**6-3: Computer Science and Engineering**

The 6-3 curriculum builds primarily on the Calculus II GIR; not all subjects require a GIR as a prerequisite.

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**introductory subjects** introduce students to the breadth of our department, and teach fundamental skills for electrical engineering and computer science.

- **Programming Skills**: 6.001 or 6.S061
- **Introduction to EECS**: 6.01 or 6.02 or 6.03 or 6.08
- **Discrete Math**: 6.042

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**foundation subjects** build on introductory material.

- **Computation Structures**: 6.004
- **Programming**: 6.009
- **Algorithms**: 6.006

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**header subjects** typically rely on a foundation course as a prerequisite.

- **Artificial Intelligence and Machine Learning**: 6.034 or 6.036
- **Computer Systems**: 6.033
- **Software Construction**: 6.031
- **Algorithms and Computation**: 6.045 or 6.046
- **Advanced Undergraduate Subject**: 6.046 only

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**advanced undergraduate subjects** build on header material; exact prerequisites vary.

- **Communication**: 6.UAT or 6.UAR
- **Course 6 Elective**: two additional subjects are typically taken in the junior or senior year.
This is a common roadmap for 6-3, but many permutations are possible. For instance, there is a significant amount of flexibility in what order students take their foundations, and in whether they finish their foundations before taking any headers.

<table>
<thead>
<tr>
<th>Semester 1:</th>
<th>Programming skills, Discrete math</th>
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<tr>
<td>Semester 2:</td>
<td>Introduction to EECS, Foundation #1</td>
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<td>Semester 3:</td>
<td>Foundation #2, Foundation #3</td>
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<td>Semester 4:</td>
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<td>Semester 6:</td>
<td>AUS #1, AUS #2</td>
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6.UAT or 6.UAR and the Course 6 elective are typically taken at some point during semesters 4-6.