Date Submitted: 09/12/18 1:52 pm

Viewing: PHYSBS-ELEC : Physics: Electronics Concentration

Last approved: 05/22/18 6:03 pm

Last edit: 10/15/18 10:46 am

Changes proposed by: jkennef

Catalog Pages Using this Program

Physics B.S. with Electronics Concentration

Physics (PHYS)

Submitter: User ID: **jkennef** ~~lkulcza~~ Phone: **5916** ~~7456~~

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. **PHYS 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. 09/12/18 4:54 pm Jeannine Durdik (jdurdik): Approved for ARSC Dean Initial
2. 09/21/18 8:24 am Alice Griffin (agriffin): Approved for Director of Program

Department of Physics(PHYS)

Program Code	PHYSBS-ELEC
Degree	Bachelor of Science
CIP Code	

Assessment and Review
3. 09/24/18 11:31 am Lisa Kulczak (lkulcza): Approved for Registrar Initial
4. 09/24/18 11:55 am Gary Gunderman (ggunderm): Approved for Institutional Research
5. 09/25/18 11:14 am Julia Kennefick (jkennef): Approved for PHYS Chair
6. 10/15/18 12:59 pm Pearl Dowe (pkford): Approved for ARSC Curriculum Committee
7. 10/15/18 2:08 pm Jeannine Durdik (jdurdik): Approved for ARSC Dean
8. 10/15/18 3:36 pm Miran Kang (kang): Approved for Global Campus
9. 10/16/18 10:31 am Terry Martin (tmartin): Approved for Provost Review
10. 10/29/18 11:04 am Alice Griffin (agriffin): Approved for University Course and Program Committee

History

1. Aug 27, 2014 by Leepfrog Administrator (clhelp)
2. Aug 27, 2014 by Leepfrog Administrator (clhelp)
3. May 17, 2016 by Lisa Kulczak (lkulcza)
4. Mar 2, 2017 by Donna Draper (ddraper)
5. Apr 2, 2018 by Gina Daugherty (gdaugher)
6. Apr 2, 2018 by Gina Daugherty (gdaugher)
7. May 22, 2018 by Lisa Kulczak (lkulcza)

40.0801 - Physics, General.

Program Title

Physics: Electronics 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

Electronics Concentration

PHYS 3213	Electronics in Experimental Physics (also fulfills Junior Laboratory requirement)	3
PHYS 4333	Thermal Physics	3
10 semester hours numbered 3000 and above in physics or astronomy.		10
Total Hours		16

8-Semester Plan

Physics B.S. with Electronics Concentration

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 as well as Fulbright College requirements.

University/state minimum core requirements ~~Core requirement hours~~ may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute **with** ~~a three-hour (or more)~~ general **electives.** ~~elective in place of a core area.~~ **Students** ~~Students~~ should consult **with** their **academic advisors.** ~~advisers.~~

First Year	Units Fall	Spring
ENGL 1013 Composition I (ACTS Equivalency = ENGL 1013)	3	
MATH 2554 Calculus I (ACTS Equivalency = MATH 2405)	4	
PHYS 2054 University Physics I (ACTS Equivalency = PHYS 2034)	4	
Fine Arts university/state minimum core	3	
General Electives	1	
ENGL 1023 Composition II (ACTS Equivalency = ENGL 1023)		3
MATH 2564 Calculus II (ACTS Equivalency = MATH 2505)		4
PHYS 2074 University Physics II (ACTS Equivalency = PHYS 2044 Lecture)		4
Humanities university/state minimum core		3
General Electives		1
Year Total:	15	15

