

Physics B.S. Engineering Science Track	
Suggested Plan of Study Department of Physics and Astronomy	
Chairperson: K. Haglin Updated: 10/26/2021	
Physics Major Advisors Dr. Kevin Haglin 308-3718 klhaglin@stcloudstate.edu Dr. Zengqiang "John" Liu 308-3154 zliu@stcloudstate.edu Dr. Sneh Kalia 308-4285 skalia@stcloudstate.edu Dr. Steven Ratliff 308-3274 stratliff@stcloudstate.edu Dr. Annette Lee 308-2013 aslee@stcloudstate.edu Dr. John Sinko 308-4183 jesinko@stcloudstate.edu	
First Semester (15 cr)	Second Semester (15 cr)
PHYS 234 (5 cr) MATH 221 (4 cr) Liberal Education Goal Area (6 cr)	PHYS 235 (5 cr) MATH 222 (4 cr) CNA 267 (3 cr) or GENG 102 (3 cr) Liberal Education Goal Area (3 cr)
Third Semester (15 cr)	Fourth Semester (14 cr)
PHYS 328 (3 cr) PHYS 346 (3 cr) MATH 312 (4 cr) Liberal Education Goal Area (6 cr)	PHYS 329 (3 cr) ENGR 332 (3 cr) or CHEM 210 (4 cr) MATH 327 (3 cr) Liberal Education Goal Area (3 cr)
Fifth Semester (16 cr)	Sixth Semester (16-17 cr)
PHYS 334 or PHYS 431 (3 cr) MATH 321 (4 cr) PHYS 333 (3 cr) Liberal Education Goal Area (6 cr)	ENGR 332 (3 cr) or CHEM 210 (4 cr) PHYS 358 or PHYS 440 (4 cr) Liberal Education Goal Area (6 cr) Track Elective (3 cr)
Seventh Semester (15-17 cr)	Eighth Semester (15-17 cr)
PHYS 334 or PHYS 431 (3 cr.) PHYS 430 (2 cr) ENGR 335 (3 cr) or PHYS 415 (1 to 3 cr) Liberal Education Goal Area (4 cr) Track Elective (3 cr)	PHYS 358 or PHYS 440 (4 cr) PHYS 432 (2 cr) ENGR 335 (3 cr) or PHYS 415 (1 to 3 cr), Liberal Education Goal Area (3 cr) Track Elective (3 cr)

Notes:

The Engineering Science track requires the completion of at least 9 (nine) credits selected from PHYS 415, ENGR 335, 425, ECE 201, MME 243, 244. Since ENGR 332 is a pre-requisite of ENGR 425, ENGR 332 should be taken during the 4th semester if possible. You may take no more than 3 credits of PHYS 415.

Many Liberal Education Program (LEP) courses will satisfy more than one goal area. Students are encouraged to take courses that double-count in more than one goal area so they can take additional math/physics electives.

Special Note on Upper division Courses. Most upper division ASTR, ENGR, and PHYS courses are offered every other year. It is important that students check with the department to determine which year and semester a specific course will be offered. The table below provides a general indication as to when upper division courses are offered, but these may change during any given semester.

Every Semester	PHYS 234, 235
Every Fall	PHYS 328, 333, 346, 430,
Every Spring	PHYS 329, 432
Spring (Even Years)	ASTR 312, PHYS 358, 436
Spring (Odd Years)	ASTR 427, ENGR 332, 447, PHYS 440
Fall (Even Years)	ASTR 323, PHYS 334, 435

Fall (Odd Years) Demand	ASTR 311, ENGR 425, PHYS 431
	PHYS 415, 445, 450-455