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Viewing: **CHEMBA-BIOC : Chemistry:****Biochemistry Concentration**

Last approved: 03/30/18 3:41 pm

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Changes proposed by: rcc003

Catalog Pages Using

this Program

[Chemistry B.A. with Biochemistry Option](#)[Chemistry and Biochemistry \(CHBC\)](#)

Submitter: 575-6731 User ID: crsleaf1 Phone:

Program Status Active

Academic Level Undergraduate

Type of proposal Major/Field of Study

Select a reason for this modification

Making Minor Changes to an Existing Degree (e.g. changing 15 or fewer hours, changing admission/graduation requirements, adding Focused Study)

Are you adding a concentration?

No

Are you adding a track?

No

Are you adding a focused study?

No

Effective Catalog Year Fall 2019

College/School Code

Fulbright College of Arts and Sciences (ARSC)

Department Code

In Workflow

1. ARSC Dean Initial
2. Director of Program Assessment and Review
3. Registrar Initial
4. Institutional Research
5. CHBC Chair
6. ARSC Curriculum Committee
7. ARSC Dean
8. Global Campus
9. Provost Review
10. University Course and Program Committee
11. Faculty Senate
12. Provost Final
13. Provost's Office-- Notification of Approval
14. Registrar Final
15. Catalog Editor Final

Approval Path

1. 06/14/18 2:21 pm
Jeannine Durdik (jduardik): Approved for ARSC Dean Initial
2. 06/19/18 8:20 am
Alice Griffin (agriffin): Approved for Director of Program

Department of Chemistry and Biochemistry(CHBC)

Program Code CHEMBA-BIOC
Degree Bachelor of Arts
CIP Code

- Assessment and Review
3. 06/26/18 2:49 pm
Karen Turner
(kvestal): Approved for Registrar Initial
 4. 06/26/18 2:59 pm
Gary Gunderman
(ggunderm): Approved for Institutional Research
 5. 10/11/18 2:43 pm
Wesley Stites
(wstites): Approved for CHBC Chair
 6. 10/15/18 12:58 pm
Pearl Dowe
(pkford): Approved for ARSC Curriculum Committee
 7. 10/15/18 2:07 pm
Jeannine Durdik
(jdurdik): Approved for ARSC Dean
 8. 10/15/18 3:33 pm
Miran Kang (kang): Approved for Global Campus
 9. 10/16/18 9:48 am
Terry Martin
(tmartin): Approved for Provost Review
 10. 10/29/18 10:14 am
Alice Griffin
(agriffin): Approved for University Course and Program Committee

History

1. Aug 15, 2014 by
Leepfrog
Administrator
(clhelp)
2. Apr 1, 2015 by
Charlie Alison
(calison)
3. May 25, 2017 by
Lisa Kulczak (lkulcza)
4. Mar 30, 2018 by
Gina Daugherty
(gdaugher)

40.0501 - Chemistry, General.

Program Title

Chemistry: Biochemistry Concentration

Program Delivery

Method

On Campus

Is this program interdisciplinary?

No

Does this proposal impact any courses from another College/School?

No

What are the total hours needed to complete the program?
na

Program Requirements and Description

Requirements

Requirements for a B.A. degree with a Major in Chemistry with Biochemistry Concentration

In addition to the University Core requirements and the Fulbright College of Arts and Sciences Graduation Requirements (see College Academic Regulations and Degree Completion Policy), the following course requirements must be met. Bolded courses from the list below may be applied to portions of the University Core requirements.

