Instructor: Office Hours:

e-mail:

Lizheng Tao (Leeds) Classroom: TR 9:30-10: 30 pm Office:

ltao@math.okstate.edu

LSE 215 MSCS 442 744-2294

Course Web Page:

Telephone: oc.okstate.edu (log in by using your OSU email id and password and

go to the course and the content)

Syllabus Attachment. OSU has compiled useful information that applies to all classes at http://osu.okstate.edu/acadaffr/aa/syllabusattachment-Summer.htm This website includes add/drop/withdrawal dates, university holidays, accommodations for students with disabilities, academic resources, and much more. You are responsible for reading this information now and having any questions answered.

Introduction. So, what is College Algebra and how does it differ from the algebra courses I studied in high school? Good question! In high school algebra, you were primarily concerned with learning to use the rudiments of algebra - skills, procedures, and manipulations; you were developing "language skills" in mathematics. In College Algebra, we are concerned with building on these skills as they apply to functions and real world applications. College Algebra can be thought of as "the study of functions." One of the goals of this course is that you appreciate functions and the role they play in mathematics.

In this course, we will build upon your previous studies in algebra; throughout, I have given great attention to reinforcing what you have already learned with what is new. This is exciting - you are growing mathematically! We begin by studying some familiar functions linear and quadratic - and then move on to some very special functions - polynomial, rational, exponential, and logarithmic. On our journey, we will explore applications of these functions in the world around us. In the final portion of the course, we will study systems of equations and conic sections and see how these mathematical notions are applied.

This study of College Algebra involves the use of technology - namely, the graphing calculator; it has been carefully integrated into the delivery throughout. Technology can be a tremendous aid in learning mathematics only if it is used appropriately. Technology is not a "quick fix" to learning functions or any mathematics! Because of the importance of technology today, a goal of the course is that you are comfortable with it and that you know when it is appropriate to choose it in learning mathematics. I think you will find technology is a great asset in learning mathematics.

This study of College Algebra involves reading mathematics for meaning and modeling mathematical applications. Among the academic deficiencies regularly observed by instructors of entry level mathematics courses are the problems that students have with (1) dealing with mathematical problems presented in prose style, i.e., reading mathematical statements for meaning, (2) modeling mathematical applications geometrically and algebra ically, and (3) communicating their results in writing.

Course Prerequisites. I assume you have completed the second course in the high school algebra curriculum, Algebra II, or Intermediate Algebra (MATH 0123). Further, I assume some minimal familiarity with a graphing calculator such as the Texas Instruments TI-83.

Course Objectives. To learn college-level algebra as discussed above; to complete the college mathematics requirements for further study of mathematics and of mathematically-dependent subjects.

Required Textbook Package and Supplies.

- <u>Textbook Package</u>. You are required to have the textbook package for the course which consists of the textbook *College Algebra Graphs and Models (4th edition)* by M. Bittinger, J. Beecher, D. Ellenbogen, and J. Penna. Addison Wesley Longman, Inc., 2009 and the manual *Graphing Calculator Manual* by J. Penna, 2009.
- Graphing Calculator. You are required to have a graphing calculator for this course. I will be using a TI-83 Plus graphing calculator for some class demonstrations. You may check out a TI-83/TI-83 Plus graphing calculator from the Mathematics Department (401 MS) for use during the semester while the supply lasts; there is NO charge.

Course Evaluation. There will be a total of 500 points possible in this course, distributed among homework, homework quizzes, hourly exams, and the final exam as shown below. Notice that the final exam score counts twice; thus, it actually contributes 200 points to your grade. Course grades will be determined according to the following distribution.

arbe grades was ev		~		
Homework				100 points
Examination 1				100 points
Examination 2				100 points
Final Examination				100 points
Final Examination				100 points
			TOTAL	500 points
Letter grades will be assigned according to the following scale.				
450 -	500 points	Α	400 - 449 points	В
350 -	399 points	C	300 - 349 points	D
0 -	299 points	F		

Final grades will not be curved.

Examinations. There will be two (2) examinations with a maximum possible score of 100 points each and a 100 point comprehensive final examination which will be recorded twice. *Make-up examinations* will be given only for very **serious and unavoidable** conflicts, and *only if* your request to present a make-up examination is approved by your instructor **in advance**. If this condition is not satisfied, it is understood that the opportunity to present a make-up examination is voided. In the instance that a make-up examination is appropriate, it will be given the last day of Finals Week during the period scheduled for make-up exams. Bring your student ID to each examination.

Exam Dates. Our exams will be held on the following dates; mark your calendar NOW!. I will announce which sections they cover at least two class periods in advance.

Exam 1: June 23 Thursday
Exam 2: July 14, Thursday
Final Exam: July 28, Thursday

Homework Grade. All <u>homework</u> will be collected and selected problems will be graded. Homework must be turned in during class on the date it is due; you must be present for the entire class session to turn in homework. The staff in the mathematics office has been instructed not to accept homework papers. <u>NO LATE HOMEWORK WILL BE ACCEPTED BY THE INSTRUCTOR</u>. There is a total of 120 points possible on the six (6) homework assignments; however, your homework grade will not exceed 100 points.

Homework assignments must be submitted in the following manner:

- 1. Your name will be prominently displayed on each page.
- 2. Textbook page and problem numbers will be prominently displayed.
- 3. Problems will be submitted in the order in which they were assigned.
- 4. The pages will be stapled together.
- 5. You must show all work to receive credit.

