B.S. Physics

Notes:
1. Math 112 (Calculus I) preparation is assumed in high school. If you studied differentiation and integration in high school, move on to Math 113.
2. If you want a more formal versus applied math preparation, and perhaps a math minor, take the math sequence on the right. It requires 1-2 more hours than the left track. Both tracks are good.
3. Senior Thesis is required; join research group as early as possible. Credit in Sr. year in 498R.
4. Physics 416, Writing in Physics, can replace Engl 316, and can help you write your thesis. Take it when your research is essentially complete.
5. Color code: blue = math & CS, orange = introductory sequence, purple = lab, yellow = careers, green = computational, red = upper level.

Suggested semester:

Freshman
1
- MATH 113 Calculus II (4.0 hr)

Sophomore
2
- MATH 213 + 215 Linear Alg -lab (2+1 hr)
- MATH 314 Calculus many variables (3.0 hr)
- PHYS 222 Modern Phys (3.0 hr)

Junior
3
- MATH 302 Math for Eng. 1 (4.0 hr)
- MATH 303 Math for Eng. 2 (4.0 hr)
- PHYS 220 Elec & Mag (4.0 hr)

Senior
4
- PHYS 230 Computational Physics 1 (1.0 hr)
- PHYS 302 Math for Eng. 2 (4.0 hr)

Other optional advanced courses (Prereqs)
- 399R Internship
- 427 Astrophysics (instructor’s consent)
- 461, 561 Acoustics (123, Math 334)
- 513R Special topics
- 545 Plasma Physics (321, 441)
- 571 Lasers and Atoms (451, 471)
- 581 Solid State Physics (222)
- 583 Nanostructures & Surfaces (222)
- 585 Thin-film Physics (222)
- 586 Electron Microscopy
- 587 Semiconductor devices (581)
- 601,2 Math. Physics (Math 318, 334)

Other courses rec’ed by alumni
- Stat 201 (Stat for Eng. & Sci)
- Math 352 (Complex Analysis)
- Math 410 (Numerical Methods)
- Mech Eng 273 (Intro to Sci Comp & Comp Aid Eng)