# Intermediate Algebra MAT 137

**INSTRUCTOR:** Brian F. Kennedy

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#### **REQUIRED TEXT**

Elementary and Intermediate Algebra 5th ed. by Baratto and Bergman, a graphing calculator is also required.

**CREDIT:** 3 credit hours

#### **COURSE DESCRIPTION**

This course cultivates understanding and different representations of functions. The course covers linear, quadratic, exponential, rational, radical functions, equations and expressions and operations on them with emphasis on modeling and solving real world problems.

PREREQUISITE: MAT 095 or acceptable placement score.

#### **GRADING POLICY**

A student will receive one of the following grades: A, A-, B+, B, B-, C+, C, C-, D+, D, D-, F, I, W, P or Audit. Determination of that grade will be based on the following. Throughout the semester there will be four, 100 point exams (an exam will be announced at least one week prior to its administration). A comprehensive final exam worth 200 points. Quizzes and projects throughout the semester totaling 75 points. Your final grade will be computed by totaling all the points earned on the four tests, quizzes and final exam grade then dividing that total by the 675 possible points.

Grade Equivalents:	A 93 - 100	B 83 - 86	C 73 - 76	D 63 - 66
	A- 90 - 92	B- 80 - 82	C- 70 - 72	D- 60 - 62
	B+ 87 - 89	C+ 77 - 79	D+ 67 - 69	F 59 or less

Quizzes will be during the first 15 minutes of class and cannot be made up. No test can be made up without prior arrangement with the instructor. All makeup tests will take place during final exam week.

#### **COLLEGE WITHDRAWAL POLICY**

Course withdrawals are accepted up until the week before classes end. Specific dates are posted in the academic calendar and withdrawal forms are available online or at the Registrar's office. The withdrawal does not have to be signed by the instructor but it is strongly recommended that you speak with your instructor before withdrawing. If you are receiving financial aid you must contact their office for approval before withdrawing. If necessary, you can withdraw over the phone by calling the Registrar's Office at 860-215-9064.

#### **DISABILITIES STATEMENT**

If you have a hidden or visible disability which may require classroom or test-taking modifications, please see me as soon as possible. If you have not already done so, please be sure to register with Chris Scarborough.

### **ACADEMIC INTEGRITY POLICY**

All students are expected to demonstrate their knowledge of the material on each quiz and test. Any student caught cheating will receive a zero on that test.

#### **CLASS CANCELATION POLICY**

If class is canceled by the instructor a notice will be placed on the classroom door. If time permits, the class will be notified by email

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## **COURSE OUTLINE** (subject to change)

Date	Chapters (Sections) covered	Course Outcomes
9/1 9/3 9/8 9/10 9/15 9/17 9/22 9/24 9/29 10/1 10/6 10/8	Ch. 6.1 Ch. 6.2 Ch. 6.3 Ch. 6.4 Ch. 6.5 Ch. 6.6 Review Test #1 Ch. 7.1 Ch. 7.2 Ch. 7.3 Ch. 7.4	<ol> <li>Provide multiple representations (e.g. words, symbols, graphs, tables) of linear functions by hand and using technology</li> <li>Determine identifying characteristics of linear functions</li> <li>Model and solve real world applications with linear functions and systems of equations</li> <li>Provide multiple representations of quadratic functions and expressions by hand and using technology</li> <li>Determine identifying characteristics of quadratic functions and expressions (e.g. factors)</li> <li>Evaluate, simplify, and perform operations on quadratic functions and expressions</li> <li>Solve quadratic equations algebraically (e.g. factoring, completing the square, and quadratic formula with rational solutions) and/or graphically</li> </ol>
10/13 10/15 10/20 10/22 10/27 10/29 11/3 11/5 11/10 11/12 11/17 11/19 12/1 12/3 12/8	Ch. 7.5, 7.6 Review Test #2 Ch. 8.1 Ch. 8.2 Ch. 8.3 Ch. 8.4 Review Test #3 Ch. 9.1 Ch. 9.2 Ch. 9.3 Ch. 9.6 Ch. 10.4 Review	<ul> <li>8. Solve real world applications involving quadratic functions</li> <li>9. Provide multiple representations of simple rational functions and expressions by hand and using technology</li> <li>10. Determine identifying characteristics of rational functions and expressions</li> <li>11. Evaluate, simplify and perform operations on simple rational functions or expressions</li> <li>12. Solve simple rational equations algebraically and/or graphically</li> <li>13. Solve real world applications involving rational functions</li> <li>14. Provide multiple representations of simple radical functions and expressions by hand and using technology, with primary emphasis on square roots</li> <li>15. Determine identifying characteristics of radical functions and expressions</li> <li>16. Evaluate, simplify and perform operations on simple</li> </ul>
12/10 12/15	Test #4 Review for Final Exam	radical functions and expressions 17. Solve simple radical equations algebraically and/or graphically
12/17 12/22	Final Exam part I Final Exam part II	18. Solve real world applications involving radical functions 19. Identify imaginary numbers 20. Provide multiple representations (e.g. tables, graphs, symbols) of exponential functions and expressions by hand and using technology 21. Determine identifying characteristics of exponential functions and expressions

22. Solve simple exponential equations algebraically

and/or graphically
23. Identify real world applications involving exponential functions and solve graphically