If these conditions are not met, your work will not be evaluated; it will be returned to you with the assigned grade of 0.

MLRC: Mathematics Learning Resource Center - NEW LOCATION. The MLRC is an invaluable resource to support your mathematical learning. In particular, the MLRC will offer many hours of tutoring in the general room for College Algebra. They are located on the 4th floor of the Classroom Building (420 CLB, 405-744-5818). For more information, see the Attendance and MLRC Participation handout, visit the MLRC website at www.math.okstate.edu/mlrc, or call 405-744-5688.

Attendance Score: You may earn a maximum of 40 points bonus by attending scheduled class sessions. Each absence will result in deducting 5 points from you attendance score. You are eligible for this bonus at the end of the semester only if you have passed (60% or greater) at least one of the three course examinations. You must also be present at the start of each class meeting and remain for the entire session to be counted present.

Note: No excused Absence.

Participation Score: There will be no points for participation in MLRC. However, visiting MLRC may help you improve your homework scores. Again, MLRC is located in the Classroom Building, room 420.

More on Class Attendance. Class attendance involving active participation is a very important element in your success in learning college algebra. YOU ARE EXPECTED TO ACTIVELY PARTICIPATE IN EACH CLASS SESSION. The Class Attendance Score (40 points maximum) is achieved by your regular attendance at class sessions. Experience has shown a definite correlation between good class attendance and good grades. Your Class Attendance Score is determined by your total number of absences during class sessions. Attendance will be taken during each class session; you must be present for the entire class session in order to be counted as present. For each absence, 5 points will be deducted from the maximum of 40 points. Note: Signing the class Attendance Sheet for another student is not permitted; if it is determined that a student signed in for another student, this unethical conduct will be regarded as a violation of Academic Integrity and the appropriate University policies will be employed. Of course, you won't get anything out of the class if you are there physically but not mentally or if you are unprepared. If you do not actively participate in the class activities, your attendance/participation grade will suffer, even if you have few or no unexcused absences. In addition, if you have not completed the necessary preparation for class, you will lose attendance points. Simply showing up to class is not enough.

Because of the value I place on our class sessions as active learning opportunities, I ask that you assume responsibility for being physically present no later than time the class is scheduled to start, i.e., 10:30 am. If you are late for whatever reason, please respect your classmates and do not interrupt the class session already in progress by coming in. If you do miss a class session, you are responsible for finding out what you missed from a classmate, including any announcements and notes from class discussions. I also realize that you may have a class that follows this one; I will dismiss each class session promptly at time the class is scheduled to end, i.e., 11:45 am.

Drop and Withdrawal Policy (General University Policy 2-0206). "Dropping" means withdrawing from a specific course while "withdrawal" means withdrawing from all courses and leaving the University for the balance of the term. The drop and withdrawal dates are noted on the attached calendar. IT IS YOUR RESPONSIBILITY TO KNOW AND COMPLY WITH ALL DEADLINES. Reasons similar to those listed below will NOT result in approval for dropping a course after the deadline (from OSU Policy 4.03):

- a. Student's lack of knowledge or misunderstanding of the deadline.
- b. Student waited to get the results of an exam or other assignment.
- c. Student's grades have declined since the deadline.
- d. Student doesn't need the course for graduation.
- e. Different deadlines existed at a previous school.

Incomplete Grade. The grade of "I" is given to students who satisfactorily completed the majority of the course work and whose work averages "D" or better, but who have been **unavoidably** prevented from completing the remaining work of the course. A condition that the students must repeat the course in order to remove the "I" is not permitted. The maximum time allowed for a student to remove an "I" is one calendar year.

Academic Integrity. The university has explicit rules governing academic integrity. Please consult the OSU Fall 2008 Syllabus Attachment mentioned above on the web. Working with another person or in study groups on problems can be helpful in learning the material. I encourage you to work together if you find it helpful. However, all written and on line work submitted must be your own. Copying someone else's problem solution, showing your written solution to someone else, or having another person complete your on line work is prohibited; such behaviors are regarded as violations of academic integrity and will be treated according to the University's policy. In order to be successful in learning the material and doing well on the examinations you must think very hard about the problems themselves before discussing them with anyone else.

Special Accommodations for Students. "If you think you have a qualified disability and need special accommodations, you should notify the instructor and request verification of eligibility for accommodations from the Office of Student Disability Services (315 Student Union). Please advise your instructor of your disability as soon as possible, and contact Student Disability Services, to ensure timely implementation of appropriate accommodations. Faculty have an obligation to respond when they receive official notice of a disability but are under no obligation to provide retroactive accommodations." (OSU Summer 2011 Attachment)

Office Hours. I encourage you to come talk to me during my office hours (or email for an appointment if you can't make any of those times) when you have questions or concerns. When you come to my office hours or to the MLRC, you should come prepared with specific questions. We will not give you an overview of the content or summarize the book for you. You should have already taken notes in the lectures, read through and taken notes on the relevant portions of the textbook, and attempted some problems. Be prepared to tell me or the tutor where you are stuck or what concepts are still confusing to you, and we will be happy to help.

Syllabus Attachment: http://osu.okstate.edu/acadaffr/aa/PDF%20Files/SYLATSU.pdf

<u>Final Note.</u> Any changes in this syllabus will be communicated to you by the instructor in class.