Intermediate Algebra

Math 103 (55291)

**Course Syllabus**

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| **Semester/Year: Spring 2015**  **Units: 5**  **MyMathLab Course ID:** hebert81406 | **Instructor**: Connie Hébert  **Cell phone number: (559)977-6951**  **Email**: connie.hebert@reedleycollege.edu |
| **Length:** 18 weeks  First day – 1/12, Last day – 5/20  Add Deadline: 1/30  Drop Deadline no W: 1/30  Drop Deadline: 3/13 | **Schedule**  All classes meet on Monday – Friday  Time: 8:00am – 8:50am  **Room**: CCI-200  **No Class:** 1/19, 2/13, 2/16, 3/30 – 4/3 |

**Course Description**

This course will deal with many algebraic concepts including: equations and inequalities in two variables, rational exponents and roots, quadratic functions, exponential and logarithmic functions, and conic sections.

**Prerequisites:** Mathematics 201 or equivalent

**Student Learning Outcomes**

1. Simplify and/or factor mathematical expressions into forms more conducive to analysis.
2. Solve equations introduced in Intermediate Algebra (linear, quadratic, exponential, logarithmic, and radical).
3. Graph functions and relations introduced in Intermediate Algebra (linear, quadratic, exponential, logarithmic)
4. Apply Intermediate Algebra topics (linear, quadratic, exponential, logarithmic, and radical functions) to solve.

**Course Objectives**

1. Use the properties of lines and linear inequalities, and apply operations on functions.
2. Simplify radical and complex expressions and perform operations on them.
3. Solve quadratic equations using various techniques including factoring and quadratic formula, and graph
4. Apply the properties of exponents and logarithmic functions to change the base of a logarithm.
5. Manipulate and graph equations of conic sections.
6. Generalize arithmetic and geometric sequences and find the kth term of a binomial expansion.

**Textbook (Optional)**: Elementary and Intermediate Algebra (Third Edition) by Woodbury

**Web Access (Required):** MyMathLab access code must be purchased.

<http://www.mymathlab.com/>

The course id is hebert81406

**Computer Requirements**

* High speed internet access

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| Microsoft Windows | Windows 8 & 7 | Firefox  Chrome  Internet Explorer 10 & 9 |
| Mac OS | 10.8 (Mountain Lion) | Chrome  Safari  Firefox |
|  | 10.7 (Lion) | Chrome  Firefox |
|  | 10.6 (Snow Leopard) | Safari 5 |

**Other Course Materials**

* Whiteboard, sheet protector, or any whiteboard like surface
* Whiteboard marker
* Scientific Calculator

**Outline of Topics Covered**

* + 1. Equations and Inequalities in Two Variables

1. Slope of a line
2. The equation of a line
3. Linear inequalities in two variables
4. Operations on functions
   * 1. Rational Exponents and Roots
5. Rational exponents
6. Simplified form for radicals
7. Arithmetic operations on radical expressions
8. Equations with radicals
9. Complex numbers
   * 1. Quadratic Functions
10. Quadratic equations
11. Graphing parabolas

D. Exponential and Logarithmic Functions

1. Exponential Functions
2. The Inverse of a function
3. Logarithms and their properties
4. Exponential and logarithmic equations and change of base

E. Conic Sections

1. Circle
2. Ellipses and Hyperbolas

Optional Topics (if time permits)

* 1. Quadratic Functions
     1. Quadratic inequalities
  2. Conic Sections
     1. Second-degree inequalities and non-linear systems
  3. Sequences and Series

1. Arithmetic and geometric sequences
2. Series
3. Binomial Expansion

**Instructional Methodology/Mode of Delivery**

We will work hard together to help you be the best mathematician possible.  We will have discussions, lectures, activities, and projects in class.   Homework will be assigned almost every day.

**Assignments & Tests**

Homework will be completed on MyMathLab and turned in there as well.  This is a mastery course so you will have as many attempts on a problem as you so choose.  It is best to have at least 80% accuracy.  Your homework percentage will be a part of your grade.  Assignments and their due dates will be posted on MyMathLab.  *Note: Being absent the day homework is due does not entitle you to turn it in late!*You will also receive a grade for in class activities. There will be 6 tests, and they will be completed in class.  A student caught cheating will receive an F on the assignment and/or may be dropped from the course.

**The final will be on** Wednesday May 20th **and will be comprehensive.**

Chapter 9 Test

Chapter 10 Test

Chapter 11 Test

Chapter 12 Test

Chapter 13 Test

Final – May 20th

**Academic Dishonesty**

Students at Reedley College are entitled to the best education that the college can make available to them, and they, their instructors, and their fellow students share the responsibility to ensure that this education is honestly attained. Because cheating, plagiarism, and collusion in dishonest activities erode the integrity of the college, each student is expected to exert an entirely honest effort in all academic endeavors. Academic dishonesty in any form is a very serious offense and will incur serious consequences.

Cheating is the act or attempted act of taking an examination or performing an assigned, evaluated task in a fraudulent or deceptive manner, such as having improper access to answers, in an attempt to gain an unearned academic advantage. Cheating may include, but is not limited to, copying from another’s work, supplying one’s work to another, giving or receiving copies of examinations without an instructor’s permission, using or displaying notes or devices inappropriate to the conditions of the examination, allowing someone other than the officially enrolled student to represent the student, or failing to disclose research results completely.

**Attendance**

After 5 absences, students may be dropped from the class. Late arrival and leaving class early will be considered as an absence. Any canceled classes will have a note posted on the classroom door. I'll do my best to email you as well.

**Behavior**

A student may be suspended from the class if he or she engages in a classroom behavior that interferes with the learning environment. Such behavior includes, but is not limited to, disruptive conversations with fellow students, regular tardiness, sleeping, and leaving the classroom during class time. Students are expected to turn off all pagers, cell phones, and other electronic devices during class time.

**Makeup Work/Late Assignments**

In general no late assignments will be accepted.  Unless drastic circumstances occur those deadlines are firm. Contact me as soon as possible for any hoped for exceptions.

**Assignment Point Values / Grading Policies**

*Point totals will be collected together and your grade will be based on the grades below.* You can keep track of your grade on MyMathLab.  If you believe any grade to be in error, please discuss it with me.  If you are not satisfied with our discussion, you make take your concern to the dean of this school.  Contact me, your program director or your advisor if you feel like you need help with this course.

***Assignment Points***

**Tests**​ **100**

**Final Exam 200**

**Quizzes 30**

**Homework 10**

**Class Activities 5 – 15**

***Letter Grade Percent***

A 90% or above

B 80% - 89%

C 70% - 79%

D 60% - 69%

F below 60%

**Special Needs:** If you have a verified need for an academic accommodation or materials in alternate media (i.e., Braille, large print, electronic text, etc.) per the Americans with Disabilities Act (ADA) or Section 504 of the Rehabilitation Act, please contact me as soon as possible.