Advanced Mathematics 2200

Unit 9: Linear and Quadratic Inequalities

Text: Pre – Calculus 11 **Chapter 9**

By the end of the unit, it is expected that students will:

Outcomes	Text Book
1. Explain, using examples, how test points can be used to determine the solution region that satisfies a linear inequality. **2. Explain, using examples, when a solid or broken line should be used in the solution for a linear inequality.** **3. Sketch, with or without technology, the graph of a linear inequality.** **4. Solve a problem that involves a linear inequality.** **5. Determine the solution of a quadratic inequality in one variable, using strategies such as case analysis, graphing, roots and test points, or sign analysis; and explain the strategy used.** **6. Represent and solve a problem that involves a quadratic inequality in one variable.** **7. Interpret the solution to a problem that involves a quadratic inequality in one variable** **8. Explain, using examples, how test points can be used to determine the solution region that satisfies a quadratic inequality.** **9. Explain, using examples, when a solid or broken line should be used in the solution for a quadratic inequality.** **10. Sketch, with or without technology, the graph of a quadratic inequality.** **11. Solve a problem that involves a quadratic inequality.**	**Section 9.1 pp. 464-475** **Section 9.3 2pp. 476-487** **Section 9.3 pp. 488-500**