

# BS IN PHYSICS COURSE FLOWCHART

| Freshman   |  | Sophomore  |   | Junior   |   | Senior   |  |
|--|--|--|---|--|---|--|--|
| Fall (14 hrs)  | Spring (15 hrs)  | Fall (14 hrs)  | Spring (16 hrs)   | Fall (14 hrs)  | Spring (18 hrs)   | Fall (16 hrs)  | Spring (13 hrs)  |
| ENGL 1301<br>(previously 1303)<br>1st Year Writing I<br>(See course placement<br>criteria web page)                                      | ENGL 1302<br>(previously 1304)<br>1st Year Writing II<br>(ENGL 1301 or equiv)  | HIST 1377<br><i>US Hist. I</i><br>(No Prerequisite)  | HIST 1378<br><i>US Hist. II</i><br>(No Prerequisite)  | GOVT 2305<br>(prev. POLS 1336)<br><i>US &amp; TX Politics</i><br>(No Prerequisite)   | GOVT 2306<br>(prev. POLS 1337)<br><i>US Gov't</i><br>(No Prerequisite)        | Life and Physical<br>Sciences<br>*(See your advisor)*<br>3 hours   | NSM Capstone<br>(Hours to go towards your<br>capstone option, example<br>is a minor)<br>3 hours<br><b>OR</b><br>Free Elective<br>3 hours |
| Social and Behavioral<br>Science<br>(See core approved web<br>page)***<br>3 hours  | CHEM 1312<br>(previously 1332)<br><i>Fund. of Chem. II</i><br>(CHEM 1311)  | MATH 2318<br>(previously 2331)<br><i>Linear Algebra</i><br>(Credit or concurrent<br>enrollment in MATH<br>2414)      | Language, Phil and<br>Culture<br>(See core approved web<br>page)***<br>3 hours  | MATH 3363<br><i>Intro. PDE</i><br>(MATH 2415 & either<br>MATH 3321 or MATH<br>3331)<br><i>Spring and Fall</i><br><b>OR</b><br><i>Math 4397 Math Methods<br/>in Physics I</i><br><b>Fall Only</b> | Creative Arts<br>(See core approved<br>web page)***<br>3 hours                | PHYS Elective<br>(3000 or 4000 level)<br>3 hours   |  |
| CHEM 1311<br>(previously 1331)<br><i>Fund. Of Chem. I</i><br>(MATH 1314 & HS<br>Chemistry or CHEM<br>1305)                               | CHEM 1112<br><i>Fund. Of Chem. Lab II</i><br>(Credit or concurrent<br>enrollment in CHEM<br>1312)                    | MATH 2415<br>(previously 2433)<br><i>Calculus III</i><br>(MATH 2414)   | MATH 3331<br><i>Differential Eqn.</i><br>(MATH 2415 &<br>MATH 2318)   | PHYS 3309<br><i>Intermediate Mech.</i><br>(MATH 3331 & PHYS<br>2326)<br><b>Fall and Spring</b>   | Free Elective<br>(computer course<br>recommended)<br>3 hours                  | NSM Capstone<br>(Hours to go towards your<br>capstone option, example is<br>a minor)<br>3 hours  | Free Elective<br>4 hour  |
| CHEM 1111<br><i>Fund. of Chem. Lab I</i><br>(Credit or concurrent<br>enrollment in CHEM<br>1311)   | MATH 2414<br>(previously 1432)<br><i>Calculus II</i><br>(MATH 2413)  | PHYS 2326<br>(previously 1322)<br><i>Univ. of Physics II</i><br>(Credit or concurrent<br>enrollment in MATH<br>2415) | PHYS 3110<br><i>Adv. Lab. Analysis</i><br>(PHYS 2126 & PHYS<br>2326)<br><b>Spring and Fall</b>  | PHYS 3316<br>Quantum Mechanics<br>(PHYS 3315)<br><b>Spring and Fall</b>  | MATH 3364<br><i>Complex Analysis</i><br>(MATH 2415)<br><i>Spring and Fall</i> | PHYS 4321<br><i>Inter. Elec. Theory I</i><br>(PHYS 2326 and MATH<br>3363 or MATH 4397 Math<br>Methods in Physics I)<br><b>Fall only</b>  | PHYS 4322<br><i>Inter. Elec. Theory II</i><br>(PHYS 4321)<br><b>Spring only</b>  |
| MATH 2413<br>(previously 1431)<br><i>Calculus I</i><br>(MPE score of 65 or<br>MATH 2312 or See<br>course placement criteria<br>web page) | PHYS 2325<br>(previously 1321)<br><i>Univ. Physics I</i><br>(Credit or concurrent<br>enrollment in MATH<br>2414)     | PHYS 2126<br>(previously 1122)<br><i>Physics Lab II</i><br>(Credit or concurrent<br>enrollment in PHYS<br>2326)      | PHYS 3315<br><i>Modern Physics</i><br>(PHYS 1301 and 1302, or<br>PHYS 2326, and credit or<br>concurrent enrollment in<br>MATH 3331)<br><b>Spring and Fall</b> | PHYS 3214<br><i>Adv. Lab II</i><br>(PHYS 2126, 2326, 3315,<br>and credit or concurrent<br>enrollment in PHYS 3110)<br><b>Spring and Fall</b>   | PHYS 3327<br><i>Thermal Physics</i><br>(PHYS 3309)<br><b>Fall and Spring</b>  | PHYS 3312 &<br>PHYS 3112<br><i>Modern Optics and Lab</i><br>(PHYS 2326 or, with consent<br>of instructor, PHYS 1302 &<br>MATH 2415; Credit or<br>concurrent enrollment in<br>PHYS 3110 & PHYS 3312)<br><b>Spring Only</b><br><b>OR</b><br>PHYS 4421<br><i>Elect. Devices &amp; App.</i><br>(PHYS 2126)<br><b>Fall Only</b> | PHYS Elective<br>(3000 or 4000 level)<br>3 hours   |
|  | PHYS 2125<br>(previously 1121)<br><i>Univ. Physics Lab I</i><br>(Credit or concurrent<br>enrollment in PHYS<br>2325) |  | PHYS 3313<br><i>Adv. Lab I</i><br>(PHYS 2126, PHYS<br>2326, and credit or<br>concurrent enrollment in<br>PHYS 3315 and 3110)<br><b>Spring and Fall</b>        |  | Life and Physical<br>Sciences<br>*(See your advisor)*<br>3 hours              |  |  |

\*\*\* Approved Core \*\*\* <https://www.uh.edu/academics/corecurriculum/>

\*\* FYI \*\* Math Minor complete with 3 hours of a 4000 level MATH course (Satisfies NSM Capstone)

\* Computer classes recommended

\* Meet with your advisor before registering for all classes

\* 120 total hours/ 36 advanced hours

\* 42 Physics hours (34 advanced Physics hours)

\* 2.0 Cumulative GPA, 2.0 Major GPA, and 2.0 Minor GPA

\* Last 30 hours must be taken at U of H

\* No more than 6 hrs in major course work below a C-