

Description. This study of College Algebra involves the use of technology – the use of the graphing calculator has been integrated into the delivery throughout. Online methods are also used. 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.

Course Prerequisites: A minimum score of 30 on the ALEKS assessment. Some minimal familiarity with a graphing calculator such as the Texas Instruments TI-83 or TI-83 Plus is also required.

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

Textbook. You are required to purchase a bundle that includes MyMathLab access, a custom textbook, and a graphing calculator manual. The text is *College Algebra: Graphs and Models* (OSU Custom 2^{nd} edition) by M. Bittinger, J. Beecher, D. Ellenbogen, and J. Penna. Pearson Education, Inc. 2013. Note if you do not register for MyMathLab immediately, you will not be able to complete required homework. You are responsible for registering in time to meet all course deadlines.

Graphing Calculator. You are required to have a TI-83, TI-83 Plus, TI-84, or TI-84 Plus graphing calculator for this course. I will be using a TI-83 Plus graphing calculator for 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 1000 points possible in this course, distributed among homework, quizzes, attendance, MLSC participation, hourly exams, and the final exam as shown below. Course grades will be determined according to the following distribution.

Homework200 pointsWorksheets100 pointsAttendance40 pointsMLSC participation60 pointsMid-Term Exam 1,2,3,4400 points0-599 pointsE	Distribution		Grade
	Worksheets Attendance MLSC participation	100 points 40 points 60 points	900-1000 points A 800-899 points B 700-799 points C 600-699 points D

Examinations. There will be four fifty-minute exams with a maximum possible score of 100 points each and a 200 point comprehensive final examination. *Make-up midterm exams* will be given only for documented, valid and unavoidable conflicts. Your request to receive a make-up exam must be made in writing in advance for known conflicts or in a timely manner when extenuating circumstances arise. If this condition is not satisfied, it is understood that the opportunity to receive a make-up exam is voided. In the instance that a make-up exam is appropriate, the College Algebra course coordinator will schedule and administer the make-up exam in a timely

manner. Bring your student ID to each examination.

Homework. Homework will be completed online using the MyMathLab program. The total number of points possible on homework assignments is 200 points. Late work will not be accepted. The lowest two homework scores will be dropped.

Worksheets. During the semester you will complete Worksheets on weeks when an exam is not scheduled. All work must be shown. The total number of points possible on worksheets is 100 points. Late worksheets will not be accepted. The two lowest worksheet scores will be dropped.

Attendance. Daily attendance is critically important. It is difficult, and sometimes impossible, to succeed in a college course without regular attendance. At least once per day, I will take attendance in some way. For each day you are present in class for the entire class session and actively participating you will receive one attendance point. The total number of attendance points possible for the semester is 44 points, however your score will be calculated based on 40 attendance points.

MLSC Participation. In addition to participating in class daily, you will earn points by using the free resources at the Mathematics Learning Success Center (MLSC). Each week (Sunday-Friday) you are required to spend a minimum of one hour at the MLSC to earn MLSC participation points. Four points will be earned each week beginning the week of August 18 and ending December 7. To ensure that your points are recorded each time that you go to the MLSC, make sure that you *check in and check out with your OSU Student ID* and identify yourself as a College Algebra student. I also encourage you to keep a log of the dates and times that you visited for your own reference. MLSC participation points will not be recorded if your check into the MLSC during the time your class meets. You also need to spend a minimum of 15 minutes working on College Algebra each time you attend the MLSC for the time to count. By the end of the second week of class you will be able to log into the STAR system and view the time you have completed for the week. Please be mindful that the computer is unforgiving: 59 minutes in a week will not earn any MLSC points. To see your time for the week use your okey password at star.okstate.edu.

MLSC: Mathematics Learning Success Center. The MLSC is an invaluable resource to support your mathematical learning. The MLSC is located on the 5th floor of the Library (check in at the front desk). For more information, visit the MLSC website at www.math.okstate.edu/mlsc, or call 405-744-5818 or 405-744-5688.

Electronics in the Classroom. To promote learning and student interaction in the classroom electronic devices will not be permitted. These electronic devices include, but are not limited to cell phones, ipods, ipads, laptops, and earbuds.

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. Experience has shown a definite correlation between good class attendance and good grades. 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. 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 8:30am. 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 session promptly at 9:20am.

Drop and Withdraw Policy. *Dropping* means withdrawing from a specific course while *with-drawal* means withdrawing from all courses and leaving the University for the balance of the term. The drop and withdrawal dates are noted on the syllabus attachment. *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 complete 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 2014 Syllabus Attachment mentioned above.

