Program Change Request

Date Submitted: 09/23/16 1:01 pm

Viewing: **PHYSBS-BIPH : Physics Biophysics Concentration**

Last approved: 05/17/16 1:36 pm

Last edit: 10/04/16 3:56 pm

Changes proposed by: ddraper

In Workflow

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

Approval Path

1. 09/24/16 2:23 pm jdurdik: Approved for ARSC Dean Initial
2. 09/29/16 8:50 am agriffin: Approved for Director of Program Assessment and Review
3. 10/04/16 3:56 pm lkulcza: Approved for Registrar Initial
4. 01/30/17 11:39 am jgeabana: Approved for PHYS Chair
5. 04/12/17 11:43 am

fspiegel: Approved for ARSC Curriculum Committee
6. 04/12/17 11:59 am jdurdik: Approved for ARSC Dean
7. 04/21/17 10:52 am kbible: Approved for Global Campus

History

1. Aug 27, 2014 by crsleaf1
2. Aug 27, 2014 by crsleaf1
3. May 9, 2016 by ddraper
4. May 17, 2016 by lkulcza

Catalog Pages Using this Program	Physics B.S. with Biophysics Concentration Physics (PHYS)

Submitter:	User ID: crsleaf1 Phone: **5916** ~~see below for contact information~~
Academic Level	Undergraduate
Select a reason for the proposed change:	Making Minor Changes to an Existing Degree (e.g. changing 15 or fewer hours, changing admission/graduation requirements, adding Focused Study)
Program Status	Active
Academic Unit	Major/Field of Study

Are you adding, changing or deleting a concentration? **No** ~~Yes~~

Action	Proposed Code	Proposed Name

Are you adding, changing or deleting a track? No

Action	Proposed Code	Proposed Name

Are you adding, changing or deleting a focused study? No

Action	Proposed Code	Proposed Name

Effective Catalog Year	Fall **2017** ~~2016~~
College, School, Division	Fulbright College of Arts and Sciences (ARSC)
Department Code	Department of Physics (PHYS)
Program Code	PHYSBS-BIPH
Degree	Bachelor of Science
CIP Code	40.0801 - Physics, General.
Program Title	Physics Biophysics Concentration
Method of Delivery	On Campus
Is this program interdisciplinary or use courses from another College?	No
Does this change the total hours needed to complete the program?	No

Program Requirements, Description and 8-Semester Plan

Biophysics Concentration

PHYS 4333	Thermal Physics (Sp)	3
13 semester hours numbered 3000 and above in physics, astronomy, biology, and chemistry chosen with the adviser's permission.		13
Total Hours		16

Physics B.S. with Biophysics Concentration

Eight-Semester Degree Plan

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 as well as Fulbright College requirements.

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. Well prepared students may skip BIOL 1543/BIOL 1541L, and go immediately into the biology core courses. Students should consult their advisers.

First Year	**Units**	
	Fall	**Spring**
ENGL 1013 Composition I (ACTS Equivalency = ENGL 1013) (Sp, Su, Fa)	3	
BIOL 2533 Cell Biology (Sp, Fa) & BIOL 2531L Cell Biology Laboratory (Sp, Fa)	4	
MATH 2554 Calculus I (ACTS Equivalency = MATH 2405) (Sp, Su, Fa)[1]	4	
PHYS 2054 University Physics I (ACTS Equivalency = PHYS 2034) (Sp, Su, Fa)[1]	4	
ENGL 1023 Composition II (ACTS Equivalency = ENGL 1023) (Sp, Su, Fa)		3
MATH 2564 Calculus II (ACTS Equivalency = MATH 2505) (Sp, Su, Fa)[1]		4
BIOL 2323 General Genetics (Sp, Fa) (Highly recommended; serves as a prerequisite to many upper-level BIOL courses.)		3
PHYS 2074 University Physics II (ACTS Equivalency = PHYS 2044 Lecture) (Sp, Su, Fa)[1]		4
University/State Core Fine Arts or Humanities		3
Year Total:	15	17

