

# 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 (accessible in LionPATH as either an **Academic Requirements** or **What If** 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

Fall	Credits	Spring	Credits
ENGL 15 or 30H (GWS) <sup>†</sup>	3	CAS 100 (GWS) <sup>‡</sup>	3
MATH 140 (GQ) <sup>*‡#</sup>	4	MATH 141 (GQ) <sup>*‡#</sup>	4
Humanities (GH)	3	Arts (GA)	3
Social and Behavioral Science (GS)	3	CMPSC 121 (GQ) <sup>*#</sup>	3
Health and Physical Activity (GHW)	1.5	PHYS 211 (GN) <sup>†</sup>	4
	<b>14.5</b>		<b>17</b>

#### Second Year

Fall	Credits	Spring	Credits
Arts (GA)	3	Natural Sciences (GN)	2-3
Humanities (GN)	3	Social and Behavioral Sciences (GS)	3
Natural Sciences (GN) (PHYS 212 recommended) <sup>1</sup>	3-4	MATH 220	2
CMPSC 122 <sup>*#</sup>	3	CMPSC 312 <sup>2</sup>	3
CMPSC 360 <sup>*2</sup>	3	CMPSC 221 <sup>2</sup>	3
		Health and Physical Activity (GHW)	1.5
	<b>15-16</b>		<b>14.5-15.5</b>

#### Third Year

Fall	Credits	Spring	Credits
CMPSC 462 <sup>2</sup>	3	CMPSC 430 <sup>2</sup>	3
MATH 318 or STAT 318	3	CMPSC 463 <sup>2</sup>	3
ENGL 202C (GWS) <sup>†</sup>	3	CMPSC 469 <sup>2</sup>	3
Technical Elective (Select 3 Credits)	3	Technical Elective (Select 3 Credits)	3

Supporting Courses: Select 5 credits of 100-400 level courses in consultation with an academic adviser <sup>3</sup>	5	Supporting Courses: Select 3 credits of 300-400 level courses in consultation with an academic adviser <sup>3</sup>	3
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**17** **15**

#### Fourth Year

Fall	Credits	Spring	Credits
CMPSC 470 <sup>2</sup>	3	CMPSC 460 <sup>2</sup>	3
CMPSC 472 <sup>2</sup>	3	CMPSC 488 <sup>2</sup>	3
CMPSC 487W <sup>2</sup>	3	Technical Elective (Select 3 Credits)	3
Technical Elective (Select 6 Credits)	6	Supporting Courses: Select 3 credits of 300-400 level courses in consultation with an academic adviser <sup>3</sup>	3
	<b>15</b>		<b>12</b>

#### Total Credits 120-122

\* Course requires a grade of C or better for the major

‡ Course requires a grade of C or better for General Education

# Course is an Entrance to Major requirement

† Course satisfies General Education and degree requirement

<sup>1</sup> Natural Sciences (GN), recommended courses  
• PHYS 212 General Physics: Electricity and Magnetism

<sup>2</sup> Students must earn a 2.5 or higher grade point average in the following courses: CMPSC 221, CMPSC 312, CMPSC 360, CMPSC 430, CMPSC 460, CMPSC 462, CMPSC 463, CMPSC 469, CMPSC 470, CMPSC 472, CMPSC 487W, and CMPSC 488.

<sup>3</sup> 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 adviser and with program approval.

#### 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.