

First Year – Fall Semester			First Year – Spring Semester		
CHEM 111, 111L	Principles of Chemistry I Sufficient math scores or min 'C' in CHEM 101, 101L, MATH 143, 160, or 170	4	CHEM 112, 112L	Principles of Chemistry II CHEM 111, 111L or Permission	5
MATH 170	Analytic Geometry and Calculus I MATH 143 with 'C' or better and 144, or sufficient exam scores	4	MATH 175	Analytic Geometry and Calculus II MATH 170 with a grade of 'C' or better	4
ENGL 102	College Writing and Rhetoric ENGL 101 or sufficient test scores	3	PHYS 211, 211L	Engineering Physics I (with Lab) MATH 170	4
PHYS 200	Physics Seminar	1		Humanities/Social Science Course	3
	Humanities/Social Science Course	3			
	Total Credits	15		Total Credits	16
Second Year – Fall Semester			Second Year – Spring Semester		
PHYS 212, 212L	Engineering Physics II (with Lab) PHYS 211, 211L; MATH 175	4	PHYS 213	Engineering Physics III (Spring only) PHYS 211, 211L; MATH 170	3
MATH 275	Analytic Geometry and Calculus III MATH 175	3	PHYS 305	Modern Physics (Spring only) PHYS 212, 212L; MATH 275, PHYS 213	3
MATH 330	Linear Algebra MATH 170; 175 recommended	3	MATH 310	Ordinary Differential Equations MATH 175; 275 recommended	3
CS 120	Computer Science I MATH 143 or CS 112 with 'C' or better, or sufficient test scores	4	ELECTIVE	Physics and Engineering Elective Prerequisites vary by course	3
COMM 101	Fundamentals of Public Speaking	2		Humanities/Social Science Course	3
	Total Credits	16		Total Credits	15
Third Year – Fall Semester			Third Year – Spring Semester		
PHYS 321	Analytical Mechanics (Fall only) PHYS 212, 212L and MATH 275; MATH 310	3	PHYS 351	Introductory Quantum Mechanics I (Spring only) PHYS 305, 371; MATH 330	3
PHYS 341	Electromagnetic Fields I (Fall only) PHYS 212 and MATH 275	3	PHYS 400+	Physics Elective (400+) Prerequisites vary by course	3
PHYS 371	Mathematical Physics PHYS 212, 212L and MATH 275	3	PHYS 490	Research Permission of instructor	1
PHYS 490	Research Permission of instructor	1	ELECTIVE	UPDV Physics and Engineering Elective Prerequisites vary by course	3
ELECTIVE	Physics and Engineering Elective Prerequisites vary by course	3	ELECTIVE	Physics and Engineering Elective Prerequisites vary by course	3
	American Diversity/International Course	3		American Diversity/International Course	3
	Total Credits	16		Total Credits	16
Fourth Year – Fall Semester			Fourth Year – Spring Semester		
PHYS 492	Senior Research Junior or Senior Standing or Permission	1	PHYS 411	Advanced Physics Lab (Spring only) PHYS 305 or permission	4
PHYS 400+	Physics Elective (400+) Prerequisites vary by course	3	PHYS 492	Senior Research Junior or Senior Standing or Permission	1
ELECTIVE	UPDV Physics and Engineering Elective Prerequisites vary by course	3	PHYS 400+	Physics Elective (400+) Prerequisites vary by course	3
ELECTIVES	Physics and Engineering Electives Prerequisites vary by course	6	ELECTIVE	UPDV Physics and Engineering Elective Prerequisites vary by course	3
	Humanities/Social Science Course	3	ELECTIVE	Physics and Engineering Electives Prerequisites vary by course	3
	Total Credits	16		Total Credits	14