

**College of Arts and Sciences  
Department of Physics  
Bachelor of Arts Curriculum**

*Freshman Year:*

<i>Semester 1:</i>	<b>CR</b>	<i>Semester 2:</i>	<b>CR</b>
CHEM 1110/1115 General Chemistry I/Lab	4	PHYS 1610 Engineering Physics I	3
ENGL1900 or 1940 Advanced Strategies of Rhetoric & Research or Advanced Writing	3	PHYS 1620 Engineering Physics I Laboratory	1
MATH 1510 Calculus I	4	MATH 1520 Calculus II	4
HIST 1110 Origins of the Modern World to 1600	3	Literature 2000 Level Course	3
PHYS 1110 Introduction to Physics	1	HIST 1120 Origins of the Modern World 1600+	3
		CSCI 1060 Intro. to CS: Scientific Programming	3
<b>Total Credit Hours</b>	<b>15</b>	<b>Total Credit Hours</b>	<b>17</b>

*Sophomore Year:*

<i>Semester 1:</i>	<b>CR</b>	<i>Semester 2:</i>	<b>CR</b>
PHYS 1630 Engineering Physics II	3	PHYS 2610 Modern Physics	3
PHYS 1640 Engineering Physics II Laboratory	1	PHYS 2620 Modern Physics Laboratory	1
MATH 2530 Calculus III	4	PHYS 3110 Classical Mechanics	3
PHIL 1050 Intro. to Philosophy: Self & Reality	3	MATH 2660 Principles of Mathematics	3
Social Science	3	THEO 1000 Theological Foundations	3
Foreign Language	3	Foreign Language	3
<b>Total Credit Hours</b>	<b>17</b>	<b>Total Credit Hours</b>	<b>16</b>

*Junior Year:*

<i>Semester 1:</i>	<b>CR</b>	<i>Semester 2:</i>	<b>CR</b>
Cultural Diversity – U.S. Diversity	3	PHYS 4210 Electricity & Magnetism I	3
PHYS Upper Level Course	3	PHYS Upper Level Course	3
Literature 3000 or 4000 Level Course	3	MATH 3120 Introduction to Linear Algebra	3
MATH 3550 Differential Equations I	3	THEO 2000 Level Course	3
PHIL 2050 Ethics	3	Social Science	3
<b>Total Credit Hours</b>	<b>15</b>	<b>Total Credit Hours</b>	<b>15</b>

*Senior Year:*

<i>Semester 1:</i>	<b>CR</b>	<i>Semester 2:</i>	<b>CR</b>
PHYS 4610 Quantum Mechanics	3	Open Elective	3
Open Elective	3	PHYS 4880 Senior Inquiry	3
MATH 4310 Introduction to Complex Variables	3	Cultural Diversity – Global Citizenship	3
PHIL 3000 or 4000 Level Course	3	THEO 3000 or 4000 Level Course	3
Fine & Performing Arts	3	Open Elective	3
<b>Total Credit Hours</b>	<b>15</b>	<b>Total Credit Hours</b>	<b>15</b>

**Total Credit Hours: 125 (122 required)**

**Requirements of the B. A. Degree:**

CHEM 1110/1115 General Chemistry/Lab \_\_\_\_\_  
MATH 1510 Calculus I \_\_\_\_\_  
MATH 1520 Calculus II \_\_\_\_\_  
MATH 2530 Calculus III \_\_\_\_\_  
MATH 2660 Principles of Mathematics \_\_\_\_\_  
MATH 3120 Introduction to Linear Algebra \_\_\_\_\_  
MATH 3550 Differential Equations I \_\_\_\_\_  
MATH 4310 Introduction to Complex Variables \_\_\_\_\_

PHYS 1110 Introduction to Physics \_\_\_\_\_  
PHYS 1610 Engineering Physics I \_\_\_\_\_  
PHYS 1620 Engineering Physics I Lab \_\_\_\_\_  
PHYS 1630 Engineering Physics II \_\_\_\_\_  
PHYS 1640 Engineering Physics II Lab \_\_\_\_\_  
PHYS 2610 Modern Physics \_\_\_\_\_  
PHYS 2620 Modern Physics Lab \_\_\_\_\_  
PHYS 3110 Classical Mechanics \_\_\_\_\_  
PHYS 4210 Electricity & Magnetism I \_\_\_\_\_  
PHYS 4610 Quantum Mechanics \_\_\_\_\_  
PHYS 4880 Senior Inquiry \_\_\_\_\_

**Physics Minor (18 Cr.)**

PHYS 1610-1640  
PHYS 2610 (with lab)  
and any two upper  
division courses

**Two additional courses selected from the following list:**

PHYS 3120 Advanced Classical Mechanics \_\_\_\_\_  
PHYS 3310 Optics/Lab \_\_\_\_\_  
PHYS 3410 Thermodynamics & Statistical Mechanics \_\_\_\_\_  
PHYS 3510 Analog & Digital Electronics/Lab \_\_\_\_\_  
PHYS 3610 Modern Physics II \_\_\_\_\_  
PHYS 4010 Nanoscience and Nanofabrication Frontiers \_\_\_\_\_  
PHYS 4020 Experimental Physics \_\_\_\_\_  
PHYS 4220 Electricity & Magnetism II \_\_\_\_\_  
PHYS 4620 Application of Quantum Mechanics \_\_\_\_\_

**Recommended:**

CSCI 1060 Intro. to CS: Scientific Programming \_\_\_\_\_

**Core Curriculum Requirements:**

Foundations of Discourse (ENGL1900 or 1940) \_\_\_\_\_  
Foreign Language (2 courses) \_\_\_\_\_  
Cultural Diversity (2 courses – US Divers. & Global Citizen.) \_\_\_\_\_  
Fine & Performing Arts (1 course) \_\_\_\_\_  
Literature (2 courses) \_\_\_\_\_  
History (2 courses; HIST 1110 & HIST 1120) \_\_\_\_\_  
Philosophy (3 courses; PHIL 1050, PHIL 2050, Level 3000) \_\_\_\_\_  
Theology (3 courses; THEO 1000, Level 2000, Level 3000) \_\_\_\_\_  
Social Science (2 courses) \_\_\_\_\_

**Open Electives:**

Three courses \_\_\_\_\_