Catalog _____
	Department N/A College Wilkes Honors College		
Program Name Concentration in Biological Chemistry		<input type="checkbox"/> New Program <input checked="" type="checkbox"/> Change Program	Effective Date (TERM & YEAR) Fall 2021
Please explain the requested change(s) and offer rationale below or on an attachment 1) Add BSC 1011/L Honors Biodiversity+Lab as the required course for this concentration 2) Replace BSC 4915/CHM 4915 (3 cr) and BSC 4970/CHM 4970 (3 cr) with IDS 4970 Honors Thesis (6 cr total) 3) Say "PHY 2049 or PHY 2054" to give students an option to take Physics 2 course without taking Calculus 2, and make MAC 2312 Honors Calculus 2 optional 4) Remove BSC 4402L H Fluorescence Microscopy Lab from the Biology Electives 5) Add the following Honors College courses to the Biology Electives: PSB 3441 H Drugs and Behavior (3 cr), PSB 4243 H Neuroscience of Addiction (3 cr) 6) Add the following College of Science courses to the Biology Electives: BSC 4022 Molecular Genetics of Aging, MCB 4203 Medical Bacteriology, MCB 4503 Virology, PCB 4233 Immunology, PCB 4522 Molecular Genetics, PCB 4594 Genes and Development, PCB 4832C RI: Neurophysiology, PCB 4842 Cellular Neuroscience and Disease 7) Add the sentence that "At least 1 biology elective to be taken at the WHC" 8) Add CHM 4915 and CHM 4905 to Chemistry Electives 9) The total of Electives required is 13 credits 10) The total number of credits for this concentration is 72-76 credits (depending on students taking Calc 2 or not)			
Faculty Contact/Email/Phone Chitra Chandrasekhar cchandr1@fau.edu 561-331-4852		Consult and list departments that may be affected by the change(s) and attach documentation	
Approved by Department Chair _____ College Curriculum Chair _____ College Dean _____ UUPC Chair _____ Undergraduate Studies Dean _____ UFS President _____ Provost _____		William O'Brien  <small>Digitally signed by William O'Brien DN: cn=William O'Brien, o=Florida Atlantic University, ou=Wilkes Honors College, email=woobrien@fau.edu, c=US Date: 2021.04.20 16:31:17 -0400</small>	Date 4/20/21 4/19.2021 4/20/21 _____ _____ _____

Email this form and attachments to mjenning@fau.edu one week before the UUPC meeting so that materials may be viewed on the UUPC website prior to the meeting.



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CONCENTRATION IN BIOLOGICAL CHEMISTRY

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,

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chemistry, or biochemistry.

Advisory Board:

Dr. Chitra Chandrasekhar (mailto:cchand1@fau.edu?subject=Biological%20Chemistry%20major)

Dr. Veljko Dragojlovic (mailto:vdragoj1@fau.edu?subject=Biological%20Chemistry%20major)

Dr. Gregory Macleod (mailto:macleodg@fau.edu?subject=Biological%20Chemistry)

Dr. Eugene Smith (mailto:esmith@fau.edu?subject=Biological%20Chemistry)

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. 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 compliment post-undergraduate plans.

Courses

CONCENTRATION IN BIOLOGICAL CHEMISTRY

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

ADD:

BSC 1011, 1011L
+ Honors Biodiversity
with Lab (4 cr)

MAC 2311*	Honors Calculus I	4
MAC 2312 **	Honors Calculus II	4
PHY 2048, 2048L	Honors General Physics I with Lab	5
PHY 2049, 2049L or PHY 2054	Honors General Physics II with Lab ^{or} College Physics 2 + Lab	5
	4 Electives; 2 in Biology and 2 in Chemistry, with at least one chemistry lab.	12 13
BSC 4915/ CHM 4912 or 4914	Honors Research in Biology/Chemistry	3
BSC 4970/ CHM 4970 IDS 4970	Honors Thesis in Biology/Chemistry	3 / 6
	Total Credits	71 72-76

* May be counted toward HC Core requirements as well

** ~~Change from previous version approved 9/10/2010~~

** MAC 2312 only required if taking PHY 2049

See also the Biological Chemistry flowchart.
(<http://www.fau.edu/honors/documents/academics-majors-biochem-flochart.pdf>)

BIOLOGY ELECTIVES* *At least 1 biology elective to be taken at the WTC.*

Course #	Course Name	Credits
MCB 3020, 3020L*	Honors Microbiology with Lab	4
PCB 4024	Honors Molecular Cell Biology	3
BSC 4402L <i>Remove</i>	Honors Fluorescence Microscopy Lab	1
BSC 4403L	Honors Biotechnology Lab	2
BSC 4930	Honors Immunology	3
BSC 4930	Honors Intro to Structural Molecular Biology	2

ADD:

PSB 3441 Honors Drug
and Behavior (3cr)

PSB 4243 Honors Neuroscien
of Addiction (3cr)

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

ADD:
 BSC 4022 Molecular Genetics of Aging
 MCB 4203 Medical Bacteriology
 MCB 4503 Virology
 PCB 4233 Immunology
 PCB 4522 Molecular Genetics
 PCB 4594 Genes and Development
 PCB 4832C Neurophysiology
 PCB 4842 Cellular Neurosc. and Disease

CHEMISTRY ELECTIVES*

Course #	Course Name	Credits
CHM 3085	Honors Environmental Chemistry	3
CHM 3121, 3121L	Honors Quantitative Analysis with Lab	4
CHM 3292	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

ADD:
 CHM 4915 Honors DIR in Chemistry (1-3 cr)
 CHM 4905 Honors DIS in Chemistry (1-4 cr)

* 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.