

BACHELOR OF SCIENCE–Physics Major Track D (B.S. Physics and B.S.E.E. in Electrical Engineering)

2015-2016 Old Dominion University Catalog (Catalog is official, this curriculum sheet is advisory)

NAME: _____

UIN: _____

Students earning the AS, AA, or AA&S (or university parallel) degree from a Virginia Community College automatically satisfy the lower division general education requirements. **Courses marked with * require a grade of C or better to transfer, even with the AS degree. The remaining lower division courses are automatically satisfied by the AS (including foreign language), regardless of the grade earned.** Additionally, courses in which a grade of “C-” or below were earned will not transfer. Therefore Community College degree holders may require additional credits to meet the 150 credit hour graduation minimum. **(AS=Associate degree)**

LOWER DIVISION GENERAL EDUCATION REQUIREMENTS

	grade/credit	<u>VCCS transfer equivalent</u>
Written Communication–6 hours		
ENGL 110C English Composition I	3	AS/ENG 111
ENGL 211C, 231C	3	AS/ENG 112, 210, 115, or 131

Oral Communication–3 hours	3	CST 100, 105, 110, 111, 112, or 126
COMM 101R, 103R, 112R		

Mathematics-3 hours		satisfied in the major
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Language and Culture –0-6 hours		AS/HS/TOEFL
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Information Literacy–3 hours		satisfied in ECE major
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Human Creativity--3 hours		
ARTH 121A, ARTS122A, DANC 185A, MUSC 264A, THEA 241A, COMM/THEA 270A	3	AS/ART 101, 102, 111, 112, 113, 114, 115; MUS 121, 122; SPD130, 141, or 142

History--3 hours		
HIST 100H, 101H, 102H, 103H, 104H, 105H	3	HIS 101, 102, 111, 112, 121, 122, 201, 202, 203, 204, 231, 232, 251, 252, 253, or 254

Literature--3 hours		
ENGL 112L, 114L, FLET 100L	3	AS/ENG 112, 235, 237, 241, 242, 246, 267, or 268

Philosophy and Ethics–3 hours		
ENMA 480	3	

Natural Science and Technology–8 hours		satisfied in the major
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Human Behavior–3 hours	3	AS
ANTR 110S, CRJS 215S, ECON 200S, ECON 201S, ECON 202S, GEOG 100S, GEOG 101S, POLS 100S, POLS 101S, POLS 102S, PSYC 201S, PSYC 203S, SOC 201S, COMM 200S, WMST 201S, FIN 210S		

The Impact of Technology–3 hours		satisfied in the major
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Additional Graduation Requirements:

Passage of Exit Writing Exam	_____
Application for Graduation	_____
Passage of Physics Exit Exam	_____
Senior Assessment	_____

150 HOURS AND A 2.0 GRADE POINT AVERAGE IN PHYSICS, E.E. AND OVERALL ARE NEEDED TO GRADUATE.

Upper Division Gen Ed: Satisfied by E.E. Second Degree

Common Course Requirements	grade/credit	Transfer/subs
Approved Physics Seminar	_____	ENGN 110 _____:
CHEM 121N/122N Chemistry I**	4	CHM 111 or 113
CHEM 123N/124N Chemistry II**	4	CHM 112 or 114
MATH 211 Calculus I*	4	_____
MATH 212 Calculus II	4	_____
MATH 312 Calculus III	4	MATH 285
MATH 307 Differential Equations	3	MATH 280
CS 150 Intro to Programming	4	_____
PHYS 231N University Physics I*	4	_____
PHYS 232N University Physics II*	4	_____

Physics Course Requirements	grade/credit	Substitutions
MATH 316 or 401 or 421 or 422	3	_____
PHYS 323 Modern Physics	3	_____
PHYS 319 Analytical Mechanics	3	_____
PHYS 425 Electromagnetism I	3	_____
PHYS 452 Quantum Mechanics I	3	_____
PHYS 303 Laboratory	_____	ECE 287
PHYS 413 Methods of Exp. Physics	3	_____
PHYS 454 Thermal Physics	3	_____
PHYS 420 Computational Physics	3	_____
PHYS 453 Electromagnetism II	3	or ECE 323
PHYS 456 Quantum Mechanics II	3	_____
PHYS 499W or 489W/490W Thesis	3	_____
One from: PHYS 411, 415, 416, 417	3	_____

Engineering Course Requirements	grade/credit	Transfer
ENGN 110 Engin. & Tech. I	2	_____
ECE 111 Info Literacy for ECE	2	_____
ECE 201 Circuit Analysis I.*	3	_____
ECE 202 Circuit Analysis II.*	3	_____
ECE 287 Circuit Analysis*	2	_____
ECE 241 Fund. Comp. Engn.*	4	_____
ECE 302 Linear Systems*	3	_____
ECE 303 Intro. To Electrical Power	3	_____
ECE 313 Electronics Circuits	4	_____
ECE 332 Microelectr. Mat. & Proc.	3	_____
ECE 304 Prob. Stat. & Reliab.	3	_____
ECE 381 Intro to Disc-time Sig. Proc.	3	_____
ECE 387 Microelectronics Lab	3	_____
ECE 485W EE Design I	3	_____
ECE 486 ECE Design II: Prep	2	_____
ECE 487 ECE Design II	2	_____
ECE Tech Elective I	3	_____
ECE Tech Elective II	3	_____
ECE Tech Elective III	3	_____

***A minimum grade of “C” is required in Math 211, PHYS 231 and PHYS 232 and all ECE 2xx courses.**

**** (CHEM 137N/138N) or (CHEM 121N/122N/123N/124N)**

edited: June 29, 2015