## COMPUTER SCIENCE, B.S. (ABINGTON)

**Begin Campus:** Any Penn State Campus

**End Campus:** Abington

### Suggested Academic Plan

The suggested academic plan(s) listed on this page are the plan(s) that are in effect during the 2021-22 academic year. To access previous years’ suggested academic plans, please visit the archive (https://bulletins.psu.edu/undergraduate/archive/) to view the appropriate Undergraduate Bulletin edition (Note: the archive only contain suggested academic plans beginning with the 2018-19 edition of the Undergraduate Bulletin).

**Computer Science, B.S. at Abington Campus**

The course series listed below provides only one of the many possible ways to move through this curriculum. The University may make changes in policies, procedures, educational offerings, and requirements at any time. This plan should be used in conjunction with your degree audit. The plan should be used in conjunction with your degree audit (accessible in LionPATH as either an academic plan or an academic report). Please consult with a Penn State academic adviser on a regular basis to develop and refine an academic plan that is appropriate for you.

### First Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 15 or 30H (GWS)‡</td>
<td>3</td>
<td>Fall</td>
</tr>
<tr>
<td>MATH 140 (GQ)†</td>
<td>4</td>
<td>Fall</td>
</tr>
<tr>
<td>Humanities (GH)</td>
<td>3</td>
<td>Fall</td>
</tr>
<tr>
<td>Social and Behavioral Science (GS)</td>
<td>3</td>
<td>Spring</td>
</tr>
<tr>
<td>Health and Physical Activity (GHW)</td>
<td>1.5</td>
<td>Spring</td>
</tr>
</tbody>
</table>

### Second Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts (GA)</td>
<td>3</td>
<td>Fall</td>
</tr>
<tr>
<td>Social and Behavioral Sciences (GS)</td>
<td>3</td>
<td>Fall</td>
</tr>
<tr>
<td>Natural Sciences (GN) (PHYS 212 recommended)</td>
<td>3-4</td>
<td>Fall</td>
</tr>
<tr>
<td>CMPSC 122*</td>
<td>3</td>
<td>Fall</td>
</tr>
<tr>
<td>CMPSC 360*</td>
<td>3</td>
<td>Fall</td>
</tr>
<tr>
<td>Health and Physical Activity (GHW)</td>
<td>1.5</td>
<td>Fall</td>
</tr>
</tbody>
</table>

### Third Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMPSC 462*</td>
<td>3</td>
<td>Spring</td>
</tr>
<tr>
<td>MATH 318 or STAT 318</td>
<td>3</td>
<td>Spring</td>
</tr>
<tr>
<td>ENGL 202C (GWS)‡</td>
<td>3</td>
<td>Spring</td>
</tr>
<tr>
<td>Technical Elective (Select 3 Credits)</td>
<td>3</td>
<td>Spring</td>
</tr>
</tbody>
</table>

### Fourth Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMPSC 470*</td>
<td>3</td>
<td>Fall</td>
</tr>
<tr>
<td>CMPSC 472*</td>
<td>3</td>
<td>Fall</td>
</tr>
<tr>
<td>CMPSC 487W*</td>
<td>3</td>
<td>Fall</td>
</tr>
<tr>
<td>Technical Elective (Select 6 Credits)</td>
<td>6</td>
<td>Fall</td>
</tr>
</tbody>
</table>

### Total Credits 120-122

1. Course requires a grade of C or better for the major
2. Course requires a grade of C or better for General Education
3. Course is an Entrance to Major requirement
4. Course satisfies General Education and degree requirement

**University Requirements and General Education Notes:**

US and IL are abbreviations used to designate courses that satisfy University Requirements (United States and International Cultures).

W, M, X, and Y are the suffixes at the end of a course number used to designate courses that satisfy University Writing Across the Curriculum requirement.

GWS, GQ, GHW, GN, GA, GH, and GS are abbreviations used to identify General Education program courses. General Education includes Foundations (GWS and GQ) and Knowledge Domains (GHW, GN, GA, GH, GS, and Integrative Studies). Foundations courses (GWS and GQ) require a grade of 'C' or better.

Integrative Studies courses are required for the General Education program. N is the suffix at the end of a course number used to designate an Inter-Domain course and Z is the suffix at the end of a course number used to designate a Linked course.

**Program Notes:**

1. General Education & Entrance to Major Requirements (55 credits)
   a. English (9 credits)
      i. ENGL 15 or ENGL 30H (GWS)
      ii. ENGL 202C (GWS)
      iii. CAS 100 (GWS)
b. Mathematics (10 credits)
   i. MATH 140 (GS)
   ii. MATH 141 (GS)
   iii. MATH 220 (GS)

c. Computer Science (6 credits)
   i. CMPSC 121 (GQ)
   ii. CMPSC 122

d. Natural Sciences
   i. PHYS 211 (GN)
   ii. Additional 5 credits of any courses with a GN suffix
      (PHYS 212 recommended)

e. Arts
   i. 6 credits of any courses with a GA suffix
   f. Humanities
   i. 6 credits of any courses with a GH suffix

g. Social & Behavioral Sciences
   i. 6 credits of any courses with a GS suffix

h. Health & Physical Activities
   i. 3 credits of any courses with a GHW suffix

2. Core Requirements (65 credits)
   a. Required Computer Science Courses - Students must earn a 2.5
      or higher-grade point average in the Required Computer Science
      Courses (36 credits):
         i. CMPSC 221
         ii. CMPSC 312
         iii. CMPSC 360
         iv. CMPSC 430
         v. CMPSC 460
         vi. CMPSC 462
         vii. CMPSC 463
         viii. CMPSC 469
         ix. CMPSC 470
         x. CMPSC 472
         xi. CMPSC 487W
         xii. CMPSC 488
   b. Required Mathematics Courses - Select one course from the
      following (3 credits):
         i. STAT 301
         ii. STAT 318
         iii. MATH 318

3. Additional Computer Science/Math Courses (15 credits)
   a. Select at least 15 credits from the following. Other courses are
      to be chosen in consultation with the advisor and with program
      approval. At least 9 of these additional computer science/math
      course credits must be from courses with a CMPSC prefix.
         i. CMPSC 313
         ii. CMPSC 412
         iii. CMPSC 413
         iv. CMPSC 414
         v. CMPSC 421
         vi. CMPSC 426
         vii. CMPSC 438
         viii. CMPSC 441
         ix. CMPSC 444
        x. CMPSC 455
        xi. CMPSC 457
        xii. CMPSC 475
        xiii. CMPSC 496
        xiv. CMPSC 497
        xv. MATH 401
        xvi. MATH 411
        xvii. MATH 412
        xviii. MATH 425
        xix. MATH 430
        xx. MATH 435
        xxi. MATH 449
        xxii. MATH 450
        xxiii. MATH 455
        xxiv. MATH 465
        xxv. MATH 468
        xxvi. MATH 485
        xxvii. MATH 496
        xxviii. MATH 497

4. Additional Electives / Supporting Courses (11 credits)
   a. 6 credits from courses at 300-400 level and 5 credits from
      courses at 100-400 level are to be chosen in consultation with the
      advisor and with program approval.