

Mathematics at Concord Academy

<p style="text-align: center;">Foundational Courses</p> <div style="border: 1px solid black; background-color: #e0f2f1; padding: 5px; margin-bottom: 5px; text-align: center;">Algebra 1</div> <div style="border: 1px solid black; background-color: #e0f2f1; padding: 5px; margin-bottom: 5px; text-align: center;">Intermediate Algebra</div> <div style="border: 1px solid black; background-color: #e0f2f1; padding: 5px; margin-bottom: 5px; text-align: center;">Geometry Part 1</div> <div style="border: 1px solid black; background-color: #e0f2f1; padding: 5px; text-align: center;">Geometry Part 2</div>	<ul style="list-style-type: none"> ▪ 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.
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<p style="text-align: center;">Middle-Level Courses</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center; padding: 5px;">Accelerated Sequence</td> <td style="width: 50%; text-align: center; padding: 5px;">Standard Sequence</td> </tr> <tr> <td style="border: 1px solid black; background-color: #e0f2f1; padding: 5px; text-align: center;">Accelerated Algebra 2</td> <td style="border: 1px solid black; background-color: #e0f2f1; padding: 5px; text-align: center;">Algebra 2</td> </tr> <tr> <td style="border: 1px solid black; background-color: #e0f2f1; padding: 5px; text-align: center;">Accelerated Trigonometry</td> <td style="border: 1px solid black; background-color: #e0f2f1; padding: 5px; text-align: center;">Statistics</td> </tr> <tr> <td style="border: 1px solid black; background-color: #e0f2f1; padding: 5px; text-align: center;">Accelerated Precalculus</td> <td style="border: 1px solid black; background-color: #e0f2f1; padding: 5px; text-align: center;">Trigonometry</td> </tr> <tr> <td></td> <td style="border: 1px solid black; background-color: #e0f2f1; padding: 5px; text-align: center;">Precalculus</td> </tr> </table>	Accelerated Sequence	Standard Sequence	Accelerated Algebra 2	Algebra 2	Accelerated Trigonometry	Statistics	Accelerated Precalculus	Trigonometry		Precalculus	<ul style="list-style-type: none"> ▪ 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.
Accelerated Sequence	Standard Sequence										
Accelerated Algebra 2	Algebra 2										
Accelerated Trigonometry	Statistics										
Accelerated Precalculus	Trigonometry										
	Precalculus										

<p style="text-align: center;">Upper-Level Courses</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center; padding: 5px;">College-Level Calculus</td> <td style="width: 50%; text-align: center; padding: 5px;">Other</td> </tr> <tr> <td style="border: 1px solid black; background-color: #e0f2f1; padding: 5px; text-align: center;">Calculus: Part A</td> <td style="border: 1px solid black; background-color: #e0f2f1; padding: 5px; text-align: center;">Calculus</td> </tr> <tr> <td style="border: 1px solid black; background-color: #e0f2f1; padding: 5px; text-align: center;">Calculus: Part B</td> <td style="border: 1px solid black; background-color: #e0f2f1; padding: 5px; text-align: center;">Advanced Statistics</td> </tr> <tr> <td style="border: 1px solid black; background-color: #e0f2f1; padding: 5px; text-align: center;">Calculus: Part C</td> <td style="border: 1px solid black; background-color: #e0f2f1; padding: 5px; text-align: center;">Advanced Economics</td> </tr> <tr> <td></td> <td style="border: 1px solid black; background-color: #e0f2f1; padding: 5px; text-align: center;">Math Electives</td> </tr> </table>	College-Level Calculus	Other	Calculus: Part A	Calculus	Calculus: Part B	Advanced Statistics	Calculus: Part C	Advanced Economics		Math Electives	<ul style="list-style-type: none"> ▪ 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 <i>Experimental Statistics/Psychology</i>, <i>Environmental Economics</i>, and <i>Mathematics of Social Justice</i>
College-Level Calculus	Other										
Calculus: Part A	Calculus										
Calculus: Part B	Advanced Statistics										
Calculus: Part C	Advanced Economics										
	Math Electives										

<p style="text-align: center;">Most Advanced Courses</p> <div style="border: 1px solid black; background-color: #e0f2f1; padding: 5px; margin-bottom: 5px; text-align: center;">Advanced Topics in Math</div> <div style="border: 1px solid black; background-color: #e0f2f1; padding: 5px; text-align: center;">Departmental Study in Math</div>	<ul style="list-style-type: none"> ▪ Students are eligible to take these classes upon completion of Calculus: Part B. ▪ Recent offerings in Advanced Topics include <i>Number Theory</i>; <i>Set Theory</i>; <i>Dynamical Systems</i>; <i>Abstract Algebra</i>, and <i>Calculus-Based Statistics</i>. ▪ Recent departmental studies include <i>Game Theory</i> and <i>Matrices & Introduction to Linear Algebra</i>.
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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:

Grade	First Semester	Second Semester
9	Intermediate Algebra	Geometry Part 1
10	Geometry Part 2	Algebra 2
11	Statistics	Trigonometry
12	Precalculus (or Advanced Econ)	Calculus (or Advanced Stats)

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		
Grade	First Semester	Second Semester
9	Geometry Part 1	Geometry Part 2
10	Algebra 2	Statistics
11	Precalculus	Trigonometry
12	Calculus A (or Advanced Econ)	Calculus B (or Advanced Stats)

Accelerated Sequence		
Grade	First Semester	Second Semester
9	Geometry Part 1	Geometry Part 2
10	Accelerated Algebra 2	Accelerated Trigonometry
11	Accelerated Precalculus	Calculus A
12	Calculus B	Calculus C

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