# **PHYSICS B.S.**

Secondary Education Option



# **ACADEMIC ADVISING**

Partnering with students to successfully navigate collegeLocation:Main Hall 208Phone:719.255.3260Website:Academic Advising

## **GENERAL ACADEMIC INFORMATION**

#### Minimum Graduation Requirements

- 133 credit hours
- 45 upper-division credit hours (3000-4999 level)
- 2.0 CU cumulative GPA
- Residency: Last 30 credit hours of degree must be completed while registered in the College of Letters, Arts, and Sciences at UCCS

### **Connect With Your Advisor**

**Current UCCS Students** 

• Appointments: <u>www.uccs.edu/advising/current-students</u> Prospective Students: <u>www.uccs.edu/admissions/contact</u>

#### Student Responsibilities

Students are required to know and follow:

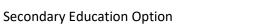
- All academic policies set forth by the University, College, and academic department in the UCCS Catalog: <u>catalog.uccs.edu</u>
- All course prerequisites designated by the University. Failure to meet course prerequisites may result in an administrative drop of the course from a student's schedule. See degree audit for course prerequisites within the academic major.

### **DEGREE REQUIREMENTS**

## Explore Physics: B.S. in Physics | Department of Physics & Energy Science (uccs.edu)

	Ν	1ajor Requirements					
Physics Major	Course/Area	Course Title	Credit Hours				
(40 hours)	PES 1050	General Astronomy I	3				
	PES 1060	General Astronomy II	3				
The Physics major requires a minimum of	PES 1110	General Physics I	4				
40 credit hours of PES course work, and	PES 1120	General Physics II	4				
an additional 30 hours of auxiliary	PES 1160	Advanced Physics Lab I	1				
coursework.	PES 2130	General Physics III	3				
	PES 2160	Advanced Physics Lab II	1				
	PFS 3130 Modern Physics	Modern Physics	3				
Requires a minimum of 21 credit hours of	PES 3170	Instrumentation Laboratory I	2				
upper-division (3000+ level) PES course work.	PES 3180	Instrumentation Laboratory II	2				
WOIK.	PES 3210	Classical Mechanics	3				
All PES courses must have a grade of "C"	PES 4810	Senior Physics Seminar	2				
or better.	Electives	Complete 9 hours of upper-division (3000+ level) PES courses.	9				
of Setter.	Auxiliary Requirements						
All auxiliary requirements must be	BIOL 1300/1310	General Biology: Organismic Biology and Lab	4				
completed in addition to the required	BIOL 1350/1360	General Biology: Intro to the Cell and Lab	4				
major courses.	CHEM 1401/1402	General Chemistry I and Lab	5				
	CHEM 1411/1412	General Chemistry I and Lab	5				
	MATH 1350	Calculus I	4				
	MATH 1360	Calculus II	4				
	MATH 2350	Calculus III	4				
UCCS Teach Courses	UTED 1030	Inquiry Approaches/Lesson Plan Design for Secondary Math/Science Teaching	3				
(33 hours)	UTED 2010	Knowing and Learning in Mathematics and Science	3				
	UTED 3020	Classroom Interactions	3				
A grade of "B-" or better must be earned	UTED 4710	Project-Based Instruction	3				
in all Education courses.	UTED 4720	Reading in the Content Area	3				
	UTED 4730	Apprentice Teaching UCCS Teach and Seminar	12				
Courses should be taken in the	UTLS 3030	Perspectives on Science and Math	3				
appropriate semester. See the four-year plan for details.	UTLS 3040	Science Research Methods	3				

