

# Bachelor of Arts Degree (proposed) - Catalog 143 (2020 – 2021)

## Freshman Year

First Semester	(Th-Pr)	Cr	Second Semester	(Th-Pr)	Cr
PHYS 101 Topics in Cont. Physics <sup>1</sup>	(1-0)	1	PHYS 206 Newtonian Mech. for Engr. and Sci. <sup>1</sup>	(3-0)	3
MATH 171 Analytic Geom. and Calculus <sup>1</sup>	(4-0)	4	PHYS 226 Physics of Motion Lab for Sci. <sup>1</sup>	(0-1)	1
CHEM 107 Gen. Chem. for Engr. Students <sup>1</sup>	(3-0)	3	MATH 172 Calculus <sup>1</sup>	(4-0)	4
CHEM 117 Gen. Chem. for Engr. Lab <sup>1</sup>	(0-3)	1	Language, Philosophy and Culture elective <sup>2</sup>	(3-0)	3
ENGL 104 Comp. and Rhetoric	(3-0)	3	HIST 106 History of the U.S. <sup>2</sup>	(3-0)	3
HIST 105 History of the U.S. <sup>2</sup>	(3-0)	3			
		15			14

## Sophomore Year

First Semester	(Th-Pr)	Cr	Second Semester	(Th-Pr)	Cr
PHYS 207 Elect. & Mag. for Engr. and Sci. <sup>1</sup>	(3-0)	3	PHYS 225 Electronic Circuits	(1-4)	3
PHYS 227 Elect. & Mag. Lab for Sci. <sup>1</sup>	(0-3)	1	PHYS 309 Modern Physics <sup>1</sup>	(3-0)	3
PHYS 221 Optics and Thermal Physics <sup>1</sup>	(3-0)	3	PHYS 331 Theoretical Methods I <sup>1</sup>	(3-0)	3
MATH 221 Several Variable Calculus <sup>1</sup>	(4-0)	4	Elective <sup>3</sup>		7
MATH 308 Differential Equations <sup>1</sup>	(3-0)	3			
		14			16

## Junior Year

First Semester	(Th-Pr)	Cr	Second Semester	(Th-Pr)	Cr
PHYS 302 Adv. Mechanics I	(3-0)	3	PHYS 327 Experimental Physics <sup>5</sup>	(1-2)	2
PHYS 304 Adv. Elect. and Magn. I	(3-0)	3	PHYS 328 Experimental Physics II <sup>5</sup>	(1-1)	1
PHYS 332 Theoretical Methods II	(3-0)	3	PHYS 412 Quantum Mechanics I	(3-0)	3
Social and Behavioral Sciences elective <sup>2</sup>	(3-0)	3	Communication elective <sup>4</sup>		3
POLS 206 American Nat'l. Govt.		3	POLS 207 State and Local Govt.		3
			Electives <sup>3</sup>		3
		15			15

## Senior Year

First Semester	(Th-Pr)	Cr	Second Semester	(Th-Pr)	Cr
Science or Technical elective <sup>7</sup>	(3-0)	3	PHYS 401 Computational Physics <sup>6</sup>	(3-0)	3
Electives <sup>3</sup>		13	Creative Arts elective <sup>2</sup>		3
			Electives <sup>3</sup>		9
		16			15

- NOTES:
1. A physics major must complete the foundation courses (PHYS 101, 206/226, 207/227, 309, 331, CHEM 107/117, MATH 171, 172, 221, 308) with a grade of 'C' or better and have a 2.0 cumulative GPR before taking non-foundation upper-level physics courses.
  2. Any course in this category from the approved University Core Curriculum list of courses.
  3. A minor is required and, along with other free electives, should be chosen in consultation with the student's advisor. Three hours must be in the area of International and Cultural Diversity, and three hours must be in the area of Cultural Discourse. These may be in addition to other University Core Curriculum courses, or if a course in this category satisfies another area of the Core, it can be used to meet both requirements. Electives can be selected from any 100 - 499 course not used elsewhere, except ENGL 103; MATH 100 - 148, 165-166, 365-366; PHYS 201-202, 208, 218.
  4. Any course in this category from the approved University Core Communication list of courses, except THAR 407.
  5. PHYS 327 is an approved W course. PHYS 328 is an approved C course.
  6. To register for PHYS 401 a student must be able to program in a high level language.
  7. Any upper-division course within the College of Science, College of Geosciences or College of Engineering (except 485/491).