

## Algebra 2 Part A – Course Details Semester Long Course

<b>Course Objectives</b>	By the end of this course, students will be conversant with a number of mathematical topics (see the Course Description for a list of these topics). 'Conversant' means that students will be able to recognize when a topic applies to a specific situation, how to analyze the situation, and how to interpret the analysis. Students will have enough computational skill with each topic that they will be able to correctly apply that skill whenever such skill is required in a subsequent mathematics course. Students will come away with an understanding and appreciation of where the topics arise in real world applications.
<b>Textbook</b>	There are no textbooks required for this course.
<b>Calculators</b>	<p>Built-in to every operating system is a calculator (on Windows, it is under Accessories; on Macintosh, it is in the Applications folder). When opened, it is very basic. However, by clicking on the View menu, you will see Scientific as an option. Choosing scientific opens up the keypad and you will now have everything you need for this course.</p> <p>However, for students possessing more advanced graphing calculators, those calculators will be referenced in a number of places. While a graphing function on a calculator is not necessary for this course, it does make it easy to check your work. If you have a graphing calculator, there are appropriate tutorials provided as they are referenced; for those of you interested in trying an online graphing calculator, visit the site <a href="http://gcalc.net/">http://gcalc.net/</a> for a free applet.</p>

### Week by Week Semester Breakdown

Week 1	<ul style="list-style-type: none"> <li>• Course Introduction. Students should take Review Quiz and review appropriate prerequisite material.</li> </ul>
Week 2	<ul style="list-style-type: none"> <li>• Unit 1: Absolute Value Introduction and Section 1</li> <li>• Absolute Value Homework 1</li> </ul>
Week 3	<ul style="list-style-type: none"> <li>• Unit 1: Absolute Value Section 2</li> <li>• Absolute Value Homework 2</li> <li>• Absolute Value Homework 3</li> <li>• Absolute Value Quiz</li> <li>• Unit 2: Systems of Linear Equations Introduction and Section 1</li> </ul>

Week 4	<ul style="list-style-type: none"> <li>• Unit 2: Systems of Linear Equations Sections 2, 3, and 4</li> <li>• Linear Systems Activity</li> <li>• Linear Systems Homework 1</li> </ul>
Week 5	<ul style="list-style-type: none"> <li>• Unit 2: Systems of Linear Equations Section 5</li> <li>• Linear Systems Homework 2</li> <li>• Unit 2: Systems of Linear Equations Sections 6 and 7</li> <li>• Linear Systems Homework 3</li> <li>• Linear Systems Quiz</li> </ul>
Week 6	<ul style="list-style-type: none"> <li>• Unit 3: Polynomials Introduction and Sections 1 and 2</li> <li>• Polynomials Homework 1</li> <li>• Polynomials Homework 2</li> </ul>
Week 7	<ul style="list-style-type: none"> <li>• Unit 3: Polynomials Section 3</li> <li>• Polynomials Homework 3</li> <li>• Unit 3: Polynomials Sections 4 and 5</li> <li>• Polynomials Homework 4</li> <li>• Polynomials Quiz</li> </ul>
Week 8	<ul style="list-style-type: none"> <li>• Unit 4: Complex Numbers Introduction and Sections 1 and 2</li> <li>• Complex Numbers Homework 1</li> <li>• Unit 4: Complex Numbers Section 3</li> <li>• Complex Numbers Activity</li> <li>• Unit 4: Complex Numbers Section 4</li> <li>• Complex Numbers Homework 2</li> <li>• Complex Numbers Quiz</li> </ul>
Week 9	<ul style="list-style-type: none"> <li>• Unit 5: Quadratics Introduction and Sections 1, 2, and 3</li> <li>• Quadratics Homework 1</li> </ul>
Week 10	<ul style="list-style-type: none"> <li>• Quadratics Activity</li> <li>• Unit 5: Quadratics Section 4</li> <li>• Quadratics Homework 2</li> </ul>
Week 11	<ul style="list-style-type: none"> <li>• Unit 5: Quadratics Section 5</li> <li>• Quadratics Homework 3</li> </ul>
Week 12	<ul style="list-style-type: none"> <li>• Unit 5: Quadratics Section 6</li> <li>• Quadratics Homework 4</li> </ul>

Week 13	<ul style="list-style-type: none"><li>• Unit 5: Quadratics Section 7</li><li>• Quadratics Homework 5</li><li>• Unit 5: Quadratics Section 8</li><li>• Quadratics Homework 6</li><li>• Quadratics Quiz</li></ul>
Week 14	<ul style="list-style-type: none"><li>• Unit 6: Conics Introduction and Sections 1 and 2</li><li>• Conics Homework 1</li></ul>
Week 15	<ul style="list-style-type: none"><li>• Unit 6: Conics Section 3</li><li>• Conics Homework 2</li></ul>
Week 16	<ul style="list-style-type: none"><li>• Unit 6: Conics Section 4</li><li>• Conics Homework 3</li><li>• Unit 6: Conics Section 5</li><li>• Conics Homework 4</li></ul>
Week 17	<ul style="list-style-type: none"><li>• Unit 6: Conics Section 6</li><li>• Conics Homework 5</li><li>• Conics Quiz</li></ul>
Week 18	<ul style="list-style-type: none"><li>• Final Exam</li></ul>