

## Math105-01 College Algebra 1st Session, Su'05

**Instructor:** Jon Hasenbank (pronounced "Hāz' · in · bank")  
**Office:** 2-232 Wilson  
**Phone:** 994-5360 (before 2:00pm on class days)  
**Email:** jfhasenbank@montana.edu (if I'm not in my office)  
**Required Text:** *College Algebra*, 3rd edition, by Robert Blitzer  
**Office Hours:** Monday: 10 - 10:30am and Learning Center: 10:30 - 11:30am;  
Tuesday: 10 - noon; Thursday: 10 - 10:30am; others by appointment.

**Course Web Page:** The course web page includes a copy of this syllabus, handouts, homework assignments, and other course information. I will also post corrections and other important news at this site:

<http://www.math.montana.edu/~hasenban/m105su05/index.html>

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### Students are expected to:

- Ensure that you have met the pre-requisites for the course. Believe it or not, pre-requisites are in place for your benefit!
- Attend class regularly, arrive on time, and stay for the duration of the lecture.
- Be respectful, attentive, and interactive during class: Take good notes, ask and respond to questions, and avoid being a distraction to others.
- Complete the assigned homework.
- Organize notes, worksheets, other hand-outs, and completed homework in a three-ring binder (or equivalent). Bring it to class / office hours with you.
- Read (at least skim) each section before class.
- Seek help before it's too late! A ten-minute visit to my office (or the Math Learning Center, open Mon. - Thur. till 11:30am) may save you hours of frustration.

**Quizzes:** The six-week summer session covers 14 weeks of material, so each meeting covers roughly one week's worth of material. Therefore, we will have daily quizzes (except on exam days) which will cover the homework from the previous meeting(s). At least one question from each quiz will be taken directly from recently assigned homework. **I do not give quiz retakes**, and if you are absent for a quiz you will receive a zero. However, I will drop your lowest 2 quiz scores before calculating your final score for the course (expect 10-12 quizzes).

**Minute-papers.** After each lecture component, I will ask you to write down (a) what you think was the big point of the new material and (b) one question about the new material. These sorts of reflections have been shown to greatly improve long-term memory for the material you are studying, and they provide an excellent opportunity for us to communicate with one another. I will read, respond, and return your one-minute papers every day. These will be graded on a 0-2 scale based solely on effort, and will count for 20 points of your final grade.

### GRADING:

Homework:	50 points (10%)
Quizzes:	80 points (16%)
One-minute Papers:	20 points (4%)
Midterm Exam 1:	100 points (20%)
Midterm Exam 2:	100 points (20%)
Cumulative Final:	150 points (30%)
<b>Total:</b>	<b>500 points (100%)</b>

**You will need a graphing calculator for this course.** I recommend a TI-81/82/83/85/86. TI-89/92 will not be allowed on quizzes or exams, nor will any other calculator (including HP's) that will "do the work for you." If you are unsure whether your calculator will be acceptable, please ask me.

**Homework.** I will collect your homework every day. If it is complete, you will receive 7/10. In addition, I will grade 3 problems "at random" and award up to an additional 3/10 points. Late (but completed) assignments will be scored 7/10.

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(Tentative Schedule)

MONDAY	TUESDAY	THURSDAY
<b>May 16</b> Intro & P1 - Real Numbers & Algebraic Expressions  P2 & P3 - Exponents, Radicals, and Rational Exponents	<b>17</b> P4 - Polynomials  P5 - Factoring Polynomials	<b>19</b> P6 - Rational Expressions  1.1 - Graphs and Graphing Tools
<b>23</b> 1.2 - Linear Equations  1.3 - Formulas and Applications	<b>24</b> 1.4 - Complex Numbers  1.5 - Quadratic Equations	<b>26</b> Review  <b>EXAM 1</b>
<b>30</b> <b>Memorial Day</b>  <b>(Holiday)</b>	<b>31</b> 1.6 - Other Types of Equations  1.7 - Linear Inequalities	<b>2</b> 2.1 - Lines and Slope  2.2 - Distance and Midpoint Formulas; Circles
<b>6</b> 2.3 - Basics of Functions  2.4 - Graphs of Functions	<b>7</b> 2.5 - Transformations of Functions  2.6 - Combinations of Functions; Composite Functions	<b>9</b> Review  <b>EXAM 2</b>
<b>13</b> 2.7 - Inverse Functions  3.1 - Quadratic Functions	<b>14</b> 3.2 - Polynomial Functions and Their Graphs  3.3 - Dividing Polynomials: Remainder and Factor Theorems	<b>16</b> 4.1 - Exponential Functions  4.2 - Logarithmic Functions
<b>20</b> 4.3 - Properties of Logarithms  4.4 - Exponential and Logarithmic Functions	<b>21</b> 4.5 - Modeling with Exponential and Logarithmic Functions  Review	<b>23</b> Review  <b>FINAL EXAM</b>

- The information on this syllabus is subject to change at the discretion of the instructor -