# MATH 121, College Algebra, Fall 2015 University of Mississippi 3 credit hours

#### **INSTRUCTOR INFORMATION:**

**Instructor name:** 

Michael Azlin

Office: Hume Hall, Room 218

#### **CONTACT INFORMATION:**

If you have questions concerning the content of the course, you may contact me directly using the Email Your Instructor link on the Lessons page. NOTE: Whenever sending email, please be sure to indicate your course title and number in the subject line.

For test administration issues, please contact the Distance Education Testing Lab.

The University of Mississippi, Department of
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#### **COURSE DESCRIPTION:**

This is a 23-section web course in Algebra; the course is entirely online. Topics include linear, quadratic, higher-order, rational, radical, exponential, and logarithmic equations. Other topics consist of linear inequalities, rational inequalities, the algebra of functions (including polynomial, rational, exponential, and logarithmic functions), the graphs of some of these functions, and systems of equations in two variables.

# **TEXTBOOK INFORMATION:**

<u>Required Software + eBook Bundle</u>: *College Algebra: A Concise Approach*, by Paul Sisson; <u>ISBN</u>: 9781941552773

#### **Hawkes Learning Systems**

Instructor Name: Online Algebra (Note, although I am your instructor, the listing on Hawkes is Online

Algebra!)

**Section Name: Online Fall 2015** 

The ISBN above is for the <u>required</u> Software + eBook Bundle. The eBook (digital textbook) and software are good for life. <u>DO NOT</u> purchase a used License Number or Access Code (from other students or online vendors), as License Numbers and Access Codes are registered to the original purchaser only. You <u>should not</u> download and install anything; <u>follow the instructions on Blackboard</u> for enrolling in the Hawkes portion of the course. For those who may want a "physical" book, it is suggested that you use either: *College Algebra, 2<sup>nd</sup> Edition*, by Paul Sisson; ISBN: 9781932628272, or *College Algebra: A Concise Approach*, by Paul Sisson; ISBN: 9781935782025. Both of these are usually under \$10 on Amazon.

It is your responsibilility to obtain the software and eBook for this course.

Use the ISBN number in this syllabus to make sure you get the exact software bundle required in this course.

# COURSE OBJECTIVES – STUDENTS WHO SUCCESSFULLY COMPLETE MATH 121 WILL BE ABLE TO:

- Solve linear, rational, and radical equations in one variable.
- Solve quadratic and higher order polynomial equations using a variety of methods; graph these functions.
- Write the equation of a line in various forms, as well as find slope, intercepts, and graph linear equations.
- Evaluate, combine, compose, and find inverses of functions; determine the domain of a function.
- Divide polynomials using long division and synthetic division, and determine zeros of polynomial functions.
- Find equations of vertical, horizontal, and oblique asymptotes of a rational function.
- Solve linear, polynomial, and rational inequalities in one variable.
- Solve logarithmic and exponential equations; solve application problems with exponential functions.
- Set-up and solve systems of equations in two variables using the substitution and elimination methods.

# **COURSE OUTLINE:**

This course consists of 23 instructional modules (or sections). There are an additional six optional sections covering basic skills worth bonus points (see Homework section below).

UNITS	Blackboard and Hawkes Material	Due for Grades	Due by 11:59pm on:
1	2.1a Linear Equations in One Variable	Hawkes assignments	9/3/2015
	2.2 Linear Inequalities in One Variable	Hawkes assignments	9/3/2015
	2.3 Quadratic Equations in One Variable	Hawkes assignments	9/3/2015
Quiz 1	Non-proctored Quiz in Hawkes. You have three attempts at 90 minutes per attempt. Only your best score will count.	Quiz	9/4/2015
2	2.4 Higher Degree Polynomial Equations	Hawkes assignments	9/14/2015
	2.5 Rational Expressions and Equations	Hawkes assignments	9/14/2015
	2.6 Radical Equations	Hawkes assignments	9/14/2015
Quiz 2	Non-proctored Quiz in Hawkes. You have three attempts at 90 minutes per attempt. Only your best score will count.	Quiz	9/15/2015
3	3.2 Linear Equations in Two Variables	Hawkes assignments	9/24/2015
	3.3 Forms of Linear Equations	Hawkes assignments	9/24/2015
	3.4 Parallel and Perpendicular Lines	Hawkes assignments	9/24/2015