A minimum of 32 semester hours in chemistry including:

Select one of the following:

8

CHEM 1203 Chemistry for Majors I

& **CHEM 1201L** and Chemistry for Majors I Laboratory

& **CHEM 1223** and Chemistry for Majors II

& **CHEM 1221L** and Chemistry for Majors II Laboratory

CHEM 1103 University Chemistry I (ACTS Equivalency = CHEM 1414 Lecture) (CHEM 1101L, CHEM 1123, CHEM 1121L)

CHEM 2263 Analytical Chemistry Lecture

4

& **CHEM 2261L** and Analytical Chemistry Laboratory

Select one of the following:

4-

10

CHEM 3453 Elements of Physical Chemistry

& **CHEM 3451L** and Elements of Physical Chemistry Laboratory

CHEM 3504 Physical Chemistry I

& **CHEM 3514** and Physical Chemistry II

& **CHEM 3512L** and Physical Chemistry Laboratory

Select one of the following:

8

CHEM 3603 Organic Chemistry I

& **CHEM 3601L** and Organic Chemistry I Laboratory

& **CHEM 3613** and Organic Chemistry II

& **CHEM 3611L** and Organic Chemistry II Laboratory

CHEM 3703 Organic Chemistry I Lecture for Chemistry Majors

& **CHEM 3702L** and Organic Chemistry I Lab for Chemistry Majors

& **CHEM 3713** and Organic Chemistry II Lecture for Chemistry Majors

& **CHEM 3712L** and Organic Chemistry II Lab for Chemistry Majors

Select one of the following:

3

CHEM 4853 Biochemical Techniques

Or completion of a senior thesis based on independent research wherein at least 1 credit hour is earned in **CHEM 400V** (chemistry research) and/or **CHEM 400VH** (honors chemistry research) during each of 3 different semesters.

Select one of the following:

6-7

CHEM 5813-5843 (same as **CHEM 4813H-4843H**)

CHEM 3813 Elements of Biochemistry

& **CHEM 4213** and Instrumental Analysis

& **CHEM 4211L** and Instrumental Analysis Laboratory

CHEM 3813	Elements of Biochemistry	
& CHEM 4123	and Advanced Inorganic Chemistry I	
CHEM 3813	Elements of Biochemistry	
& CHEM 4723	and Experimental Methods in Organic Chemistry	
MATH 2554	Calculus I (ACTS Equivalency = MATH 2405)	4
or MATH 2043	Survey of Calculus (ACTS Equivalency = MATH 2203)	
Select one of the following:		8
PHYS 2013	College Physics I (ACTS Equivalency = PHYS 2014 Lecture)	
& PHYS 2011L	and College Physics I Laboratory (ACTS Equivalency = PHYS 2014 Lab)	
& PHYS 2033	and College Physics II (ACTS Equivalency = PHYS 2024 Lecture)	
& PHYS 2031L	and College Physics II Laboratory (ACTS Equivalency = PHYS 2024 Lab)	
PHYS 2054 / PHYS 2074		
Four courses from the Biological Sciences (at least 3 hours of which must be upper-level courses)		11
Completion of a World Language Course at the 2003 Intermediate I Level.		
Total Hours		56-
		63

The mathematics and physics courses are prerequisites for some advanced courses and should be scheduled early in the student's program.

8-Semester Plan

Chemistry B.A. with Biochemistry Option

Eight-Semester Degree Program

Students wishing to follow the eight-semester degree plan should see the [Eight-Semester Degree Policy](#) in the Academic Regulations chapter for university requirements of the program. The following eight-semester plan refers to additional B.A. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.

First Year	Units
	Fall Spring
ENGL 1013 Composition I (ACTS Equivalency = ENGL 1013)	3
MATH 2554 Calculus I (ACTS Equivalency = MATH 2405) (or other mathematics course as advised for major) ^{1,3}	3-4
Select one of the following:	4
CHEM 1203 Chemistry for Majors I	
& CHEM 1201L Chemistry for Majors I Laboratory	
CHEM 1103 University Chemistry I (ACTS Equivalency = CHEM 1414 Lecture)	
& CHEM 1101L University Chemistry I Laboratory (ACTS Equivalency = CHEM 1414 Lab)	
Elementary II World Language Course Numbered 1013	3
University/State Core US History requirement	2

