

Major Requirements for a B.S in Applied Physics with a concentration in Computational Physics

Requirements listed are those in the 2018-2019 catalog. The required courses for the major should be taken for a letter grade. All courses are required unless otherwise indicated.

Preparatory Subject Matter

Course	No	Units	Qtr	Grade	GP
PHY	9A	5	F,S		
	9B	5	F,W		
	9C	5	W,S		
	9D	4	F,S		
	or				
PHY	9HA	5	F		
	9HB	5	W		
	9HC	5	S		
	9HD	5	F		
	9HE	5	W		
	and				
MAT	21A	4	F,W,S		
	21B	4	F,W,S		
	21C	4	F,W,S		
	21D	4	F,W,S		
	22A	3	F,W,S		
	22B	3	F,W,S		
ECS	32A*	4	F,W,S		
	36A	4	F,W,S		
	36B	4	F,W,S		

Core Subject Matter

Course	No	Units	Qtr	Grade	GP
PHY	104A	4	F		
	105A	4	F		
	110A	4	W		
	110B	4	S		
	112	4	F		
	115A	4	S		
	116A	4	F		
	116B	4	W		

PHY 80 will be a pre-requisite for PHY 122A/B starting W2020

Course not offered every year

*Recommended Course

Concentration Courses

Course	No	Units	Qtr	Grade	GP
PHY	104B	4	W		
	116C	4	S		
ECS	36C	4	F,W,S		
	122A	4	F,W,S		

Additional Electives

Choose three courses from the following, **one each** from ECS, MAT, and PHY.

Course	No	Units	Qtr	Grade	GP
ECS	120	4	F,W,S		
or					
	122B	4	F		
or					
	130	4	S		
MAT	128A	4	F		
or					
	128B	4	W		
or					
	128C	4	S		
PHY	105C	4	S#		
or					
	115B	4	F		
or					
	140A	4	W		

ECS 36A prerequisites:

Prior experience with basic programming concepts (variable, loops, conditional statements) required; must satisfy computer science placement exam, or C- or better in ECS 32A.

Major GPA

Overall	
Upper Div	

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Suggested Schedule

The core major courses as well as the minimum concentration courses are underlined below. Electives are in italics. Choose 3 in consultation with the major advisor.

	Fall	Winter	Spring
Junior	<u>PHY104A (4)</u> <u>PHY105A (4)</u> <u>PHY116A (4)*</u>	<u>PHY110A (4)</u> <u>PHY116B (4)</u> <u>ECS36C+ (4)</u> <i>ECS120 (4)</i>	<u>PHY110B (4)</u> <u>PHY115A (4)</u> <u>ECS122A+ (4)</u>
Senior	<u>PHY112 (4)</u> <i>PHY115B (4)</i> <i>ECS122B (4)</i> <i>MAT128A (4)</i>	<u>PHY104B (4)</u> <i>PHY140A (4)</i> <i>MAT128B (4)</i>	<u>PHY116C (4)</u> <i>MAT128C (4)</i> <i>PHY105C (4)</i> <i>ECS130 (4)</i>

Core, Concentration and Addtl. Electives Total _____

+ Also offered other quarters.

60 Total Units

* *Physics 116A is recommended for Sophomore year students in the 9H series.*

Course Substitution/ Waiver requests should be submitted well in advance, preferably prior to enrollment in the course.

1. Student must first speak with a faculty advisor.
2. Faculty advisor submits course substitution/waiver request to the Undergraduate Curriculum Committee for approval.

Advisor please Initial & date substitution/waiver requests and submit to the Chair of the Undergraduate Curriculum Committee.

Approval: _____ (Required for delcaration of major & any subsequent substitutions)
Physics Advisor Date

Approval: _____ (Required only if there are substitutions.)
Departmental Approval Date

Applied Physics Advisor For
Computational Physics Concentration:

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