Quiz 3	Non-proctored Quiz in Hawkes. You have three attempts at 90 minutes per attempt. Only your best score will count.	Quiz	9/25/2015
Bonus	All Bonus Homework Sections	Hawkes assignments	9/27/15
Practice Exam 1	Non-proctored and untimed practice exam in Hawkes for bonus points with unlimited attempts (best score counts).	untimed practice exam in Hawkes for bonus Practice exam	
Course Exam 1	minute) time limit. The exam opens at 12:00 a m. on		10/2/15
4	4.1 Relations and Functions	Hawkes assignments	10/11/15
	4.5 Combining Functions	Hawkes assignments	10/11/15
	4.6 Inverses of Functions	Hawkes assignments	10/11/15
Quiz 4	Non-proctored Quiz in Hawkes. You have three attempts at 90 minutes per attempt. Only your best score will count.	Quiz	10/12/15
	4.2a Linear and Quadratic Functions	Hawkes assignments	10/20/15
5	A.1 Introduction to Polynomial Equations and Graphs (excluding complex numbers)	Hawkes assignments	10/20/15
	A.2 Polynomial Division and the Division Algorithm (excluding complex numbers)	Hawkes assignments	10/20/15
Quiz 5	Non-proctored Quiz in Hawkes. You have three attempts at 90 minutes per attempt. Only your best score will count.	Quiz	10/21/15
6	6.1a Rational Functions	Hawkes assignments	10/29/15
	6.1b Rational Inequalities	Hawkes assignments	10/29/15
Quiz 6	Non-proctored Quiz in Hawkes. You have three attempts at 90 minutes per attempt. Only your best score will count.	Quiz	10/30/15
Practice Exam 2	Non-proctored and untimed practice exam in Hawkes for bonus points with unlimited attempts (best score counts).	Practice exam	11/6/15
Course Exam 2	Proctored course exam in Hawkes with a two-hour (120 minute) time limit. The exam opens at 12:00 a.m. on 11/2/2015.	Course Exam	11/6/15
7	7.1 Exponential Functions and their Graphs	Hawkes assignments	11/12/15
	7.2 Applications of Exponential Functions	Hawkes assignments	11/12/15
	7.3 Logarithmic Functions and their Graphs	Hawkes assignments	11/12/15
Quiz 7	Non-proctored Quiz in Hawkes. You have three attempts at 90 minutes per attempt. Only your best score will count.	Quiz	11/13/15
8	7.4 Properties and Applications of Logarithms	Hawkes assignments	11/19/15

	7.5 Exponential and Logarithmic Equations	Hawkes assignments	11/19/15
	8.1 Solving Systems by Substitution and Elimination	Hawkes assignments	11/19/15
Quiz 8	Non-proctored Quiz in Hawkes. You have three attempts at 90 minutes per attempt. Only your best score will count.	Quiz	11/20/15
Practice Final Exam	Non-proctored and untimed practice exam in Hawkes for bonus points with unlimited attempts (best score counts).	Practice exam	12/11/15
Final Exam	Proctored comprehensive final exam in Hawkes covering <b>ALL SECTIONS</b> . There will be a two-hour (120 minute) time limit on the final exam. The exam opens at 12:00 a.m. on 12/7/2015.	Final Exam	12/11/15

# **GRADING:**

# **GRADING SCALE**

Grade	Percentage Necessary
A	93
A-	90
B+	87
В	83
B-	80
C+	77
C	70
D	60
F	Below 60

# **GRADING INFORMATION:**

# The grading format is as follows:

- Homework Average = 10%
- Quiz Average = 15%
- Course Exams 1 and 2 = 20% each (40% total), (Note: The lower of the two course exam percentages will be replaced by the final exam percentage if the final exam percentage is higher.)
- Final Exam = 35%
- Practice Exam Average = 5% Bonus

Note: Grading calculations are done automatically in Hawkes.

You can do hypothetical grade simulations with the following formula:

Course Average = 0.1\*(Homework Avg) + 0.15\*(Quiz Avg) + 0.2\*(Course Exam 1) + 0.2\*(Course Exam 2) + 0.35\*(Final Exam) + 0.05\*(Practice Exam Avg)

Remember, in the formula above, the lower of the two course exam grades will be replaced by the final exam grade--if the final exam grade is higher (thus the final has the potential to be worth 55% of your overall grade).

#### FAILURE TO TAKE THE FINAL EXAM WILL RESULT IN FAILURE OF THE COURSE

#### **TESTING INFORMATION:**

A student who wishes to receive credit for an online course must take all required exams under the supervision of an approved test site official (a proctor). Ole Miss Online has a testing facility (<u>DETL</u>, the Distance Education Testing Center at UM) to proctor tests for students in the Oxford area. Students near Tupelo, Southaven, Grenada or Booneville can use our regional campus testing centers. If you are testing in Oxford, you will schedule via Register Blast (the "Exam Scheduling" button on the left side of the page). If you are unable to test in Oxford or at one of the regional campus testing centers, then you may use <u>ProctorU</u> (you must pay for this service).

