

Example Plan of Study for BS Applied Physics



THE CITADEL
PHYSICS

Freshman year	LDRS 101	First Year Exp	1				
	FSEM 101	Freshman seminar	3	RPED 260	Physical Fitness, Resiliency, and Wellness	3	
	FSWI 101	Freshman linked writing	3	PHYS 221	Physics with Calculus I	3	
	PHYS 101	Introduction to Physics	3	PHYS 271	Introductory Physics lab I	1	
	MATH 119 or 131	Pre-Calc or Calculus I	4	MATH 131 or 132	Calculus I or II	4	
		Modern language	3		Modern language	3	
	ROTC	1st Year Basic ROTC	1	ROTC	1st Year Basic ROTC	1	
			total	18			total
Sophomore year	LDRS 211	Leadership Service Laboratory	0	PHYS 224	Oscillations, Waves, and Light	3	
	PHYS 222	Physics with Calculus II	3	PHYS 274	Oscillations, Waves, and Light Laboratory	1	
	PHYS 272	Introductory Physics lab II	1	PHYS 307	Electronic Instrumentation	3	
	COMM 260	Technical Writing and Communication	3	PHYS 357	Electronic Instrumentation Laboratory	1	
		Strand Course	3	CSCI 205	Introduction to Programming with Python	3	
	MATH 132 or 231	Calculus II or Calculus III	4	MATH 231 or 234***	Calc III or Applied Engineering Mathematics I	4	
				<i>*** if taking MATH 231, must take MATH 234 a subsequent term</i>			
	ROTC	2nd Year Basic ROTC	2	ROTC	2nd Year Basic ROTC	2	
		total	16			total	17
Junior year	LDRS 311	Junior Ethics Enrichment Experience	0	LDRS 371	Leadership in Organizations	3	
	PHYS 223	Modern physics	3	PHYS 309	Computational Physics: Modeling and Simulation	3	
	PHYS 315	Analytical Mechanics I	3	PHYS 310	Sensors, Actuators, and Microcontrollers	3	
	PHYS 308	Optics	3	PHYS 351	Junior Laboratory	3	
	PHYS 358	Optics lab	1				
	MATH 234	Applied Engineering Math I	4				
	CHEM 151	General Chemistry I	3	CHEM 152	General Chemistry II	3	
	CHEM 161	General Chemistry I Laboratory	1	CHEM 162	General Chemistry II Laboratory	1	
	ROTC	1st Year Advanced ROTC	0	ROTC	1st Year Advanced ROTC	0	
			total	18			total
Senior year	LDRS 411	Senior Leadership Integration Seminar	0	LDRS 202	Leadership in American Government and Society	3	
	PHYS 403	Electrodynamics I	3	PHYS 410	Thermodynamics	3	
	PHYS 405	Quantum Mechanics I	3	PHYS 421	Physics Capstone II	3	
	PHYS 420	Physics Capstone I	3		Approved PHYS elective	3	
		Approved PHYS elective	3		Strand Course	3	
		Strand Course	3				
	RPED	Required Physical Education	0	RPED	Required Physical Education	0	
	ROTC	2nd Year Advanced ROTC	0	ROTC	2nd Year Advanced ROTC	0	
		total	15			total	15

Example Plan of Study for BA Physics



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PHYSICS

Freshman year	LDRS 101	First Year Exp	1	PHYS 221	Physics with Calculus I	3	
	FSEM 101	Freshman seminar	3	PHYS 271	Introductory Physics lab I	1	
	FSWI 101	Freshman linked writing	3	MATH 131 or 132	Calculus I or Calculus II	4	
	PHYS 101	Introduction to Physics	3		General elective	3	
	MATH 119 or 131	Pre-Calc or Calculus I	4				
		Modern language	3		Modern language	3	
	ROTC	1st Year Basic ROTC	1	ROTC	1st Year Basic ROTC	1	
		total	18			total	15
Sophomore year	LDRS 211	Leadership Service Laboratory	0	PHYS 224	Oscillations, Waves, and Light	3	
	PHYS 222	Physics with Calculus II	3	PHYS 274	Oscillations, Waves, and Light Laboratory	1	
	PHYS 272	Introductory Physics lab II	1		Strand Course 1	3	
		General elective	3		General elective	3	
		Science w/lab (non-physics)	4				
	MATH 132 or 231	Calculus II or Calculus III/Applied Engineering Math	4	MATH 231 or 234***	Calc III/Applied Engineering Mathematics I or elective	4	
	ROTC	2nd Year Basic ROTC	2	ROTC	2nd Year Basic ROTC	2	
		total	17			total	16
Junior year	LDRS 311	Junior Ethics Enrichment Experience	0	LDRS 371	Leadership in Organizations	3	
	PHYS 223	Modern physics	3	PHYS 3XX/4XX	Any 300 or 400 Level Physics	3	
	PHYS 3XX/4XX	Any 300 or 400 Level Physics	3	PHYS 3XX/4XX	Any 300 or 400 Level Physics	3	
		Strand Course 2	3				
		General elective	3		Strand Course 3	3	
	COMM 260	Technical Writing and Communication	3	RPED 260	Physical Fitness, Resiliency, and Wellness	3	
	ROTC	1st Year Advanced ROTC	0	ROTC	1st Year Advanced ROTC	0	
		total	15			total	15
Senior year	LDRS 411	Senior Leadership Integration Seminar	0	LDRS 202	Leadership in American Government and Society	3	
	PHYS 3XX/4XX	Any 300 or 400 Level Physics	3	PHYS 421	Physics Capstone II	3	
	PHYS 420	Physics Capstone I	3		General elective	3	
		General elective	3		General elective	3	
		General elective	3		General elective	3	
		Strand Course 4	3				
	RPED	Required Physical Education	0	RPED	Required Physical Education	0	
	ROTC	2nd Year Advanced ROTC	0	ROTC	2nd Year Advanced ROTC	0	
		total	15			total	15