Physics (BS): Sample Curriculum, Applied Physics Concentration

**Senior**
- PH 451 (3) Quantum Mechanics I
- PH 492 (1) Seminar

**Field Concentration Courses**
- Field Concentration Course (3)**
- Field Concentration Course (3)**
- Field Concentration Course (3)**

**Important Notes**
- The student must maintain a 2.0 GPA and have a C- or better in all the Major Core Courses and All-University Core Curriculum (AUCC) courses.
- The pre-approved field concentrations are:
  - Biophysics
  - Chemistry
  - Computers
  - Electronics, Semiconductors and Optics
  - Geophysics
  - Materials and Fluids
  - Medical Physics

**Note on free electives**: The Physics Department encourages students to choose free electives to focus on a desired career path (which may mean additional Tech/Field courses or coursework towards a minor or second major). This or prerequisites needed for chosen Tech/Field courses may shift their placement earlier than shown.

**Total Hours:** 120+

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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 155/6/7 (five week courses on Unix and C intended to be taken sequentially in one term).

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

** If PH 327 is not taken, the student needs 3+ credits from Tech List 1 and 3+ credits from Tech List 2 (courses on both lists will only count once). Physics strongly recommends either PH 327 or MATH 369 + MATH 332 (Lin.Alg. 1 + PDE’s) be taken prior to PH 451. The Technical Lists are found in the catalog.

**Recommended Text:**
- No specific textbook is required. Textbooks for major course(s) are listed in the catalog.
- Some courses have corequisites or co-requisites. Students must consult with an advisor for guidance.

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**Credits Breakdown**
- Freshman: 15 credits
- Sophomore: 16 credits
- Junior: 13 credits
- Senior: 16 credits

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* Revised November 15, 2018