Starting the Computer Science Major in the Sophomore Year

Often students change their mind about their major after their freshman year. Many students ask how to successfully meet the computer science degree requirements starting in their sophomore year and worry it is not possible. This document is intended to illustrate how this can be done. If you are going to try to obtain a computer science degree in three years, you should plan on getting a B.A. degree. The B.A. degree is designed to allow students more flexibility, and this is one situation in which flexibility is important.

Important: This document is only a guideline. Degree requirements, course scheduling, and pre-requisites sometimes change. In consultation with a major advisor, you are responsible for ensuring that you meet the degree requirements that are applicable to you. Similarly, you are responsible for creating a feasible plan for graduation subject to university requirements, major requirements, pre-requisites, scheduling, and any other factors applicable to you. Further, the introductory courses are in high demand. If you choose to do this, you need to register for these courses early, and not delay your decision until after the start of the fall semester, as the courses can and do reach their capacity.

Sample Three Year Schedule. The following is one possible schedule that will enable you to earn a B.A. in Computer Science in three years. This plan assumes that you have completed MATH 101 and MATH 102 in your freshman year and that you are able to fit in all other university requirements.

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Spring</th>
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<tbody>
<tr>
<td>Sophomore</td>
<td>COMP 130, 140 or 160 MATH 211</td>
<td>COMP 182 ELEC 220 STAT 310</td>
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<td>COMP 215 COMP 382 MATH 355</td>
<td>COMP 321 COMP 322 CS Elective</td>
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<tr>
<td>Senior</td>
<td>COMP 310 COMP 412</td>
<td>COMP 421 CS Elective</td>
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There is some flexibility in this plan, as well. For example, COMP 322 can be delayed into the senior year. Note that the placement of the electives is largely subject to pre-requisite constraints. Consult the catalog for courses that have minimal or no pre-requisites.

There is also a lot of flexibility in scheduling the mathematics requirements. However, keep in mind that the math classes are pre-requisites for some elective classes. Also, it is recommended to get these math requirements taken care of as early as possible so that you do not need to take them concurrently with the later computer science classes that require more work.

Receiving a B.S. in Computer Science. A B.A. in Computer Science at Rice is an excellent degree. Over the past several years, about 40% of our students have received a B.A. degree. There is no discernable difference in the type or quality of jobs that students with a B.A. or B.S. degree obtain after graduation.

However, some students will still wish to obtain the additional depth that the B.S. offers. When starting the major late, this is possible, but difficult. Ideally, you will have already taken Physics in your freshman year. We encourage you to create a plan to receive the B.A., then try to take the additional courses for the B.S. if you can.

If you take four computer science courses each semester of the senior year, a design class and three additional courses approved by a major advisor as a capstone sequence, then you can receive the B.S. degree. This takes careful planning to come up with a capstone sequence of courses that can fit into such a tight schedule, so you should carefully look over course offerings, consult with a major advisor, and be flexible with your capstone sequence.

Transfer Credit. In general, it is difficult to get transfer credit for upper-level computer science classes. However, it is possible for mathematics, physics, and some computer science classes. While we do not encourage this in general, to fit everything in, you can consider attending summer school at another university to obtain transfer credit for some classes. You should always consult with a major advisor before doing this to ensure that you will actually receive transfer credit.

Additional Information. Please also refer to the department’s academic advisors and to the advising information at http://compsci.rice.edu/undergrad/.

Last modified: 3 June 2016