## Mathematics at Concord Academy

### Foundational Courses
- Algebra 1
- Intermediate Algebra
- Geometry Part 1
- Geometry Part 2

Most 9th graders and many 10th graders begin in a foundational course. Prior math experience and performance on the placement test determine which course, or whether they begin in a middle-level course instead.

- All courses are one semester.

### Middle-Level Courses
- **Accelerated Sequence**
  - Accelerated Algebra 2
  - Accelerated Trigonometry
  - Accelerated Precalculus

- **Standard Sequence**
  - Algebra 2
  - Statistics
  - Trigonometry
  - Precalculus

Some students begin here.

- All courses are one semester.
- Students choose a sequence lasting either four semesters (standard) or three semesters (accelerated), and may change sequences when appropriate.
- The last two courses in each sequence may be taken in either order.

### Upper-Level Courses
- **College-Level Calculus**
  - Calculus: Part A
  - Calculus: Part B
  - Calculus: Part C

- **Other**
  - Advanced Statistics
  - Advanced Economics
  - Math Electives

- All courses are one semester.
- Calculus courses require completion of a middle-level sequence, but Advanced Statistics and Advanced Economics, and Math Electives do not.
- The 2020–21 Math Electives are *Experimental Statistics/Psychology, Environmental Economics, and Mathematics of Social Justice*.

### Most Advanced Courses
- Advanced Topics in Math
- Departmental Study in Math

- Students are eligible to take these classes upon completion of Calculus: Part A.
- Recent offerings in Advanced Topics include *Number Theory; Set Theory; Dynamical Systems; Abstract Algebra*, and *Calculus-Based Statistics*.
- Recent departmental studies include *Game Theory* and *Matrices & Introduction to Linear Algebra*. 
Representative Courses of Study
(For Entering 9th-Graders)

Students entering with some exposure to algebra but not a solid grasp of first-year algebra will likely take the following:

<table>
<thead>
<tr>
<th>Grade</th>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Intermediate Algebra</td>
<td>Geometry Part 1</td>
</tr>
<tr>
<td>10</td>
<td>Geometry Part 2</td>
<td>Algebra 2</td>
</tr>
<tr>
<td>11</td>
<td>Statistics</td>
<td>Trigonometry</td>
</tr>
<tr>
<td>12</td>
<td>Precalculus (or Advanced Econ)</td>
<td>Calculus (or Advanced Stats)</td>
</tr>
</tbody>
</table>

Students entering with a solid grasp of first-year algebra but no geometry will likely take one of the following sequences, depending on their ability to learn math quickly and deeply. Sometimes students start in one sequence and move to the other.

**Standard Sequence**

<table>
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<tr>
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<td>Precalculus</td>
<td>Trigonometry</td>
</tr>
<tr>
<td>12</td>
<td>Calculus A (or Advanced Econ)</td>
<td>Calculus B (or Advanced Stats)</td>
</tr>
</tbody>
</table>

**Accelerated Sequence**

<table>
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<td>12</td>
<td>Calculus B</td>
<td>Calculus C</td>
</tr>
</tbody>
</table>

Students starting beyond Geometry take similar sequences earlier and are eligible to take some post-calculus courses.