## **B.A. in PHYSICS** Suggested 4-Year Academic Flowchart



Lindated 3/10/2020

FRESHMAN			SOPHOMORE			JUNIOR			SENIOR		
Fall	Winter	Spring	Fall	Winter	Spring	Fall	Winter	Spring	Fall	Winter	Spring
	General Physics IA	General Physics II	General Physics III	Modern Physics I	Modern Physics II	Classical Mechanics I	Thermal Physics I	Quantum Mechanics I	Electromagnetic Fields & Waves I	Upper Division Elective	Upper Division Elective
	PHYS 141 (4) <sup>2</sup> (MATH 141 w/min C-; MATH 142 or 182; Recom: HS physics)	PHYS 132 (4) <sup>2</sup> (PHYS 131 or 141 or HNRS 131) [B1 & B3]	PHYS 133 (4) <sup>2</sup> (PHYS 131, 141, or HNRS 131; MATH 142. Recom: MATH 241)	PHYS 211 (4) (PHYS 132; 133; MATH 241; Recom: MATH 242 or 244)	PHYS 212 (4) (PHYS 211)	PHYS 302 (4) (PHYS 131 or 141; MATH 241; 242 or 244)	PHYS 301 (4) (PHYS 211)	PHYS 405 (4) (PHYS 212; 302; 320 or 322; MATH 241; 242 or 244)	PHYS 408 (4) (PHYS 133; MATH 304 or PHYS 320)	(4) <sup>4</sup> *	(4) <sup>4</sup> *
Calculus I	Calculus II	Calculus III	Calculus IV	Linear Algebra I	Differential Equations I	Methods of Theoretical Physics I	Upper Division Elective	Upper Division Elective	Upper Division Elective	Senior Project	Upper Division Elective
MATH 141 (4) <sup>1</sup>	MATH 142 (4) <sup>1</sup>	MATH 143 (4) <sup>1</sup>	MATH 241 (4)	MATH 206 (4)	MATH 242 (4)	PHYS 320 (4)	(4) <sup>4</sup>	(3-4) <sup>3.4</sup>	(2-4)4	PHYS 461 (2)	(1-4)4
* [B4]	(MATH 142 w/min C- or Instr. Consent) [GE Elective]	(MATH 142 w/min C- or Instr. Consent)	(MATH 143)	(MATH 143)	(MATH 206 and MATH 241)	(PHYS 211; MATH 242 or 244)	*	*	Ψ.	(Instructor Consent)	*
				Choose	e One:				Upper Division		
Expository Writing ENGL 133/134 (4)** [A2]  Can be taken anytime during Freshman Year				Electronics and Instrumentation PHYS 206 (4)*	Physics on the Computer PHYS 202 (4)*				Elective		
Oral Communication COMS 101/102 (4)** [A1]  Can be taken anytime during Freshman Year			GE (4)	GE (4) **		GE (4)	GE (4)	GE (4)		GE (4)	GE (4) **
Call be tak											
GE (4) **	Reasoning, Argumentation, & Writing [A3] COMS 126; COMS/ENGL 145; ENGL 148; PHIL 126 (4)** (Completion of GE A2 with a C- or better) Can be taken anytime between Winter of Freshman and Winter of Sophomore Years.			Free Elective (4) <sup>5</sup>	Free Elective (4) <sup>5</sup>		Free Elective (4) <sup>5</sup>	GE (4) **	Free Elective (4) <sup>5</sup>	Free Elective (4) <sup>5</sup>	
	Can be taken a	nytime between Winter of	Freshman and Winter of So	pnomore rears.		Graduation	Writing Requirem	ent GWR*			
Free Elective (4) <sup>5</sup>	Free Elective (4) <sup>5</sup>	GE (4) **	GE (4) **	GE (4) **		(Students can attempt to fulfill the requirement after 90 earned units; students should complete the requirement before senior year)					
16	16	16	16	16	16	16	12	14-16	15-16	14	13-16
										TOTAL:	180
lotes:								Legend:			

## Notes:

## MOST GENERAL EDUCATION COURSES CAN BE TAKEN IN ANY ORDER AS LONG AS PREREQUISITES ARE MET

- \* Refer to current catalog for prerequisites.
- \*\* One course from each of the following GE areas must be completed: A1, A2, A3, B2, Upper-Division B, C1, C2, Lower-Division C Elective, Upper-Division C, D1, D2 (8), Upper-Division D, E, and a GE Elective. Upper-Division B, Upper-Division C, and Upper-Division D should be taken only after Junior standing is reached (90 units). Refer to online catalog for GE course selection, United States Cultural Pluralism (USCP) and Graduation Writing Requirement

- 1 Calculus workshops (MATH 151, 152, 153) are recommended. They require concurrent enrollment in the associated section of Calculus, and count toward free elective credit.
- <sup>2</sup> Supplemental Workshops (SCM 150) recommended in your first year. These courses will count for elective credit.

Major (92)

General Ed. (60)

Free Electives (28)

Course Title

Course # (Units)

(Prerequisite)

[GE Area]

<sup>&</sup>lt;sup>3</sup> HIST 350; PHIL 321, 323, 421. PHIL 321 or 323 will meet the Upper-Division C requirement; HIST 350 will meet the Upper-Division D requirement. If one of these is selected, increase your total free electives by 4 units.

<sup>&</sup>lt;sup>4</sup> Select at least one of the following: PHYS 323, PHYS 340, PHYS 341, PHYS 357, PHYS 417, PHYS 422, PHYS 423, PHYS 452, ASTR 444. Up to 4 units may be chosen from the following: HIST 350, PHIL 321, PHIL 323, PHIL 421. Total combined elective credit in PHYS 400, 404; ASTR 400, 404; GEOL 400, 404 limited to 8

<sup>&</sup>lt;sup>5</sup> Total 28 Free Elective units required for the major. CHEM 124 and 125 recommended.