

## PHYSICS/ENGINEERING DUAL MAJOR

3 Years at WWC followed by 2 years of Engineering at either UVA or WVU

<u>Required Courses</u>		<u>Hrs.</u>	<u>Prereq.</u>	<u>Rec.Yr.</u>
PHYS 145	Engineering Design I	1		Fr
PHYS 146	Engineering Design II	1		Fr
PHYS 161	General Physics I w/Calculus	4	Pre or coreq MATH 161	Fr
PHYS 162	General Physics II w/Calculus	4	Pre or coreq MATH 161	Fr
PHYS 210	Light & Atomic Physics	3	PHYS 152 or 162, MATH 161; Coreq PHYS 211L	Soph
PHYS 211L	Light & Atomic Physics Lab	1	Coreq PHYS 210	Soph
PHYS 250	Electronics	3	PHYS 152 or 162, MATH 161; Coreq PHYS 251L	Soph
PHYS 251L	Electronics Lab	1	Coreq PHYS 250	Soph
PHYS 305L	Electro-Optics Lab	1	PHYS 210	Jr
PHYS 309	Engineering Mechanics	3	PHYS 152 or 162, MATH 161	Jr
PHYS 310	Analytical Mechanics	3	PHYS 161, 162, MATH 162	Jr
PHYS 311	Mechanics of Materials	3	MATH 162, PHYS 151 or 161, PHYS 152 or 162	Jr
PHYS 340	Engineering Thermodynamics	3	MATH 161, PHYS 151 or 161	Jr
PHYS 345L	Engineering Measurements Lab	1	Pre or coreq PHYS 162	Jr
PHYS 350	Fluid Mechanics	3	MATH 162, PHYS 151 or 161, PHYS 152 or 162	Jr
PHYS 360	Electromagnetic Theory	3	PHYS 161, 162; Pre or coreq MATH 230	Jr
CHEM 161	Acc Gen Chem for Science Majors	3	HS Chemistry or CHEM 105, 107L; Coreq CHEM 163L	Fr/Soph
CHEM 163L	Acc Gen Chem for Sci Majors Lab	1	HS Chemistry of CHEM 105, 107L; Coreq CHEM 161	Fr/Soph
CHEM 131	General Chem for Sci Majors I	3	Coreq CHEM 133L	Fr
CHEM 133L	General Chem for Sci Maj I Lab	1	Coreq CHEM 131	Fr
CHEM 132	General Chem for Sci Majors II	3	C- or better in CHEM 131, 133L; Coreq CHEM 134L	Fr
CHEM 134L	General Chem for Sci Maj II Lab	1	Coreq CHEM 132	Fr
CSCI 230	Scientific Programming	3	PHYS 152 or 162	Soph
MATH 161	Calculus I	4	MATH 130 or equiv or placement	Fr
MATH 162	Calculus II	4	C (2.0) or better in MATH 161; Coreq MATH 163	Fr
MATH 163	Technology for Calculus	1	Coreq MATH 162	Fr
MATH 223	Calculus III	4	C (2.0) or better in MATH 162; Pre or coreq MATH 163	Soph
MATH 230	Differential Equations	4	MATH 162; Pre or coreq MATH 163	Soph

62-66 total hrs

Six credits of Wesleyan's general studies requirements may be transferred from the engineering university.

**For more information regarding the Physics/Engineering Dual Degree Program at West Virginia University or the University of Virginia please contact Dr. Bert Popson, Chair of the Physics Department.**

NAME: \_\_\_\_\_

**B.A. Degree: Physics/Engineering Dual-Degree (for students entering in Fall 2018/Spring 2019)  
3 Years at WV Wesleyan College followed by 2 years of Engineering at either UVA or WVU**

In the "WHAT" column, enter the specific course number when applicable--e.g. HIST 121. In the "WHEN" column, enter the term and year in which the requirement is satisfied--e.g., sp '00.

General Education		Physics/Engineering Dual-Degree WVWC Coursework	
WHAT	WHEN	WHAT	WHEN
_____	ENGL 101/INDS 106* w/ C (2.0) [3 hrs]	_____	PHYS 145 [1 hr]
_____	ENGL 102/INDS 102* w/ C(2.0)* [3 hrs]	_____	PHYS 146 [1 hr]
_____	COMM 211/INDS 103 w/ C(2.0) [3 hrs]	_____	PHYS 161 [4 hrs]
	Dept senior seminar/writing course To be completed at WVU/UVA	_____	PHYS 162 [4 hrs]
_____	BIOL/CHEM/ENVS/PHSC/PHYS w/ lab [3 hrs]	_____	PHYS 210 [3 hrs]
	/INDS 112 [4 hrs]	_____	PHYS 211L [1 hr]
_____	BIOL/CHEM/ENVS/PHSC/PHYS w/ lab [3 hrs]	_____	PHYS 250 [3 hrs]
	/INDS 112 [4 hrs]	_____	PHYS 251L [1 hr]
_____	MATH (except 112,141,203,205)/	_____	PHYS 305L [1 hr]
	PSYC 225/230/INDS 114 [3-4 hrs]	_____	PHYS 309 [3 hrs]
_____	RELG/INDS 111 [3-4 hrs]	_____	PHYS 310 [3 hrs]
_____	PHIL [3 hrs]/INDS 110 [4 hrs]	_____	PHYS 311 [3 hrs]
_____	INDS 120 [3 hrs]/INDS 116 [4 hrs]	_____	PHYS 340 [3 hrs]
_____	Any literature course/INDS 113[3 hrs]	_____	PHYS 345L [1 hr]
	Fine Arts	_____	PHYS 350 [3 hrs]
	_____ ART (except 265)/	_____	PHYS 360 [3 hrs]
	DANC/MUSC/THRE/ENGL 213/	_____	CHEM 161 [3 hrs]
	INDS 107 [3-4 hrs]	_____	CHEM 163L [1 hr]
	OR	_____	CSCI 230 [3 hrs]
	_____ MUSC/THRE [2 hrs]	_____	MATH 161 [4 hrs]
	_____ same discipline [1 hr]	_____	MATH 162 [4 hrs]
	OR	_____	MATH 163 [1 hr]
	_____ MUSC/THRE [1 hr]	_____	MATH 223 [4 hrs]
	_____ same discipline [1 hr]	_____	MATH 230 [4 hrs]
	_____ same discipline [1 hr]		
_____	HIST 100 or 200 level except HIST 201/ or INDS 117 [3-4hrs]	_____	62 semester hours
_____	CJUS/ECON/GEOG/GNST/POLS/PSYC/ SOCL [3hrs]/INDS 104 [4 hrs]		
_____	US Cultural Studies [3 hrs]/INDS 109 [4 hrs]		
_____	Non-Western Cultural Studies [3 hrs]/ INDS 108 [4 hrs]		
_____	EXSC 110/120/121/130/201/240 [3 hrs]/INDS 105 [4 hrs]		
_____	120 semester hours		

➤Physics/Engineering dual-degree majors may count up to 52 hours in Physics and Engineering toward graduation. Three hours over the limit may count to accommodate an internship in the discipline.

➤The following limits apply when counting hours applicable toward the 120 required for graduation: 4 hours of physical activity (EXSC) and 8 hours of Music ensemble.

➤Only six hours of any minor may overlap with the required credit hours of a student's chosen major.

\*Enter NA (not applicable) if waived upon admission or if completing the honors program.