

Four-Year Plan for B.S. Degree in Physics, Option II with Emphasis in Biology
Tennessee Technological University

| First Year | | Fall | Spring |
|-------------------------------------|--|------|--------|
| ENGL 1010-1020 | Writing I, II | 3 | 3 |
| PHYS 1020 or MSCI 1020 ¹ | First-year Connections | 1 | |
| PHYS 1137 | Frontiers of Physics | 1 | |
| MATH 1910-1920 | Calculus I-II | 4 | 4 |
| CHEM 1110-1120 | General Chemistry I-II | 4 | 4 |
| PHYS 2110 | Calculus-based Physics I | | 4 |
| Humanities/Fine Arts | | 3 | |
| Total | | 16 | 15 |
| Second Year | | Fall | Spring |
| ENGL 2130/2235/2330 | Literature | 3 | |
| MATH 2110 | Calculus III | 4 | |
| MATH 2120 | Differential Equations | | 3 |
| PHYS 2120 | Calculus-based Physics II | 4 | |
| PHYS 2420 | Modern Physics | | 3 |
| PHYS 2920 | Mathematical Physics | | 3 |
| CSC 1300 | Intro to Problem Solving & Computer Programming | 4 | |
| Humanities/Fine Arts | | | 3 |
| PC 2500 | Communicating in the Professions | | 3 |
| Total | | 15 | 15 |
| Third Year | | Fall | Spring |
| PHYS 3610 | Classical Mechanics | 3 | |
| PHYS 4610-4620 | Classical Elec. and Magnetism | 3 | 3 |
| PHYS 3120 | Statistical Thermal Physics | | 3 |
| PHYS 3810 | Quantum Mechanics I | | 3 |
| MATH 3470 | Intro. Prob. and Statistics | 3 | |
| MATH 4510 | Adv. Math for Engineers | 3 | |
| BIOL 1105 | Foundations of Biology | 4 | |
| BIOL 1114 | General Zoology | | 4 |
| Social/Behavioral Sciences | | | 3 |
| Total | | 16 | 16 |
| Fourth Year | | Fall | Spring |
| PHYS 4711 | Advanced Experimental Physics | 2 | |
| PHYS 3820 | Quantum Mechanics II | 3 | |
| PHYS 4730 | Research Planning | 1 | |
| PHYS 4740 | Research | | 2 |
| BIOL 3140 ² | Cellular Biology | 4 | |
| BIOL 3200 ² | General Microbiology | | 4 |
| HIST 2010-2020 | American History I-II | 3 | 3 |
| Social/Behavioral Sciences | | | 3 |
| Elective | | | 3 |
| Total | | 13 | 15 |

¹Not part of 120-hour curriculum

²Other Biology courses may be chosen as long as 8 upper-division hours in Biology are included.