MAT 117: College Algebra

Fall C 2019 Course Syllabus

8/22/2019 to 12/6/2019

Class #: 77555 and 83851	**Instructor: Dr. Welcome**
Time: 12:00 pm – 1:15 pm	**Email: nwelcom@asu.edu**
Days: Tuesday and Thursday	**Office Phone: 480-727-1238**
Office: SANTAN 330C	**Office Hours: Tuesday and Thursday 7:55 am – 8:55 am & By Appointment**

Course Description: Welcome to College Algebra! The purpose of this course is to develop skills in Linear Functions, Quadratic Functions, General Polynomial Functions, Rational Functions, Exponential Functions, Logarithmic Functions and Systems of Linear Equations. We will emphasize problem-solving techniques, specifically by means of discussing concepts in each of these topics.

Course Objectives:

- Create a solid foundation of basic operations on numbers and applications in the real world.
- Students will be able to apply algebraic reasoning to solve a range of problems.
- Students will develop skills required for success in future studies in calculus.

Textbook: You are not required to purchase a hard copy of the textbook for this course since the ebook will be available online inside the course. Reading materials will also be provided online in each lesson as pdf chapters. If you would like to purchase a hard copy, this is the text: College Algebra; 2th Edition by Julie Miller & Donna Gerken, ISBN 978-0-07-783634-4.

Calculator: A graphing calculator (such as the TI-83/84) is **required**. **Cellular phone calculators and calculators that do symbolic algebra, such as the Casio FX2, Casio 9970Gs, TI-89, or TI-92, TI-nspire CAS also *cannot* be used during exams**. **The ALEKS Calculator will not be available in the class.**

The Fall 2019 Texas Instruments graphing calculator workshop is scheduled as follows:

Thurs. Sept. 5, 2019 at 6 to 8 PM in LSE 104
Friday. Sept. 6, 2019 at 4 to 6 PM in LSA 191

Communicating with Your Instructor: When emailing, include the class you are in (e.g. MAT 117 and your class #). You **MUST** email from your ASU provided email, or may **NOT** get a response. Please check the syllabus, announcements, and existing posts in Canvas regularly.

A few important Terms associated with the ALEKS Platform:

Topic is a specific problem type and is the smallest piece of content in the course. There are **370** topics in the course.

Objective is a group of similar topics. The course is divided into 18 Objectives, each with a different number of topics as shown in the Objectives Mastery Levels table in this syllabus.

Initial Knowledge Check is a placement test with about 30 questions that determines how much of the course you already know. You get to skip those topics that you show mastery on; however, you will be re-assessed later in other knowledge checks.

Progress Knowledge Check is an adaptive test that tests your mastery on previously learned topics as well as some new topics. If you do not show mastery on some topics already mastered, you will have to revisit/relearn those topics. If you show mastery on new topics, you will gain mastery on those topics and get to skip those topics.

Weekly Topic Goal is the number of topics that you are expected to complete by 11:59 pm on Sunday of that week. The number of topics for this goal will change from week to week. Please see the Time and Topic Goals Schedule for On Track Pacing table in this syllabus. The weekly topic goal **contributes** to your course grade, and you should try to meet this goal each week. You can always do more than the required number of topics in any week. Extra topics done in any week, however, will not count in any other week for a grade but will be helpful in completing the course earlier than the end of the session or in catching up if you fall behind.

Weekly Time Goal tracks the number of hours that you are investing in ALEKS each week. The weekly time goal **does not count** towards your course grade. A few students complete the course in as little as 30 hours of work, but most students take much longer, with a few students taking more than 300 hours of work.

Flow of Adaptive Course Work in ALEKS:

- To access ALEKS, **always** go to our Canvas course and then click on the "Go To ALEKS" link from inside our Canvas course. If you try to access ALEKS without going through our Canvas course, any work you do **may not be recorded** for our class.
- After a brief tutorial on how to navigate in the ALEKS system, you will then be required to do the Initial Knowledge Check. This will allow you to earn a level of mastery in one or more objectives in the course. The higher you score on the initial knowledge check, the higher your mastery level will be in each objective. However, you will be tested on the same content later in progress knowledge checks.
- Next you click on "CONTINUE MY PATH" to start learning the topics that you did not show mastery of during the initial knowledge check. If you had a 70% mastery on Objective 1, for example, you will continue following your path until you attain the required mastery on Objective 1. Then you move on to Objective 2 and repeat the same process, starting from the mastery level gained from the initial knowledge check. This process continues for all the remaining objectives.
- After either 10 hours working in the system OR 20 topics and 5 hours working in the system, an automatic progress knowledge check will usually be triggered for you to show mastery on the more recent topics you completed. It is important that you regard **all** knowledge checks **seriously** and do your best. If not, you may lose mastery on some topics and have to revisit/restudy them. You may usually choose to postpone these knowledge checks for 24 hours and choose to "Work on Something Else," such as reviewing for the knowledge check or for a test or learning more topics, but then you will usually need to complete the knowledge check before working in other areas of ALEKS.
- You *learn* an ALEKS topic through the ALEKS process of "Continue My Path." This occurs in a window with a blue background. You *master* an ALEKS topic when you answer a question about that topic correctly on a knowledge check. Knowledge checks and tests occur in windows with a green background.

