# CS & Physics Plan of Study

This is meant to be followed loosely as the Physics/Computer Science has many possible course combinations. Please refer to the course bulletin for a full list of courses that students can take. Reach out to your advisor if you have questions!

*indicates that choice is dependent on whether students have an AP Calculus or AP CS credit.

## Graduation Requirement Breakdown

**CAS Requirements**
- CAS Programs require a minimum of 128 credits, excluding PDP, ROTC, and CASFY and CASSY courses.
- 4th semester foreign language or demonstration of equivalent proficiency.

**CS & Physics Joint Major Requirements**

**CS Foundational Courses**
- CS111 & CS112
- CS 210
- CS330

**Math Background Courses**
- MA123 & MA124
- CS131
- CS235 or CS237

**Physics Pre-Req Courses**
- PY251 & PY252 or PY211 & PY212
- PY351 or PY313
- PY355

**Principle Required Courses**
- PY 421 & PY 410
- PY 536
- 1 other CS course at the 300 level
- 2 CS classes at level 300 or above
- 1 PY 400/500s course or PY 371

**Hub Requirements**
The HUB is a set of 26 requirements for all BU undergraduate students. They can be completed in ~10–12 courses. Hub courses can count toward majors & minors. Below are the list of Hub requirements that are not already included in the CS major courses

- 1 Philosophical Inquiry & Life’s Meanings
- 1 Aesthetic Exploration
- 1 Social Inquiry I
- 1 The Individual in Community
- 2 Global Citizenship and Intercultural Literacy
- 1 Ethical Reasoning
- 2 Research and Information Literacy
- 2 Teamwork/Collaboration
- 1 First-Year Writing Seminar
- 1 Writing, Research, and Inquiry
- 2 Writing–Intensive Course
- 1 Oral and/or Signed Communication

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## CS & Physics Plan of Study

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<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
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<tbody>
<tr>
<td><strong>FRESHMAN</strong></td>
<td><strong>SPRING</strong></td>
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<tr>
<td>MA 123: Calculus 1 or MA 124: Calculus II</td>
<td>PY 252: Principles of Physics 2 or PY 212: General Physics II</td>
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<tr>
<td>CS 111: Intro to CS 1</td>
<td>CS 112: Intro to CS 2</td>
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<tr>
<td>PY 251: Principles of Physics 1 or PY 211: General Physics I</td>
<td>Second Semester Writing Course - WR 151, WR 152 or WR 153</td>
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<tr>
<td>WR 120: First-Year Writing Seminar</td>
<td>MA 124 or Foreign Language/Hub Course</td>
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<td><strong>SOPHOMORE</strong></td>
<td><strong>Hub Course</strong></td>
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<tr>
<td>CS 131: Combinatoric Structures</td>
<td>Foreign Language Course/Hub Course</td>
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<tr>
<td>PY 351: Modern Physics 1 or PY 313: Waves &amp; Modern Physics</td>
<td>Foreign Language Course/Hub Course</td>
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<td>Foreign Language Course/Hub Course</td>
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<td><strong>JUNIOR</strong></td>
<td><strong>Hub Course</strong></td>
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<td>CS 210: Computer Systems</td>
<td>CS330: Intro to Analysis of Algorithms</td>
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<td>CS course 300 or above</td>
<td>PY421: Intro to Computational Physics</td>
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<td>Hub Course</td>
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<td>Foreign Language Course/Hub Course</td>
<td>Hub Course</td>
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<tr>
<td><strong>SENIOR</strong></td>
<td><strong>Hub Course</strong></td>
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<tr>
<td>CS course 300 or above</td>
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<tr>
<td>PY 536: Quantum Computing</td>
<td>PY 410: Statistical Thermodynamics</td>
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<tr>
<td>Hub Course</td>
<td>PY 400/500s elective course or PY 371 Lab Electronics</td>
</tr>
<tr>
<td>Hub Course</td>
<td>Hub Course</td>
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</tbody>
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### Course Descriptions

- **MA 123:** Calculus 1
- **MA 124:** Calculus II
- **CS 111:** Intro to CS 1
- **PY 251:** Principles of Physics 1 or PY211: General Physics I
- **PY 252:** Principles of Physics 2 or PY212: General Physics II
- **WR 120:** First-Year Writing Seminar
- **CS 131:** Combinatoric Structures
- **PY 351:** Modern Physics 1 or PY 313: Waves & Modern Physics
- **HS12:** Hub Course
- **FR/LF:** Foreign Language Course/Hub Course
- **CS course 300 or above:** 1 or 2 courses at the 300 level
- **PY 400/500s:** 1 course at the 400/500 level
- **PY 371:** Lab Electronics
- **PY 421 & PY 410:** Intro to Computational Physics
- **PY 536:** Quantum Computing
- **CS course 300 or above:** 1 or 2 courses at the 300 level
- **PY 400/500s:** 1 course at the 400/500 level
- **PY 371:** Lab Electronics

### Hub Requirements

- **Philosophical Inquiry & Life’s Meanings**
- **Aesthetic Exploration**
- **Social Inquiry I**
- **The Individual in Community**
- **Global Citizenship and Intercultural Literacy**
- **Ethical Reasoning**
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