Second Year	**Units**	
	Fall	**Spring**
PHYS 2094 University Physics III (Fa)[1]	4	
MATH 2574 Calculus III (ACTS Equivalency = MATH 2603) (Sp, Su, Fa)[1]	4	
CHEM 1103 University Chemistry I (ACTS Equivalency = CHEM 1414 Lecture) (Su, Fa) & CHEM 1101L University Chemistry I Laboratory (ACTS Equivalency = CHEM 1414 Lab) (Sp, Su, Fa)	4	
University/State Core Humanities or Fine Arts requirement (as needed)	3	
PHYS 3613 Modern Physics (Sp, Su, Fa)[1,2]		3
CHEM 1123 University Chemistry II (ACTS Equivalency = CHEM 1424 Lecture) (Sp, Su, Fa) & CHEM 1121L University Chemistry II Laboratory (ACTS Equivalency = CHEM 1424 Lab) (Sp, Su, Fa)		4
MATH 2584 Elementary Differential Equations (Sp, Su, Fa)[1,2]		4
BIOL 2013 General Microbiology (ACTS Equivalency = BIOL 2004 Lecture) (Sp, Su, Fa) & BIOL 2011L General Microbiology Laboratory (ACTS Equivalency = BIOL 2004 Lab) (Sp, Su, Fa)[1,3]		4

Year Total:	15	15

Third Year	**Units**	
	Fall	**Spring**
~~MATH 4423 Introduction to Partial Differential Equations (Sp, Su, Fa)[1,2]~~	~~3~~	-
University/State Core Social Science requirement	3	
MATH 3083 Linear Algebra (Sp, Su, Fa)	**3**	
University/State Core U.S. History Requirement	3	
CHEM 3603 Organic Chemistry I (Su, Fa) & CHEM 3601L Organic Chemistry I Laboratory (Su, Fa)[1,2]	4	
PHYS 3414 Electromagnetic Theory (Sp)[1,2]		4
PHYS 4333 Thermal Physics (Sp)		3
CHEM 3613 Organic Chemistry II (Sp, Su) & CHEM 3611L Organic Chemistry II Laboratory (Sp, Su)[2]		4
University/State Core Social Science requirement		3
Year Total:	13	14

Fourth Year	**Units**	
	Fall	**Spring**
PHYS 4073 Introduction to Quantum Mechanics (Fa)[1,2]	3	
BIOL 4003 Laboratory in Prokaryote Biology (Sp, Fa) (Or other 3000-level or higher PHYS, ASTR, BIOL, or CHEM course as approved by advisor)[1,2,3]	3	
University/State Core Social Science requirement	3	
General Electives	6	
~~BIOL 2323 General Genetics (Sp, Fa)~~	~~-~~	~~3~~
BIOL 3023 Evolutionary Biology (Sp, Fa) (Or other 3000-level or higher PHYS, ASTR, BIOL, or CHEM course as approved by advisor)[2]		3
PHYS 4991 Physics Senior Seminar (Sp, Su, Fa)[1,2]		1
General Electives as needed to total 120 degree credit hours		12
Year Total:	15	16

Total Units in Sequence:	120

1 Meets 40-hour advanced credit hour requirement. See College Academic Regulations.

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.

3 Or another chemistry, biology, astronomy or physics elective from PHYS/ASTR Group A (below).

Group A:	Any PHYS or ASTR classes numbered 3000 or above.
Are Similar Programs available in the area?	No
Estimated Student Demand for Program:	N/A Existing Program
Scheduled Program Review Date:	N/A Existing Program
Program Goals and Objectives:	N/A Existing Program
Learning Outcomes:	N/A Existing Program
Description and justification of the request:	Changing MATH 4423 to MATH 3083 in 8-semester plans to align our program with new math minor requirements. MATH 3083 is needed for an upper level physics course - Intro to Quantum Mechanics (PHYS 4073). Correct type of change to "minor" for workflow purposes.
Program reviewer comments	**ddraper (09/22/16 1:16 pm):** Made minor modification to 8-semester plan to indicate certain courses as being recommended since they serve as prerequisites for upper-level CHEM and BIOL course options, and also reflected additional options for upper-level concentration requirements. **agriffin (09/23/16 12:56 pm):** Rollback: Please adjust reason for change to a minor change. **agriffin (09/29/16 8:49 am):** The following courses have been noted as recommended options. However, a technical glitch is keeping them from showing the comments in the preview window. I am approving this request while the technical issue gets addressed: BIOL 2533/2531L, BIOL 2013/2011L, CHEM 3603/3601L, CHEM 3613/3611L, BIOL 4003, and BIOL 3023. See attached correspondence for additional details. **lkulcza (10/04/16 3:56 pm):** Changing requirements within the concentration, but not changing the concentration itself; updated form to reflect this.
Uploaded attachments:	**FW_ PHYSBS-BIPH.pdf**

Key: 541