

Instructor Name: Mr. Brian Zimmerman
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Office Location: 322 Hume Hall
Office Hours: MW 8:00-9:50 am, 1:00-1:50 pm;
F 8:00-9:50 am; or by appt.

TEXT/SOFTWARE (REQUIRED): College Algebra, 2/E Custom Edition w/MyMathLab Student Access Kit by Kirk Tristed

LEARNING OUTCOMES: Students who successfully complete Math 121 will be able to perform the following tasks:

- Simplifying Rational Expressions
- Adding, Subtracting, Multiplying, and Dividing Rational Expressions
- Simplifying Complex Rational Expressions
- Solving Linear Equations in One Variable
- Solving Equations Containing Rational Expressions
- Solving Linear Inequalities in One Variable
- Solving Quadratic Equations by Factoring, Square Root Property, Completing the Square, and Quadratic Formula
- Solving Higher Order Polynomial Equations by Factoring
- Solving Higher Order Polynomial Equations using the Quadratic Formula
- Solving Equations Containing Radicals
- Finding Intercepts of a Linear Equation in Two Variables and Graphing Linear Equations by Plotting Intercepts
- Graphing Horizontal and Vertical Lines
- Finding the Slope of a Line Given Two Points, or Given the Equation of the Line
- Graphing Linear Equations in Two Variables using the Slope and a Point on the Line
- Using Point-Slope Form and Slope-Intercept Form to write the Equation of a Line
- Finding the Equations of Parallel and Perpendicular Lines
- Finding the Domain and Range of a Relation Given a Set of Ordered Pairs, or Given the Graph of the Relation
- Determining Whether or Not a Relation is a Function using the Graph or an Equation
- Evaluating Functions; Difference Quotient
- Finding the Domain of a Function
- Combinations of Functions
- Compositions of Functions
- Finding the Inverse of a One-to-One Function
- Finding the vertex of a Quadratic Function of the form $f(x) = a(x - h)^2 + k$
- Finding the vertex of a Quadratic Function of the form $f(x) = ax^2 + bx + c$
- Finding the intercepts of the Graph of a Quadratic Function
- Graphing Quadratic Functions using the Vertex, Intercepts, and Two Other Points
- Graphing Higher Order Polynomial Functions
- Dividing Polynomials using Long Division and Synthetic Division
- Using the Remainder and the Factor Theorem to Determine Zeros of Higher Order Polynomial Functions
- Finding Equations of Vertical, Horizontal, and Slant Asymptotes of a Rational Function
- Solving Polynomial Inequalities
- Solving Rational Inequalities
- Solving Exponential Equations
- Applications of Exponential Functions
- Applications of the Natural Exponential Function
- Using the Basic Properties of Logarithms
- Using the Change of Base Property of Logarithms
- Using the Power Rule, Quotient Rule, and Power Rule to Expand Logarithmic Expressions
- Using the Power Rule, Quotient Rule, and Power Rule to Condense Logarithmic Expressions
- Solving Logarithmic Equations
- Solving Systems of Equations in Two Variables using the Substitution Method
- Solving Systems of Equations in Two Variables using the Elimination Method

HOMEWORK:

- Homework will be assigned for each section of material covered, and will count for a total of 100 points.
- Homework assignments will be done on the computer using the MyMathLab software.
- Homework assignments may be done as many times as needed before the due date, with only the best score counting toward the student's grade.
- Homework must be submitted by 11:59 p.m. on the due date.
- Homework assignments may be completed after the due date for half credit.
- Homework assignments will not be accessible after the grace period.
- Any non-submitted homework assignment will be given a grade of zero (0).

TESTS:

- There will be three (3) regular tests during the semester.
- Test will be taken on the computer in the Jackson Center Math Lab using the MyMathLab software.
- Each test will count 100 points toward the student's final grade.
- If a test is missed for ANY reason, a grade of zero (0) will be given
- **THERE ARE NO MAKE-UP TESTS GIVEN FOR ANY REASON.**
- The lowest of the three regular test scores will be replaced at the end of the semester by the final exam percentage, provided the final exam percentage is higher than the lowest regular test score.
- Any student who must miss a scheduled test because of an official University function must reschedule and take the test at a time BEFORE the exam is scheduled to be given. NO OTHER rescheduling will be allowed.

FINAL EXAM:

- The final exam is comprehensive, consists of 50 multiple-choice questions, and will count 200 points.
- Students will be given a maximum of three (3) hours to complete the final exam.
- Any student who must miss the final exam because of an official University function must reschedule the exam on some other mutually satisfactory date.
- Any student having three or more final exams scheduled for the same day will arrange with the instructor to take either the 12:00 p.m. OR the 7:30 p.m. exam on some other mutually satisfactory date.
- Every student must take the final exam at the time scheduled. The only exceptions are the students affected by the two situations above.
- An "I" grade will not be given without the permission of the Department of Mathematics.