University/State Core US History requirement	3
ENGL 1023 Composition II (ACTS Equivalency = ENGL 1023)	3
MATH 2564 Calculus II (ACTS Equivalency = MATH 2505)1,3	4
Select one of the following:	4
CHEM 1223 Chemistry for Majors II & CHEM 1221L Chemistry for Majors II Laboratory	
CHEM 1123 University Chemistry II (ACTS Equivalency = CHEM 1424 Lecture) & CHEM 1121L University Chemistry II Laboratory (ACTS Equivalency = CHEM 1424 Lab)	
Intermediate I World Language Course Numbered 2003	3
University/State Core Social Science requirement	3
Year Total:	17 17
 Second Year	 Units
	Fall Spring
BIOL 1543 Principles of Biology (ACTS Equivalency = BIOL 1014 Lecture) & BIOL 1541L Principles of Biology Laboratory (ACTS Equivalency = BIOL 1014 Lab)	4
Select one of the following:	4
PHYS 2054 University Physics I (ACTS Equivalency = PHYS 2034)1 PHYS 2013 College Physics I (ACTS Equivalency = PHYS 2014 Lecture) & PHYS 2011L College Physics I Laboratory (ACTS Equivalency = PHYS 2014 Lab)1	
Advanced Elective1	3
University/State Core Fine Arts or Humanities requirement	3
University/State Core Social Science requirement	3
CHEM 2263 Analytical Chemistry Lecture & CHEM 2261L Analytical Chemistry Laboratory1	4
Select one of the following:	4
PHYS 2074 University Physics II (ACTS Equivalency = PHYS 2044 Lecture)1 PHYS 2033 College Physics II (ACTS Equivalency = PHYS 2024 Lecture) & PHYS 2031L College Physics II Laboratory (ACTS Equivalency = PHYS 2024 Lab)1	
Biology Elective	3
University/State Core Humanities or Fine Arts requirement (as needed)	3
University/State Core Social Science requirement	3
Year Total:	17 17
 Third Year	 Units
	Fall Spring
CHEM 3703 Organic Chemistry I Lecture for Chemistry Majors & CHEM 3702L Organic Chemistry I Lab for Chemistry Majors1,2	5
Select one of the following:	4
CHEM 3453 Elements of Physical Chemistry & CHEM 3451L Elements of Physical Chemistry Laboratory1,2	

CHEM 3504 Physical Chemistry I		
Upper Level Biology Elective1,2		4
General Electives		3
CHEM 3713 Organic Chemistry II Lecture for Chemistry Majors		5
& CHEM 3712L Organic Chemistry II Lab for Chemistry Majors1,2		
Select one of the following:		6
CHEM 3514 Physical Chemistry II		
& CHEM 3512L Physical Chemistry Laboratory1,2		
CHEM Electives 3000-4000 Level1,2		
General Elective		3
Year Total:		16 14
Fourth Year		Units
		Fall Spring
CHEM 3813 Elements of Biochemistry1,2		3
or CHEM 4813H Honors Biochemistry I		
CHEM 4123 Advanced Inorganic Chemistry I1,2		3
General Electives		6
CHEM 4853 Biochemical Techniques1,2		3
Select one of the following:		3
CHEM 4843H Honors Biochemistry II1,2		
CHEM Elective 3000-4000 Level1,2		
General Electives		4
Year Total:		12 10
Total Units in Sequence:		120
1 Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 131 of this chapter		
2 Meets 24-hour rule (24 hours of 3000-4000 level courses in Fulbright College), in addition to meeting the 40-hour rule. See College Academic Regulations on page 131 of this chapter.		
3 Depending on placement; MATH 2043 Survey of Calculus is another option. Student may also choose to take MATH 1284C Precalculus in Fall Semester Year 1 and MATH 2554 Calculus in Spring Semester Year 1. Another option is to complete MATH 1203 in Fall Semester 1 and MATH 2043 Survey of Calculus in Spring Semester Year 1.		

Are Similar Programs available in the area?

No

Estimated Student Demand for Program NA

Demand for Program

Scheduled Program NA

Review Date

Program Goals and Objectives

Program Goals and Objectives

NA

Learning Outcomes

Learning Outcomes

NA

Description and justification of the request

Description of specific change	Justification for this change
Removed CHEM 498V as an option for the senior thesis.	The course CHEM 498V was deleted but the text remained in the senior thesis description in the program's requirements. Proposing to remove it from the description so degree audits will be accurate.

Upload attachments

Reviewer Comments