

# 2014 - 2015 Old Dominion University Catalog

## Bachelor of Science in Physics

### (Concentration A - Research) (w/ VCCS Equivalencies)

*Sample four year curriculum with a suggested ordering of courses. Students may re-order as needed.*

*\* indicates not automatically waived with transferrable associates degree, C or better required for transfer.*

#### YEAR 1 - FRESHMAN (33 CREDITS)

FALL SEMESTER (17 credits)		SPRING SEMESTER (16 credits)	
<u>General Education and Major Coursework:</u>	<u>VCCS Equivalency:</u>	<u>General Education and Major Coursework:</u>	<u>VCCS Equivalency:</u>
MATH 211 (4 credits)	MTH 173 or 273*	ENGL 211C or 231C	ENG 112, 210, 115 or 131*
ENGL 110C	ENG 111*	Human Creativity	<a href="#">Transfer Guide</a>
Language and Culture I (May be waived, see catalog for details)	<a href="#">Transfer Guide</a>	Language and Culture II (May be waived, see catalog for details)	<a href="#">Transfer Guide</a>
CS 150 (4 credits)	<a href="#">Transfer Guide*</a>	MATH 212 (4 credits)	MTH 174 or 274*
Oral Communication	<a href="#">Transfer Guide</a>	Human Behavior	<a href="#">Transfer Guide</a>

#### YEAR 2 - SOPHOMORE (28 CREDITS)

FALL SEMESTER (14 credits)		SPRING SEMESTER (14 credits)	
<u>General Education and Major Coursework:</u>	<u>VCCS Equivalency:</u>	<u>General Education and Major Coursework:</u>	<u>VCCS Equivalency:</u>
CHEM 121N and 122N (4 credits)	CHM 111*	CHEM 123N and 124N (4 credits)	CHM 112*
Literature	<a href="#">Transfer Guide</a>	Interpreting the Past	<a href="#">Transfer Guide</a>
Philosophy and Ethics	<a href="#">Transfer Guide</a>	PHYS 232N (4 credits)	PHY 222, 232 or 242*
PHYS 231 (4 credits)	PHY 221, 231 or 241*	Impact of Technology	<a href="#">Transfer Guide</a>

#### YEAR 3 - JUNIOR (31 CREDITS)

FALL SEMESTER (16 credits)		SPRING SEMESTER (15 credits)	
<u>Major Coursework:</u>	<u>VCCS Equivalency:</u>	<u>Major Coursework:</u>	<u>VCCS Equivalency:</u>
MATH 312 or 285 (4 credits)		MATH 316, 401, 421 or 422	
MATH 307 or 280		PHYS 355	
PHYS 303		PHYS 413	
PHYS 319		PHYS 420	
PHYS 323		PHYS 454	

#### YEAR 4 - SENIOR (28 CREDITS)

FALL SEMESTER (13 credits)		SPRING SEMESTER (15 credits)	
<u>General Education and Major Coursework:</u>	<u>VCCS Equivalency:</u>	<u>General Education and Major Coursework:</u>	<u>VCCS Equivalency:</u>
PHYS 425		PHYS 453	
PHYS 452		PHYS 456	
PHYS 499W or 489W & 490W		Select two of the following: PHYS 313, 350, 411, 415, 416 or 417 (6 credits)	
PHYS 120 or 309 (1 credit)			
<u>Upper Division Gen. Ed. Coursework:</u>		<u>Upper Division Gen. Ed. Coursework:</u>	
300-/400-level course (Option D)		300-/400-level course (Option D)	

Language and Culture may be waived, see ODU catalog for exemptions.

Note: Upper division general education (minor) has other options, see catalog for requirements.

Concentration A ( Research) is designed primarily for students preparing to do graduate study in physics and related fields or for students preparing to work professionally upon completion of the B. S. degree in various technical fields requiring the strongest preparation in physics.

Requirements for graduation include a minimum cumulative grade point average of 2.00 overall and in the major, a grade of C or better in all courses required for the major, including prerequisite courses, 120 credit hours, which must include both a minimum of 30 credit hours overall and 12 credit hours in upper-level courses in the major program from Old Dominion University, completion of ENGL 110C, ENGL 211C or 221C or 231C, and a writing intensive (W) course in the major with a grade of C or better, and completion of Senior Assessment.