FINAL GRADE: The cumulative total for the course is 600 points: (300 Tests, 100 HW, 200 Final Exam)

<u>Grade</u>	<u>Points Necessary for Grade</u>
A	555 – 600 = 93% - 100%
A-	537 – 555 = 90% - 92%
B+	519 – 537 = 87% - 89%
B	495 – 519 = 83% - 86%
B-	477 – 495 = 80% - 82%
C+	459 – 477 = 77% - 79%
C	417 – 459 = 70% - 76%
D	357 – 417 = 60% - 69%
F	below 357

COMPUTER LAB REQUIREMENT: Students must attend the Jackson Center Math Lab for at least fifty (50) minutes each week.

- **For classes that meet MWF, the lab week begins each Monday and ends on the following Friday.**
- **For classes that meet TTh, the lab week begins each Tuesday and ends on the following Monday.**
- Students who do not attend the lab for at least fifty (50) minutes in a given week will be counted absent in the lab for that week.
- The Old Walmart building in the Oxford Mall is now known as the Jackson Center. Our lab is in this complex and simply known as the Mathematics Lab, located in **Room A01**. The students will enter the main entrance to the building and take an immediate left to find the lab.
- There is a direct shuttle from campus to the Jackson Center, **the Brown route of the OUT system**, and will run between the Jackson Center and the Paris-Yates Chapel every 5 or 10 minutes. **Note that the last bus departing the Jackson Center will be at 9:15pm each day.**
- The Jackson Center parking lot is one of the "Park and Ride" lots. This means that students with other parking decals (such as dorm/fraternity/sorority decals) will not be able to park at the Jackson Center until after 5pm. UPD will give tickets if students with other decals park in the lot before 5:00 p.m.

**JACKSON CENTER MATH LAB HOURS – SPRING 2014: Monday – Thursday: 10:00 a.m. – 6:00 p.m.
Friday: 10:00 a.m. – 5:00 p.m.**

MATH COMPUTER LAB RULES:

- Students will not be admitted to the lab without your Ole Miss ID.
- You must “swipe” your ID each time you enter and leave the lab, no matter what the reason (bathroom, phone call, water fountain).
- It is your responsibility to keep up with your lab time each week, the desk workers will not tell you how long you were in the lab for a week.
- Since your time in Jackson Center is class time, you must work on math while in the lab! You are not allowed to browse the internet, check email, or work on other subjects in the lab. You are permitted to work from your math textbook or look at power point slides and lecture notes posted by your teacher. **If you are caught not working on math, you will be asked to leave the lab and will lose time for that week, no exceptions!!!!**
- **No food or drink in the lab.**
- **No personal laptops allowed in the lab.**
- No talking or text messaging on cell phones while in the lab!! If you must take a call, please swipe out of the lab and take the call elsewhere. **Students who talk on phones or text in the lab will be asked to leave the lab and will lose the time for that week, no exceptions!!!!**

ATTENDANCE POLICY: There is an attendance policy in this class.

- Students are allowed a cumulative total of five (5) absences without penalty.
- Absences gained from non-attendance in Math Lab count toward the student’s cumulative total.
- Students who accumulate more absences than are allowed will have ten (10) points deducted from their final point total FOR EACH absence above the limit.
- Students must take the responsibility of telling the instructor in advance if they must leave early, and must discuss with the instructor immediately after class if they entered the classroom after class has begun. It is the student’s responsibility to make sure that their attendance record is correct.

TESTING INFORMATION:

- Tests will be administered on the computer in the Jackson Center Math Computer Lab.
- Each student will be given a maximum time of 70 minutes to complete his or her test.
- **Under no circumstance will a late or make-up test be given to any student.**

TEST 1: Tuesday-Friday, February 18-21, covering sections R.6, 1.1, 1.4, 1.6, 1.7, 2.3, 2.4

TEST 2: Tuesday-Friday, March 25-28, covering sections 3.1, 3.5, 3.6, 4.1, 4.3, 4.4, 4.6

TEST 3: Tuesday-Friday, April 22-25, covering sections 1.9, 5.1, 5.2, 5.3, 5.4, 5.5, 7.1

JACKSON CENTER MATH LAB TESTING:

- Students in this course will take their tests via computer in the Mathematics Lab at the Jackson Avenue Center.
- Tests will be available on Tuesday, Wednesday, Thursday, and Friday of test weeks.
- Tests must be completed in the Jackson Center Math Lab by 5:00 pm on Friday of test weeks, regardless of class meeting days.
- In order to take a test, students must schedule an appointment. The lab will not accept walk-ups.
- Students can begin scheduling appointments the week prior to test week at <http://ummathlab.appointy.com/>. Note that you must use your olemiss.edu email address when you register.
- In order to avoid disturbing other test takers, students MUST be on time for their appointment (10 minutes early would be better).
- If a student is more than 5 minutes late, their appointment will be cancelled and they will not be allowed to enter the lab, and the student will then have to go back to <http://ummathlab.appointy.com/> and reschedule their test.