Attendance Policy: Attendance is **required** for this class. Please be aware that missing classes will **LOWER** your final grade in class.

Problem Solving 10%: You will complete each weekly problem set in small groups based on the most recent content you have completed in the course. There are no make-up problem sets for missing class. Missed problem sets will be recorded as 0's in the grade book. The lowest problem set grade will be dropped.

Class Participation/Attendance 5%:

- Students who do not begin the *Initial Knowledge Check* by the end of first week **will be dropped**.

- Students who **have not logged in and worked on the course for 3** days each week during the session **may not receive the participation points for that week. This does not apply to students that complete the weekly topic goals on time for that week.**
- **Please be sure to check your ASU email, Canvas, and course site regularly for updates and information.**
- Please email questions or come to office hours if you would like further explanations or examples.

ALEKS Pie Completion 15%: Your learning is personalized by the adaptive algorithms in the ALEKS software platform. Completing mastery in all objectives will account for 15% of the course grade. It is important that you take notes and solve the problems on paper as you work through the course. This will be helpful in retaining the content you learn. Once you have 370 topics in the ALEKS Pie, you will get the full 15% of your course grade.

Topic Goals 20%: You will have a pre-specified number of topics to complete each week. These are in place for you to track the number of topics you are completing each week to reach the weekly topic goal by **11:59 PM Arizona time on Sunday night** of each week. You may complete more than the required number of topics in any week. Each weekly topic goal contributes to your course grade. **Topic goals are time sensitive and must be completed in the week that they are due** until you finish learning and mastering all the topics. **Topic goals may not be completed in future weeks nor completed in earlier weeks**, except that they are no longer due after you learn and master all 370 topics.

Tests 50%: Test 1, Test 2, Test 3 and the Final Exam will involve a mix of mechanical skills and conceptual reasoning. **Test 1 is not proctored.** That means you can take it from anywhere. **All exams** will be timed and allow only **ONE attempt.** Test 2, Test 3, and the Final Exam are proctored in class. While testing, you are only allowed a few loose sheets of extra paper, pen/pencil (or whiteboard and dry erase marker), and graphing calculator. (Refer to the part of this syllabus about which kinds of calculators may not be used during tests. Headphones, notes, and notebooks (including notebooks with blank paper) are not allowed, you may not refer to other websites during each test, and you may not ask for help. In particular, you need to put away all internet capable devices (watches, phones, tablets, computers other than the one you are testing on, etc.) where you cannot see or access them during the test. Also, please close extra browser tabs (except ALEKS and possibly Canvas) during tests; turn off devices such as TV, radio, and music players; and remove any headphones or ear buds you are using, Violating test rules or accessing an internet capable device (other than the one you are testing on) during the test may result in a score of 0 for the test. Cheating may result in a failing grade in the class.

Tests	Objectives	Time (Minutes)	Number of Questions	Percent of Course Grade
Test 1	1 to 4	60	12	6%
Test 2	5 to 9	50	12	12%
Test 3	10 to 15	50	12	12%
Final Exam	5 to 18	110	16	20%

Cohort/Groups: Problem sets completed alone will not receive credit. Students must work with one other student (two others on certain occasions authorized by the instructor).

Course Expectations:

- You are expected to complete **1 or 2 objectives per week** as outlined on the course schedule.
- Over the course of the semester, you are expected to remain ahead of schedule based on the suggested syllabus calendar.
- You are expected to spend about **9 or more hours per week** to access the course content in the computer lab or on your personal computer elsewhere.

