PHYSICS B.S.



ACADEMIC ADVISING

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GENERAL ACADEMIC INFORMATION

Minimum Graduation Requirements

- 120 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

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)

		Major Requ	irements					
BS Physics Major	Course/Area	Course Title	Credit Hours					
(51-53 hours)	PES 1110	General Physics	4					
_	PES 1120	General Physics	4					
Requires a minimum of 51 to 53 and the arms of BES courses would need to be a seed to be a	PES 1160	Advanced Physi	1					
credit hours of PES course work, and an additional 28 hours of auxiliary	PES 2130	General Physics	3					
coursework.	PES 2160	Advanced Physi	1					
	PES 3130	Modern Physics	3					
Requires a minimum of 20 to 25	PES 3170	Instrumentation	2					
credit hours of upper-division (3000+	PES 3180	Instrumentation	2					
level) PES course work, depending	PES 3210	Classical Mecha	nics		3			
on which option is chosen.	PES 3310	Principles of Ele	3					
All DEC	PES 3410	Thermodynami	cs and Statistical Mechanics		3			
 All PES courses must be completed with a grade of "C" or better. 	PES 4170	Optics Lab	Optics Lab					
with a grade of C. of better.	PES 4810	Senior Physics S	Senior Physics Seminar					
		Auxiliary Requirements						
	CHEM 1401/1402	General Chemis	5					
	CHEM 1411/1412	General Chemis	5					
	Computer Science	Complete one of the following: CS 1090, CS 1120, CS 1150, MAE 1090, PES 3140						
	MATH 1350	Calculus I						
	MATH 1360	Calculus II	4					
	MATH 2350	Calculus III	4					
	MATH 3400	Differential Equ	3					
	Traditional (18 h	ours) all UD	Energy Science (19 hours)	Solid State (20) hours)			
	PES 3250 (3 credit hours) PES 3320 (3)		PES 2500 (3)	PES 3250 (3)				
			ECON 1010 (3)	PES 3320 (3)				
	PES 4250 (3)		GEOL 1010 (4) PES 4150 (2)					
	PES 4510 (3)		PES 4250 (3)					
	PES Elective – PES 306	60, 3650, 3950,		PES 4460 (3)				
	3970, 4150, 4260, 430	00, 4460, 4490,		, ,				
	4600, 4720, OR 4850							
	MATH elective 3100 or higher		3 Technical Courses – ENSC 3610,	CHEM 4101,				
			4800 or PES 4800; GEOL 3700; GES	4111; CS 3160, 4600,	•			
			3060, 3100, 3200, 4090; PES 3320, 3650, OR 3670	2210, 3020, 4020; MA 4450, 4470; PES 4260	,			
			3030, 01 3070	OR 4490				
	I.		OK 4490					

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G	eneral Education and Elective R	equirements			
Core Writing Requirement	ENGL 1310, 1308, or 1305 (Students choosing ENGL 1305 must complete ENGL 1300 first.)				
(9 hours)	• ENGL 1410				
	• TCID 2090				
	PORT 3000 (0 Credits) – Writing Portfolio				
Reasoning Skills	MATH 1350 (included in auxiliary requirements)				
	PES 4170 (included in major requirements)				
Area Requirements	 Humanities – 9 credit hours of which 3 credits m 	ust be HUM 3990.			
(18 hours)	Social Sciences – 9 credit hours, Energy Science r	nust include ECON 1010			
 Maximum 2 courses from any one 	Natural Sciences – CHEM 1401, CHEM 1402, CHE	M 1411, CHEM 1412			
discipline may be applied to the area					
requirements	NOTE: Cannot select courses from primary majo	r courses for area requirements.			
Oral Communication, Cultural Diversity,	ity, One course from each list (see degree audit). All courses that fulfill these requirements may also count towards of				
and Global Awareness Requirements	general education or major requirements.				
LAS Language other than English	Complete two semesters of a language other than English equivalent to 1010 & 1020 with high school, transfer,				
Requirement	1 *	acement exam, or UCCS coursework. 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.				
Compass Curriculum	Component	Course			
(12 hours)	Gateway	GPS 1010			
 Explore and Navigate courses must be 	Explore – Arts, Humanities and Cultures	See Degree Audit			
outside major and area requirements	Explore – Society, Behavior and Health	See Degree Audit			
 Writing Intensive, Inclusiveness, and 	Explore – Physical and Natural World	See Degree Audit (Take GEOL 1010 for Energy Science)			
Sustainability courses can count	Navigate	HUM 3990 (included in LAS area requirements)			
towards other requirements within	Summit	PES 4810 (included in major requirements)			
degree	Writing Intensive Courses (WIC)	HUM 3990 (included in LAS area requirements)			
ac ₀ . cc	Two courses with one upper-division (3000+ level)	See Degree Audit			
	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.

	1	FALL	Hours	1	SPRING	Hours	
ЭC		ENGL 1310	3		ENGL 1410	3	
ō		PES 1110/1160	5		PES 1120/2160	5	
ear		MATH 1350	4		MATH 1360	4	
Ye		GPS 1010	3		Explore – Arts, Humanities and Cultures Course	3	
		TOTAL	15		TOTAL	15	

	1	FALL	Hours	1	SPRING	Hours
		PES 2130	3		PES 3130	3
,š		CHEM 1401/1402	5		CHEM 1411/1412	5
ear T		MATH 2350	4		MATH 3400	3
		Explore – Society, Behavior and Health Course	3		Computer Science Course	3
_					Explore – Physical & Natural World	3
		TOTAL	15		TOTAL	17

Year Three	1	FALL	Hours	1	SPRING	Hours
		TCID 2090	3		PES 3180 (SPRING ONLY)	2
		PES 3170 (FALL ONLY)	2		PES 3210 (SPRING ONLY)	3
		PES 3310 (FALL ONLY)	3		PES 3410 (SPRING ONLY)	3
		PES 4170 (FALL ONLY)	2		Physics Option Course	3
		Physics Option Course	3		Social Science Elective (Global Awareness)	3
		Social Science Elective (Inclusiveness/Cultural Diversity)	3			
		TOTAL	16		TOTAL	14

	1	FALL	Hours	1	SPRING	Hours
'n		Physics Option Course	3		PES 4810	2
		Upper-Division (UD) Physics Option Course	3		UD Physics Option Course	3
요		UD Physics Option Course	3		UD General Elective or Physics Option Course (Solid	2
ar					State option)	
Υe		HUM 3990	3		UD Humanities Elective (Writing Intensive)	3
		UD Humanities Elective	3		UD Social Science Elective (Sustainability)	3
		TOTAL	15		TOTAL	13