# **ADDITIONAL INFORMATION:**

ATTENDANCE: While there is no attendance in the traditional sense in this course, a new university policy dictated by federal guidelines requires me to notify the Registrar if you have not completed an assignment within two weeks of the beginning of the semester. If this happens, then it is very likely that you will be administratively dropped from the course!

#### **CALCULATORS**

Only non-graphing calculators are allowed for the proctored testing in this course. It is suggested that you use a non-graphing calculator for all other work so that you are acclimated come test time. The suggested calculator for use is the TI-30XS Multi-View (this is the model provided at DETL).

# **HOMEWORK**

- Homework is assigned for each of the sections covered (23 total), and it will count as 10% of your overall grade.
- Homework assignments may be done on any computer connected to the internet using Hawkes.
- Read through the "Learn" mode (or the eBook for a deeper presentation) of each section (watch the video and slide presentation!).
- Work through the "Practice" mode of each section (utilize the tutor tab when needed!).
- When you have gone through "Learn" and "Practice," complete the assignment in the "Certify" mode.
- In order to receive credit for homework it must be done in the "CERTIFY" mode.
- Each assignment is an "all or nothing" proposition. That is, you have to answer each and every question in an assignment correctly in order to "Certify" and receive credit for that assignment.
- You have an unlimited number of attempts at each question as long as you do not accept a "Strike."
- Accepting a "Strike" for an incorrect answer in the "Certify" mode will force you to restart the assignment from the beginning, so always select "Try Similar Question" after an incorrect response (unless you just want to start anew).
- There are six assignments (1.1, 1.2, 1.3a, 1,4a, 1.4b, 1.5) that are "bonus" homework assignments. These sections cover topics that are not taught in this class, but they are topics that you should be very familiar and comfortable with. You are strongly encouraged to do these assignments. Completion of these assignments can add 20% to your homework grade (2% to your overall course grade, depending on how many you complete). To receive credit, these assignments must be completed by 9/27/2015.
- You should keep a "homework" notebook of all problems worked.
- Late homework will incur a 10% per-day penalty for up to three (3) days. After three days, no credit will be awarded.

#### **QUIZZES**

- Your quiz average will count as 15% of your overall grade.
- There are a total of eight (8) quizzes during the course.
- Quizzes may be done on any computer connected to the internet using Hawkes.
- Quizzes have a 90-minute time limit, but they are not proctored.
- You have three (3) attempts at each quiz, with only your best score recorded.
- Questions will be similar in format to the homework problems.
- Your lowest quiz score will be dropped.
- You may review quizzes as soon as they are submitted.
- There are no make-ups!

#### PRACTICE EXAMS

A practice exam has been created for each of the course exams and for the final exam. Like the homework, these practice exams are VERY useful and powerful tools. The practice exams are built from the quizzes. Each course exam and the final exam will be built directly from its respective practice exam. It is suggested that you work EACH of them prior to the actual exam. In addition to gaining essential practice, you will receive BONUS POINTS based on your practice exam scores.

- There are a total of three (3) practice exams in the course.
- Practice exams are not proctored, and they are untimed (you should time yourself to get used to a clock—about 120 minutes should be the max (180 for the practice final)).
- Questions will be similar in format to the homework and quizzes.
- Practice exams may be done on any computer connected to the internet using Hawkes.
- You have an unlimited number of attempts for each exam, with only your best score recorded.
- Your practice exam average can add up to five (5) percentage points to your overall course grade.
- You may review practice exams as soon as they are submitted.

# MIDTERM COURSE EXAMS

- There are two (2) course exams during the semester.
- Each course exam is built from its respective practice exam.
- The course exams have a two-hour (120 minute) time limit on each exam, and they are proctored.
- Course Exam 1 will cover all material up to that point, and Course Exam 2 will cover all material since Exam 1.
- Course exams will be taken on a computer using Hawkes at a proctoring site.
- You must arrive at the correct answer to receive credit. Partial credit will only be awarded in rare circumstances.
- Course exams will be reviewed within 2 days (usually within 1), for scoring errors and partial credit. It is possible that scores will go up, but never down.
- Each course exam will count as 20% (for a total of 40%) of your overall grade.
- The lower of the two course exam percentages will be replaced by the final exam percentage if the final exam percentage is higher.
- You will only be able to review course exams after the deadline for submission (although you will get your score instantly).
- There are no make-ups!