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G	eneral Education and Elective R	equirements				
Core Writing Requirement (6 hours)	<ul> <li>ENGL 1310, 1308, or 1305 (Students choosing ENGL 1305 must complete ENGL 1300 first.)</li> <li>ENGL 1410</li> <li>PORT 3000 (0 Credits) – Writing Portfolio</li> </ul>					
Reasoning Skills	<ul> <li>MATH 1350 (included in auxiliary requirements)</li> <li>UTLS 3040 (included in UCCS Teach requirements)</li> </ul>					
<ul> <li>Area Requirements <ul> <li>(18 hours)</li> </ul> </li> <li>Maximum 2 courses from any one discipline may be applied to the area</li> </ul>	<ul> <li>Humanities – 9 credit hours of which 3 credits must be HUM 3990.</li> <li>Social Sciences – 9 credit hours</li> <li>Natural Sciences –CHEM 1401/1402 &amp; CHEM 1411/1412 (included in auxiliary requirements)</li> </ul>					
requirements Oral Communication, Cultural Diversity, and Global Awareness Requirements	NOTE: Cannot select courses from primary major courses for area requirements.           One course from each list (see degree audit). All courses that fulfill these requirements may also count towards other general education or major requirements.					
LAS Language other than English Requirement	Complete two semesters of a language other than English equivalent to 1010 & 1020 with high school, transfer, placement exam, or UCCS coursework. <i>Courses taken to fulfill this requirement may also count toward Compass Curriculum Explore - Arts, Humanities and Cultures or general electives. See degree audit for details.</i>					
Compass Curriculum	Component	Course				
<ul> <li>(6 hours)</li> <li>Explore and Navigate courses must be outside major and area requirements</li> </ul>	Gateway Explore – Arts, Humanities and Cultures Explore – Society, Behavior and Health	GPS 1010 See Degree Audit UTED 1030				
<ul> <li>Writing Intensive, Inclusiveness, and Sustainability courses can count</li> </ul>	Explore – Physical and Natural World Navigate Summit	BIOL 1350 (included in auxiliary requirements) HUM 3990 (included in LAS area requirements) UTED 4730 (included in UCCS Teach requirements)				
towards other requirements within degree	Writing Intensive Courses (WIC) Two courses with one upper-division (3000+ level)	<ul> <li>HUM 3990 (included in LAS area requirements)</li> <li>UTED 4720 (included in UCCS Teach requirements)</li> </ul>				
	Inclusiveness Sustainability	See Degree Audit See Degree Audit				

## FOUR-YEAR DEGREE PLAN

Please note that this is an example degree program and your program may vary. Students are responsible for completing all course prerequisites.

	$\checkmark$	FALL	Hours	1	SPRING	Hours
a		ENGL 1310	3		ENGL 1410	3
ů O		PES 1110/1160	5		PES 1120/2160	5
Year C		GPS 1010	3		Explore – Arts, Humanities & Cultures Course	3
		MATH 1350	4		MATH 1360	4
		Social Science Elective (Global Awareness/Inclusiveness)	3		UTED 1030	3
		TOTAL	18		TOTAL	18

	1	FALL	Hours	$\checkmark$	SPRING	Hours
		PES 2130	3		PES 3130	3
Š		CHEM 1401/1402	5		CHEM 1411/1412	5
Year T		MATH 2350	4		PES 1060	3
		PES 1050	3		UTED 3020	3
		UTED 2010	3		Humanities Elective	3
		TOTAL	18		TOTAL	17

	1	FALL	Hours	1	SPRING	Hours
		PES 3170	2		PES 3180	2
ee.		UTLS 3040 (Fall Only)	3		PES 3210	3
Ē		UTED 4720 (Fall Only)	3		UTLS 3030 (Spring Only)	3
Year 1		BIOL 1300/1310	4		BIOL 1350/1360	4
		HUM 3990	3		Upper-Division (UD) PES Elective	3
					Social Science Elective (Sustainability)	3
		TOTAL	15		TOTAL	18

	1	FALL	Hours	1	SPRING	Hours
		PES 4810	2		UTED 4730	12
'n		UD Physics Elective	3			3
Fo		UD Physics Elective	3			
ar		UTED 4710	3			
Ye		Humanities Elective	3			
		Social Science Elective (Cultural Diversity)	3			
		TOTAL	17		TOTAL	12

NOTE: Students must complete all course requirements other than UTED 4730 before the final semester.