Second Year	Units Fall	Spring

MATH 2574 Calculus III (ACTS Equivalency = MATH 2603)	4	
PHYS 2094 University Physics III	4	
Select one of the following four-hour science lecture/lab combinations:	4	
CHEM 1103 University Chemistry I (ACTS Equivalency = CHEM 1414 Lecture)		
& CHEM 1101L University Chemistry I Laboratory (ACTS Equivalency = CHEM 1414 Lab)		
CHEM 1123 University Chemistry II (ACTS Equivalency = CHEM 1424 Lecture)		
& CHEM 1121L University Chemistry II Laboratory (ACTS Equivalency = CHEM 1424 Lab)		
CSCE 2004 Programming Foundations I		
CSCE 2014 Programming Foundations II		
BIOL 1543 Principles of Biology (ACTS Equivalency = BIOL 1014 Lecture)		
& BIOL 1541L Principles of Biology Laboratory (ACTS Equivalency = BIOL 1014 Lab)		
or BIOL 1584 Biology for Majors		
GEOS 1113 General Geology (ACTS Equivalency = GEOL 1114 Lecture)		
& GEOS 1111L General Geology Laboratory (ACTS Equivalency = GEOL 1114 Lab)		
GEOS 1133 Earth Science (ACTS Equivalency = GEOL 1124 Lecture)		
& GEOS 1131L Earth Science Laboratory (ACTS Equivalency = GEOL 1124 Lab)		
or an approved four credit hours of other laboratory-based courses from these departments.		
U.S. History university/state minimum core	3	
~~General Elective~~	~~1~~	-
MATH 2584 Elementary Differential Equations		4
PHYS 3213 Electronics in Experimental Physics		3
PHYS 3613 Modern Physics		3
Select one of the following four-hour science lecture/lab combinations:		4
CHEM 1103 University Chemistry I (ACTS Equivalency = CHEM 1414 Lecture)		
& CHEM 1101L University Chemistry I Laboratory (ACTS Equivalency = CHEM 1414 Lab)		
CHEM 1123 University Chemistry II (ACTS Equivalency = CHEM 1424 Lecture)		
& CHEM 1121L University Chemistry II Laboratory (ACTS Equivalency = CHEM 1424 Lab)		
CSCE 2004 Programming Foundations I		
CSCE 2014 Programming Foundations II		
BIOL 1543 Principles of Biology (ACTS Equivalency = BIOL 1014 Lecture)		
& BIOL 1541L Principles of Biology Laboratory (ACTS Equivalency = BIOL 1014 Lab)		
or BIOL 1584 Biology for Majors		
GEOS 1113 General Geology (ACTS Equivalency = GEOL 1114 Lecture)		
& GEOS 1111L General Geology Laboratory (ACTS Equivalency = GEOL 1114 Lab)		
GEOS 1133 Earth Science (ACTS Equivalency = GEOL 1124 Lecture)		
& GEOS 1131L Earth Science Laboratory (ACTS Equivalency = GEOL 1124 Lab)		
or an approved four credit hours of other laboratory-based courses from these departments.		
General Electives		1
Year Total:	15	15

Third Year	Units

	Fall	Spring
MATH 3083 Linear Algebra	3	
Any PHYS or ASTR course numbered 3000 or higher	3	
Social Sciences university/state minimum core	3	
General Electives	6	
PHYS 3453 Electromagnetic Theory I		3
PHYS 4333 Thermal Physics		3
Social Sciences university/state minimum core		3
~~General Elective~~	-	~~4~~
~~General Elective or PHYS/ASTR Group A1,2~~	-	~~3~~
General Electives		**6**
Year Total:	15	15

Fourth Year	Units	
	Fall	Spring
PHYS 4073 Introduction to Quantum Mechanics1,2	3	
~~PHYS/ASTR Group A 1,2~~	~~3~~	-
~~PHYS/ASTR Group A or General Elective (as needed)1,2~~	~~3~~	-
Any PHYS or ASTR course numbered 3000 or higher	**4**	
Social Sciences university/state minimum core	**3**	
University Residency Requirement Electives	**1**	
General Electives	4	
~~PHYS 4713 Solid State Physics (Highly recommended; else other PHYS/ASTR Group A)1,2~~	-	~~3~~
PHYS 4991 Physics Senior Seminar1,2		1
Any PHYS or ASTR course numbered 3000 or higher		3
General Electives		11
Year Total:	15	15

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.

~~GroupAny PHYS or ASTR classes numbered 3000 or above.~~

~~A~~

3 Any PHYS or ASTR classes numbered 3000 or above.

Are Similar Programs available in the area?

No

Estimated Student Demand for Program na

Scheduled Program Review Date: na

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
Revised 8 semester plans to contain correct number of PHYS elective hours.	8 semester plan contained too many PHYS hours as electives.

Upload attachments

Reviewer Comments

Ryan Cochran (rcc003) (10/12/18 10:52 am): Updated eight-semester degree plan.

Key: 537