#### FINAL EXAM

- There is a comprehensive final exam in this course covering material from both course exams <u>as well as</u> sections 7.1, 7.2, 7.3, 7.4, 7.5, and 8.1.
- The final exam is built from the practice final (which is built from the two course exams and the last two quizzes).
- There will be a two-hour (120 minute) time limit on the final exam, and it will be proctored.
- The final will be taken on a computer using Hawkes at a proctoring site.
- You must arrive at the correct answer to receive credit. Partial credit will only be awarded in rare circumstances.
- The final exam will be reviewed within 2 days (usually within 1), for scoring errors and partial credit. It is possible that scores will go up, but never down.
- The final exam will count as 35% of your overall grade (55% if higher than the lowest course exam grade).
- You will not get your score until I complete my review, and you will only be able to review by making an appointment.

#### FAILURE TO TAKE THE FINAL EXAM WILL RESULT IN FAILURE OF THE COURSE

#### A LAST WORD

Algebra is not a spectator sport; it requires active participation and PRACTICE. You can "study," you can "review," and you can watch someone do examples; however, above all else, you must PRACTICE. There are no assignments in the course that are meant as "busy work." They have been created for each section of material, and are intended to prepare you for the quizzes and exams. They are VERY useful and powerful tools, as the quizzes, and exams will be built from these assignments.

# ADA AND STUDENT DISABILITY SERVICES:

The University of Mississippi is committed to ensuring equal access to an education for enrolled or admitted students who have disabilities under Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 (ADA). The office serves those with physical, nonphysical, and mental disabilities. University policy calls for reasonable accommodations to be made for eligible students with verified disabilities on an individualized and flexible basis.

It is the responsibility of any student with a disability who requests a reasonable accommodation to contact the Office of Student Disability Services (662-915-7128) in 234 Martindale Center to be verified with that office. SDS will then contact the instructor through the student by means of an Instructor Notification of Classroom Accommodations form. In addition, you must contact DETL if you receive testing accommodations. For more information, please visit their website at <a href="http://www.olemiss.edu/depts/sds">http://www.olemiss.edu/depts/sds</a>.

# M BOOK: ACADEMIC DISHONESTY / Plagiarism:

You should not share your private personal passwords (for your Blackboard account or for your email) with anyone else, including brothers or sisters, boyfriends or girlfriends, or parents. Logs of all your activity within the Blackboard course environment, including the Internet location from which you are accessing Blackboard, are available to the instructor. Any evidence of logins to a student's Blackboard course by someone other than the student will be treated as an act of academic dishonesty and will result, at minimum, with failure in the

course; the student may also be subject to the more severe disciplinary actions outlined in The University Policy on Academic Dishonesty. (ACA.AR.600.001)

Academic Dishonesty is expressly prohibited by The University of Mississippi. See <u>The University of Mississippi's M Book</u>. This includes plagiarism and self-plagiarism. Plagiarism is not only prohibited by the university but it could also be a legal offense (ex: copyright, infringement, fraud, etc.).

- Self-plagiarism is defined as re-using a paper written for another class and submitting it in whole or part
  for credit in another class, without obtaining permission from the instructor prior to the submission of
  the paper.
- Plagiarism is harder to define, but it boils down to representing someone else's ideas as your own.

To be absolutely clear, working with another person to answer submitted questions or any of the test questions is unacceptable. If it is determined that any student has violated this policy, the instructor will take the appropriate steps under The University of Mississippi's Academic Dishonesty policy. These range from failing the course to being suspended from The University of Mississippi.

If you have any questions about plagiarism please consult the web links below.

- The Online Writing Lab at Purdue has a great site on Plagiarism, including a checklist for students: <a href="http://owl.english.purdue.edu">http://owl.english.purdue.edu</a>
- Another good website is How Not to Plagiarize by Margaret Procter, Coordinator of Writing Support, University of Toronto. http://www.writing.utoronto.ca/advice/using-sources/how-not-to-plagiarize
- See "Plagiarism in Colleges in USA" by Ronald B. Standler at <a href="http://www.rbs2.com/plag.htm">http://www.rbs2.com/plag.htm</a> for more information about potential legal issues.

# **SUGGESTIONS FOR ONLINE STUDENTS:**

Set aside a regular time for studying and preparing your lessons.

- Submit the lessons on time, and do not fall behind.
- Review constantly. Do not merely submit new material and permit the old to stagnate.
- Note carefully the mistakes you made when reviewing your quizzess/practice exams/exams. If you have difficulty understanding the explanations given, never hesitate to ask for help.
- Do not hesitate to contact your instructor about any difficulties you may have or any phase of the work you may not understand.

You can contact your instructor in one of these ways:

- 1. Contact your instructor **directly** by using the Email Your Instructor link to send an email via Blackboard. You can usually expect a reply within 24 hours, except on weekends when it may take longer.
- 2. Use the discussion board on Blackboard (this is a great way for students to help each other)!

Do not let unanswered questions keep you from getting the maximum out of each lesson.