CALCULATORS AND ELECTRONIC DEVICES:

- A scientific calculator is required to complete homework assignments in college algebra.
- Students will use the calculator installed on the computers in the Jackson Center Math Lab when taking tests.
- Personal scientific calculators, graphing calculators and calculators with a Computer Algebra System and/or a QWERTY keyboard are not allowed during tests.
- Cell phone calculators are also prohibited.
- **Use of cell phones or ANY personal calculators while taking a test will be considered academic dishonesty and if you are caught using them, you will receive a grade of zero (0) on said test, and that test grade will not be replaced by the Final Exam percentage at the end of the semester.**

All cellular phones, pagers, and other electronic equipment should be turned off during class, during movies, in churches, in bookstores and restaurants, in elevators, and especially while operating a motor vehicle.

CHEATING: The following statement is the policy of the Department of Mathematics regarding cheating:

Offenses: Cheating on any exam, quiz, homework, work to be completed in class; theft or attempted theft of exam questions; use of prohibited technology; or possession of exam questions prior to the time for examination; shall all be offenses subject to appropriate penalties.

Penalties: The penalty for commission of any offense set out above is failure in the course and, subject to the approval of the Chancellor, dismissal or suspension from the university.

WITHDRAWAL DEADLINE FOR SPRING 2014 SEMESTER: Tuesday, March 4

- After the course withdrawal deadline, a student may withdraw from a course only in cases of extreme and unavoidable emergencies as determined by the academic dean.
- Withdrawing from a course after the deadline will not be permitted because of dissatisfaction over an expected grade or because the student has changed his or her major.
- After the course withdrawal deadline, courses dropped will be recorded on University records and the W grade will be recorded if the student is not failing the course at the time of withdrawal; otherwise, the grade recorded will be F.

TTh Course Outline - MATH 121 Spring 2014

	<u>Date</u>	<u>Assignments</u>	<u>Due Dates</u>
Week 1	Jan 20-24	Syllabus/MyMathLab Set-up	
Week 2	Jan 27-31	R.6 Homework 1.1 Homework	Jan 29 @ 11:59 pm Jan 31 @ 11:59 pm
Week 3	Feb 3-7	1.4 Homework 1.6 Homework 1.7 Homework	Feb 5 @ 11:59 pm Feb 5 @ 11:59 pm Feb 7 @ 11:59 pm
Week 4	Feb 10-14	2.3 Homework 2.4 Homework	Feb 12 @ 11:59 pm Feb 14 @ 11:59 pm
Week 5	Feb 17-21	TEST 1: R.6, 1.1, 1.4, 1.6, 1.7, 2.3, and 2.4	February 21 @ 5:00 pm
Week 6	Feb 24-28	3.1 Homework 3.5 Homework 3.6 Homework	Feb 26 @ 11:59 pm Feb 28 @ 11:59 pm Feb 28 @ 11:59 pm
Week 7	Mar 3-7	4.1 Homework 4.3 Homework	Mar 5 @ 11:59 pm Mar 7 @ 11:59 pm
	Mar 10-14	SPRING BREAK – No Class	
Week 8	Mar 17-21	4.4 Homework 4.6 Homework	Mar 19 @ 11:59 pm Mar 21 @ 11:59 pm
Week 9	Mar 24-28	TEST 2: 3.1, 3.5, 3.6, 4.1, 4.3, 4.4, 4.6	March 28 @ 5:00 pm
Week 10	Mar 31 – Apr 4	1.9 Homework 5.1 & 5.2 Homework	Apr 2 @ 11:59 pm Apr 4 @ 11:59 pm
Week 11	Apr 7-11	5.3 Homework 5.4 Homework	Apr 9 @ 11:59 pm Apr 11 @ 11:59 pm
Week 12	Apr 14-18	5.5 Homework 7.1 Homework	Apr 16 @ 11:59 pm Apr 18 @ 11:59 pm
Week 13	Apr 21-25	TEST 3: 1.9, 5.1, 5.2, 5.3, 5.4, 5.5, 7.1	April 25 @ 5:00 pm
Week 14	Apr 28 – May 2	Final Exam Review	
Week 15	May 5-9	Final Exams	

ACADEMIC NEEDS: It is the responsibility of any student with a disability who requests a reasonable accommodation to contact the Office of Student Disability Services (915-7128). Contact will then be made by that office through the student to the instructor of this class. The instructor will then be happy to work with the student so that a reasonable accommodation of any disability can be made.

SPECIAL DATES:

Classes begin:	Wednesday, January 22
Withdrawal Deadline:	Tuesday, March 4
Thanksgiving Break:	Monday-Friday, March 10-14
Good Friday:	Friday, April 18
Classes end:	Friday, May 2
Final Exams:	Monday-Friday, May 5-9