**The Math and Statistics list and Technical course list is found in the course catalog and the Canvas advising site. Technical courses may vary by credits but must total 6 or more. Courses cannot count for both Math/Statistics (substituting for PH 327) and technical electives.**

Note on free electives: The Physics Department encourages students focus coursework in the free electives to additional coursework that will strengthen the degree (which may mean additional technical electives or coursework towards a STEM minor or second STEM major). This may shift placement earlier in the curriculum, increasing the credit count or shifting other requirements to a later term. If a number is shown on the bottom right of a course, it indicates the semester a course must be completed in order for the student to stay on a 4-year graduation plan.

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**Key**

- Course name
- Course No. (credits)
- Deadline term for a corequisite
- **Major Core Course offered only in Fall Term**
- **Major Core Course offered only in Spring Term**
- Strongly recommended, but not required
- Course requires a corequisite (arrow enters from side)
- Course required as co- or prerequisite (arrow enters from rear)

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* Novice programmers should take CS 163 (Java). Experienced programmers should take either CS 164 (Java) or the three one-credit courses 15S/6/7 (five week courses on Unix and C intended to be taken sequentially in one term.

* MATH 345 (3) Differential Equations may be substituted but requires some linear equation coursework as a prerequisite (either MATH 229 or 369).

Note that the Physics Department is currently not offering PH327, so you will need two courses from the Math/Stat list. We recommend MATH 369 + MATH 332 prior to PH 451 Quantum Mechanics I, so they are shown as options here.

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**Total Hours:** 120+

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**Figure:**

- **Freshman**
  - PH 142 (5), Phys. Sci. Engr. II
  - MATH 160 (4), Calculus I
  - MATH 161 (4), Calculus II
  - Computer Programming (3 or 4)*
  - A U C C  Cat. 3B
  - Arts/Hum. Course 1 (3)

- **Sophomore**
  - PH 245 (3), Electronics
  - PH 314 (4), Modern Phys.
  - PH 341 (4), Mechanics
  - PH 351 (4), E&M
  - PH 293 (1), Selected Topics
  - PH 315 (2), Modern Phys. Lab
  - MATH 261 (4), Calculus III
  - MATH 262 (4), Calculus IV
  - CHEM 111 (4), General Chemistry I
  - CHEM 112 (1), Gen. Chem. Lab. I
  - AUCC Cat. 3E
  - Glob./Cult. Awareness Course (3)
  - AUCC Cat. 3D
  - Hist. Perspect. Course (3)
  - AUCC Cat. 3C
  - Soc./Behav. Sci. Course (3)
  - CO 300 or other select AUCC Cat. 2 Course (3)*

- **Junior**
  - PH 353 (4), Optics & Waves
  - PH 361 (3), Physical Thermo.
  - MATH 369 (3), Linear Alg. I or other from Math/Stat list
  - MATH 332 (3), PDE’s or other from Math/Stat list
  - Technical Course (3)**

- **Senior**
  - PH 362 (3), Stat. Phys
  - PH 462 (3), Adv. Lab
  - PH 451 (3), Quantum Mechanics I
  - PH 452 (3), Quantum Mechanics II
  - PH 425 (2), Adv. Lab
  - PH 492 (1), Seminar
  - Technical Course (3)**

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**Legend:**

- **KEY**
  - Course name
  - Course No. (credits)
  - Deadline term for a corequisite
  - **Major Core Course offered only in Fall Term**
  - **Major Core Course offered only in Spring Term**
  - Strongly recommended, but not required
  - Course requires a corequisite (arrow enters from side)
  - Course required as co- or prerequisite (arrow enters from rear)

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**Revision History:**

- Revised August 27, 2018