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 online 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 online 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. Please advise the 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 the receive official notice of a disability but are under no obligation to provide retroactive accommodations. To receive services, you must submit appropriate documentation and complete an intake process

during which the existence of a qualified disability is verified and reasonable accommodations are identified. Call 405-744-7116 or go to sds.okstate.edu. (OSU Fall 2014 Syllabus Attachment)

Office Hours. I encourage you to come talk to me during my office hours or email for an appointment, when you have questions or concerns. When you come to my office hours or to the MLSC, you should come prepared with specific questions. You should have already reviewed your lecture notes, 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.

Monday	WEDNESDAY	FRIDAY
Aug 18th 1	20th 2	22nd 3
Syllabus and MML Registration	§1.1 Introduction to Graphing	§1.2 Functions and Graphs
Getting to know you		Due: Getting to know you, Review, §1.1
Review		
25th 4	27th 5	29th 6
§1.3 Linear Functions, Slope, and	§1.4 Equations of Lines and	§1.5 Linear Equations, Functions,
Applications Due: §1.2	Modeling Due: §1.3, Worksheet 1	Zeros, and Applications Due: §1.4
-	3rd 7	5th 8
Sep 1st		
University holiday	§1.6 Solving Linear Inequalities Due: §1.5, Worksheet 2	§2.1 Increasing, Decreasing, and Piecewise Functions; Applications
	Due. 31.5, Worksheet 2	Due: §1.6
8th 9	10th 10	12th 11
§2.2 The Algebra of Functions	§2.3 The Composition of Functions	§2.4 Symmetry
Due: §2.1	Due: §2.2, Worksheet 3	Due: §2.3
15th 12	17th 13	19th 14
§2.5 Transformations	Exam 1 §1.1–2.3	§2.6 Variation and Applications
Due: §2.4	Due: Sample Exam 1	Due: §2.5
22nd 15	24th 16	26th 17
§3.1 The Complex Numbers	$\S3.2$ Quadratic Equations,	$\S3.2A$ Quadratic Equations,
Due: §2.6	Functions, Zeros, and Models	Functions, Zeros, and Models
	Due: §3.1, Worksheet 4	Due: §3.2
29th 18	Oct 1st 19	3rd 20
§3.3 Analyzing Graphs of Quadratic	§3.4 Solving Rational Equations	§3.5 Solving Equations and
Functions	and Inequalities with Absolute Value	Inequalities with Absolute Value
Due: §3.2A	Due: §3.3, Worksheet 5	Due: §3.4
6th 21	8th 22	10th 23
§4.1 Polynomial Functions and	Exam 2 §2.4–3.5	§4.2 Graphing Polynomial
Modeling	Due: Sample Exam 2	Functions
Due: §3.5	-	§4.3 Long Division of Polynomials
		Due: §4.1
13th 24	15th 25	17th 26
$\S4.3$ Synthetic Division	§6.1 Systems of Equations in Two	§6.2 Systems of Equations in Three
§4.4 Zeros of Polynomial Functions	Variables	Variables
Due: §4.2, §4.3 (Long Division)	Due: §4.3 (Synthetic Division), §4.4, Worksheet 6	Due: §6.1

Schedule. The following course schedule is preliminary.

Monday		WEDNESDAY		Friday
20th 2	27	22nd	28	24th
§7.2 The Circle and the Ellipse		§7.1 The Parabola		University holiday
Due: §6.2		Due: §7.2, Worksheet 7		
27th 2	29	29th	30	31st 31
§8.1 Sequences and Series		§8.2 Arithmetic Sequences and		§5.1 Inverse Functions
Due: §7.1		Series		Due: §8.2
		Due: §8.1, Worksheet 8		
Nov 3rd 3	32	5th	33	7th 34
§5.2 Exponential Functions and		Exam 3 §4.1–8.2		§5.3 Logarithmic Functions and
Graphs		Due: Sample Exam 3		Graphs
Due: §5.1				Due: §5.2
10th 3	35	12th	36	14th 37
§5.4 Properties of Logarithmic		§5.4A Properties of Logarithmic		§5.5 Solving Exponential Equations
Functions		Functions		and Logarithmic Equations
Due: §5.3		Due: §5.4, Worksheet 9		Due: §5.4A
17th 3	38	19th	39	21st 40
§5.5A Solving Exponential		§5.6 Applications and Models:		Chapter 5 Review
Equations and Logarithmic		Growth and Decay; Compound		Due: §5.6
Equations		Interest		
Due: §5.5		Due: §5.5A, Worksheet 10		
24th 4	11	26th		28th
Exam 4 $\S5.1-5.6$		University holiday		University holiday
Due: Sample Exam 4				
Dec 1st 4	12	3rd	43	5th 44
Final Review		Final Review		Final Review
		Due: Worksheet 11		Due: Worksheet 12

Friday			
Dec 12th			
Comprehensive Final Exam			
	12noon–1:50pm, ANSI 123		
	Due: Sample Final Exam		

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