

Applied Physics Major Courses (65 - 66 credits)

Required Major Courses (41- 42 credits)

- (4) PHYS 17200 - Modern Mechanics - ( also satisfies Science Selective for core and CoS teambuilding experience requirement) CC
(4) PHYS 27200 - Electric and Magnetic Interactions ( also satisfies Science Selective for core) CC
(4-5) Calculus III Option - Select from MA 26100, MA 27101 (satisfies Quantitative Reasoning for core)
(3) PHYS 30600 (fall) Math Methods of Physics I
(3) PHYS 30700 (spring) Math Methods of Physics II
(1) PHYS 31000 (fall) Intermediate Mechanics
(4) PHYS 33000 (fall) Intermediate Electricity & Magnetism
(4) PHYS 34000 Modern Physics Lab
(3) PHYS 34400 (fall) Modern Physics
(3) PHYS 36000 (spring) Quantum Mechanics
(3) PHYS 42200 (spring) Waves & Oscillations
(2) PHYS 45000 Intermediate Laboratory
(3) PHYS 51500 (spring)- Thermal & Statistical Physics

Major Selective\* - (24 credits - in chosen applied area(s) approved by the Physics and Astronomy Department)

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Other Departmental /Program Course Requirements (37-66 credits)

- (3-4) First Year Composition Option (satisfies Written Communication and Information Literacy for core)
(0-3) Technical Writing Option (Select courses COULD satisfy Oral Communication for core)
(0-3) Technical Presenting Option (Select courses COULD satisfy Oral Communication for core)
(0-4) Teambuilding and Collaboration Experience
(0-4) Language I Option
(0-4) Language II Option
(0-4) Language III/Culture/Diversity Option (Select courses COULD satisfy Human Cultures Humanities for core)
(3) Great Issues Option (satisfies one of the Science/Engineering requirements for Physics Selective)
(0-3) Multidisciplinary Experience (Select courses could satisfy Science, Technology & Society Selective for core)
(4) CHM 11500 - General Chemistry I - (satisfies Science Selective for core)
(4) CHM 11600 - General Chemistry II (satisfies Science Selective for core)
(4-5) Calculus I Option - Select from MA 16100, MA 16500 (satisfies Quantitative Reasoning for core)
(4-5) Calculus II Option - Select from MA 16200, MA 16600 (satisfies Quantitative Reasoning for core)
(3) Statistics Option
(3-4) Computing Option
(3) General Education I Option (Select courses could satisfy Human Cultures Humanities for core)
(3) General Education II Option (Select courses could satisfy Human Cultures Humanities for core)
(3) General Education III Option (Select courses could satisfy Humanities Behavioral/Social Science for core)

Free Electives (1- 18 credits)

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University Core Requirements

Table with 4 columns: Requirement Name, checkbox, line, checkbox, line. Rows include Human Cultures Humanities, Science, Technology & Society Selective, Human Cultures Behavioral/Social Science, Written Communication, Information Literacy, Oral Communication, Science Selective, Quantitative Reasoning, Science Selective.

The student is ultimately responsible for knowing and completing all degree requirements. Degree Works is knowledge source for specific requirements and completion

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## Applied Physics

### Suggested Arrangement of Courses:

Credits	Fall 1st Year	Prerequisite	Credits	Spring 1st Year	Prerequisite
4	PHYS 17200 (Honors sections)* <sup>cc</sup>	ALEKS 85%	4	PHYS 27200 (Honors sections)* <sup>cc</sup>	PHYS 17200 + Coreq: Calculus II
4-5	Calculus I Option *	ALEKS 85%	4	CHM 11600*	CHM 11500
4	CHM 11500*	ALEKS 75%	4-5	Calculus II Option *	Calculus I C- or higher
3-4	First Year Composition Option		3-4	Language I Option	
0	Teambuilding and Collaboration Experience				
<b>15-17</b>			<b>15-17</b>		

Credits	Fall 2nd Year	Prerequisite	Credits	Spring 2nd Year	Prerequisite
3	PHYS 30600	PHYS 272 +coreq Calculus III	3	PHYS 30700	PHYS 272 +coreq MA 261
1	PHYS 34000	coreq Phys 344	3	PHYS 42200	PHYS 272
4	PHYS 34400	PHYS 272 + coreq CalculusIII	3 - 4	Language III/Culture/Diversity Option	Language 102/ usually no pre-req
4 - 5	Calculus III Option *	Calculus II C- or higher	3	Statistics Option	Prerequisites may vary
3 - 4	Language II Option	Language 101	3	General Education I Option (Humanities)*	
			1	Free Elective (PHYS 23500)	
<b>15-17</b>			<b>16-17</b>		

Credits	Fall 3rd Year	Prerequisite	Credits	Spring 3rd Year	Prerequisite
4	PHYS 31000	PHYS 272 + coreq CalculusIII	3	PHYS 36000	(PHYS 310 or 330) + PHYS 344
3	PHYS 33000	PHYS 272 + coreq CalculusIII	3	PHYS 51500	Coreq PHYS 310 + 344 + 360 + 330
2	PHYS 45000	PHYS 42200	3	Major Selective	Prerequisites may vary
3-6	Technical Writing Option and Technical Presenting Option (COM 21700*)		3	Major Selective	Prerequisites may vary
3 - 4	Computing Option ( CS 15800)	Calculus I coreq	3	General Education II Option(Humanities)*	
<b>15 -19</b>			<b>15</b>		

Credits	Fall 4th Year	Prerequisite	Credits	Spring 4th Year	Prerequisite
3	Major Selective	Prerequisites may vary	3	Major Selective	Prerequisites may vary
3	Major Selective	Prerequisites may vary	3	Major Selective	Prerequisites may vary
3	Major Selective	Prerequisites may vary	3	Major Selective	Prerequisites may vary
3	Great Issues Option	Jr/Sr Standing; may require COM or ENGL	3	General Education III Option (Behav./Social Science)*	
3	Free Electives	Prerequisites may vary	1-3	Multidisciplinary Experience (STS)*	
			2	Free Electives	Prerequisites may vary
<b>15</b>			<b>15 - 17</b>		

<sup>cc</sup> Identified as a critical course. Student should earn minimum of a B- see advisor for further details.

\* Satisfies a University Core Requirement; Courses in ( ) are recommended.

**120 semester credits required for Bachelor of Science degree.**

**2.0 Graduation GPA required for Bachelor of Science degree.**

**2.0 average in PHYS/ASTR classes required to graduate.**

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