

# 2016 - 2017 Old Dominion University Catalog

## Bachelor of Science in Physics and Electrical Engineering

### (Concentration D: Dual Degree Program with Electrical Engineering - 5 Year Plan)

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

YEAR 1 - FRESHMAN (31 CREDITS)			
FALL SEMESTER (15 credits)		SPRING SEMESTER (16 credits)	
<u>General Education and Major Coursework:</u>		<u>General Education and Major Coursework:</u>	
MATH 211	4	ENGL 211C or 231C	3
ENGL 110C	3	Human Creativity	3
Language and Culture I (May be waived, see catalog for details)	3	Language and Culture II (May be waived, see catalog for details)	3
Oral Communication	3	MATH 212	4
ENGN 110	2	Human Behavior	3
YEAR 2 - SOPHOMORE (34 CREDITS)			
FALL SEMESTER (16 credits)		SPRING SEMESTER (18 credits)	
<u>General Education and Major Coursework:</u>		<u>General Education and Major Coursework:</u>	
CHEM 121N/122N	4	CHEM 123N/124N	4
Literature	3	Interpreting the Past	3
ECE 111 (Meets Information Literacy Requirement)	2	PHYS 232N	4
PHYS 231N	4	ECE 202	3
ECE 201	3	CS 150	4
YEAR 3 - JUNIOR (31-32 CREDITS)			
FALL SEMESTER (16-17 credits)		SPRING SEMESTER (15 credits)	
<u>Major Coursework:</u>		<u>Major Coursework:</u>	
MATH 312	4	PHYS 323	3
MATH 307	3	PHYS 425	3
ECE 287 or PHY 303	2-3	PHYS 413	3
PHYS 319	3	ECE 332	3
ECE 241	4	MATH 316 or 401 or 421 or 422 or PHY 355	3
YEAR 4 - SENIOR (31 CREDITS)			
FALL SEMESTER (15credits)		SPRING SEMESTER (16 credits)	
<u>Major Coursework:</u>		<u>Major Coursework:</u>	
PHYS 454	3	PHYS 453 or ECE 323	3
PHYS 452	3	ECE 313	4
PHYS 420	3	PHYS 499W or 489W & 490W	3
ECE 381	3	ECE 302	3
ECE 387	3	ECE 303	3
YEAR 5 - (30-32 CREDITS)			
FALL SEMESTER (17 credits)		SPRING SEMESTER (13-15 credits)	
<u>Major Coursework:</u>		<u>Major Coursework:</u>	
ECE Technical Elective I	3	PHYS 456	3
ECE Technical Elective II	3	ECE Technical Elective III	3
ENMA 480 (Meets Philosophy and Ethics requirement)	3	ECE 487	2
ECE 485W	3	Approved Physics Seminar	1
ECE 486	2	PHYS 411 or 415 or 416 or 417	3
ECE 304	3	Approved Elective	1-3

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

The Impact of Technology requirement is met with the ECE major.

The Upper Division General Education will be satisfied by completion of the dual majors.

Concentration D is a five-year, dual degree program in physics and electrical engineering. Students will receive a B.S. and B.S.E.E. upon graduation. Concentration D provides the highest level of preparation for both graduate school and positions in industry.

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.