

**2015 - 2016 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 (26 CREDITS)**

<b>FALL SEMESTER (14 credits)</b>	<b>SPRING SEMESTER (12 credits)</b>
<u>General Education and Major Coursework:</u>	<u>General Education and Major Coursework:</u>
MATH 211	MATH 212
ENGL 110C	PHYS 231N
CHEM 121N/122N*	CHEM 123N/124N*
Oral Communication	
<u>VCCS Equivalency:</u>	<u>VCCS Equivalency:</u>
MTH 173 or 273*	MTH 174 or 274*
ENG 111*	PHY 221, 231 or 241*
CHM 111*	CHM 112*
CSC 201, EGR 126 or ITP 100*	

**YEAR 2 - SOPHOMORE (30 CREDITS)**

<b>FALL SEMESTER (14 credits)</b>	<b>SPRING SEMESTER (16 credits)</b>
<u>General Education and Major Coursework:</u>	<u>General Education and Major Coursework:</u>
ENGL 211C or 231C	Human Creativity
MATH 312 or 285	Interpreting the Past
PHYS 232N	PHYS 319
Information Literacy and Research: CS 120G or CS 121G	PHYS 313+309
	MATH 307 or 280
<u>VCCS Equivalency:</u>	<u>VCCS Equivalency:</u>
ENG 112, 210, 115 or 131*	<a href="#">Transfer Guide</a>
MTH 277*	<a href="#">Transfer Guide</a>
PHY 222, 232 or 242*	MTH 279*
<a href="#">Transfer Guide</a>	

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

<b>FALL SEMESTER (15 credits)</b>	<b>SPRING SEMESTER (16 credits)</b>
<u>General Education and Major Coursework:</u>	<u>General Education and Major Coursework:</u>
PHYS 355	MATH 316, 401, 421 or 422
Literature	CS 150
PHYS 303	PHYS 413
PHYS 323	Human Behavior
Impact of Technology	PHYS 454
<u>VCCS Equivalency:</u>	<u>VCCS Equivalency:</u>
<a href="#">Transfer Guide</a>	CSC 201, EGR 126 or ITP 100*
<a href="#">Transfer Guide</a>	<a href="#">Transfer Guide</a>

**YEAR 4 - SENIOR (33 CREDITS)**

<b>FALL SEMESTER (16 credits)</b>	<b>SPRING SEMESTER (17 credits)</b>
<u>General Education and Major Coursework:</u>	<u>General Education and Major Coursework:</u>
PHYS 425	PHYS 453
PHYS 452	PHYS 456
PHYS 420	Select one of the following: PHYS 411, 413, 416 or 417
PHYS 489W	PHYS 490W
Philosophy and Ethics	Elective**
<u>VCCS Equivalency:</u>	<u>VCCS Equivalency:</u>
<a href="#">Transfer Guide</a>	
<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 is not included in this sample (6 credits). This requirement may be waived, see catalog for details.*

*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.*