

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:

5916 7456

User ID:

jkennef ~~kkulcza~~

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. 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

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 na
hours needed to
complete the
program?

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
	FallSpring
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
	FallSpring
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 1101](#) University Chemistry Laboratory (ACTS Equivalency = CHEM 1414 Lab)

& [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 ± -

[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

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[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

FallSpring

[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
<u>PHYS 3453</u> Electromagnetic Theory I	3
<u>PHYS 4333</u> 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
	FallSpring
<u>PHYS 4073</u> 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
<u>PHYS 4991</u> 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.

~~Group Any 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 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
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