Tutoring Resources / Computer Lab:

- The schedule for tutoring can be found at https://tutoring.asu.edu/student-services/tutoring. Come in for help before it is too late, and several days before a test day to strengthen your preparation. In order to be admitted to an in-person Tutor Center, each student must present their valid ASU "Sun Card". (See https://cfo.asu.edu/cardservices for details about how to obtain a Sun Card.)
- Online Tutoring is available. Students can view the schedule of when tutors are working for their specific class either via the website above or through Tutor Search.
- If you own a laptop computer, you are encouraged to use it for completing the exams.
- The study helps within ALEKS itself include the electronic textbook, videos about each topic, and a way to message me, your instructor, about each question.
- There are course videos corresponding to each objective. These are accessed along the left side within Canvas from the links “Objectives 1 to 4 (Test 1)”, “Objectives 5 to 9 (Test 2)”, etc. Test study guides are also available in Canvas.
- ASU also provides counseling, tutoring in math (and many other subjects), supplemental instruction, and other types of support to students. The websites are https://eoss.asu.edu/counseling for counseling services, https://tutoring.asu.edu/ for tutoring including online tutoring, and https://eoss.asu.edu/cs for career resources.

How to Succeed in this Course:

- Make time for math every day, at least five or six days each week. Log into our Canvas course site, check the course announcements, and work on math each of these days. Also check your ASU email on these days for messages from me.
- Staying ahead is a critical component of student success in this course. Stay ahead of schedule and make sure you are aware of all the resources available to you that are listed in the syllabus and on the course site so you don't fall behind.

Grading Information: You must complete Test 1, Test 2, Test 3, and the Final Exam, along with doing the required work in each category shown below. You may complete the Final Exam after you learn all 370 topics in the course. That is, you may take the Final Exam before the scheduled date of the Final Exam if you finish the class early. If you have completed at least 95% or 352 of the 370 topics in the course by the last day of the session, you may complete the Final Exam on the day it is scheduled during the Final Exam week. Of course, you will then get 95% instead of the full 100% for the ALEKS Pie Completion. You must also keep up with the Topic Goals, as they do not transfer from week to week. **Passing the class requires a weighted average of at least 70% in the "Total" grade entry in the Canvas grade book.** Of course, the "Total" grade in Canvas is not your true grade until grades from all categories are entered. **Passing also requires you to complete all four tests and to complete at least 95% (352) of the 370 topics in the course.**

Course Grade Weightings	Percentage		Grade	Grading Scale
ALEKS Pie Topic Progress	15%		A+	[97, 100]
Topic Goals	20%		A	[90, 97)
Participation/Attendance	5%		A-	[89.5, 90)
Problem Sets	10%		B+	[87, 89.5)
Test 1 (Objectives 1 to 4)	6%		B	[80, 87)
Test 2 (Objectives 5 to 9)	12%		B-	[79.5, 80)
Test 3 (Objectives 10 to 15)	12%		C+	[77, 79.5)
Final Exam (Objectives 5 to 18)	20%		C	[70, 77)
Total	**100%**		D	[60,70)
			E	[0,60)
			Z	Incomplete: second semester stretch eligible

- **MAT 117 students taking the class for the first time will earn a grade of Z if they are not passing by the end of the semester. They then enroll in a MAT 117 S zero-credit course. This course does not cost tuition, and at the end of that semester the Z is replaced with the grade the student earns in MAT 117 S.**
- **MAT 117 S students will earn a D or E if not passing by the end of the semester. They would then have to register for a fresh start in a 3-credit MAT 117 class.**

Time and Topic Goals Schedule for On Track Pacing

C Session	Time/Topic Goals		Number	Topics	Total
Week	Start	End	of Days	Per Week	Topics
1	8/19	8/25	4	20	20
2	8/26	9/1	7	30	50
3	9/2	9/8	6	25	75
4	9/9	9/15	7	30	105
5	9/16	9/22	7	30	135
6	9/23	9/29	7	30	165
7	9/30	10/6	7	30	195
8	10/7	10/13	5	25	220
9	10/14	10/20	5	20	240
10	10/21	10/27	7	30	270
11	10/28	11/3	7	30	300
12	11/4	11/10	7	20	320
13	11/11	11/17	6	20	340
14	11/18	11/24	7	20	360
15	11/25	12/1	5	10	370
16	12/2	12/6	5		

NOTE: The first Topic Goal is due Sun. Aug. 25, 2019 and is 20 topics. First you complete the Initial Knowledge Check and do your very best on it (because that will help you advance farther in the course and have fewer topics to learn). You will want to complete the Initial Knowledge Check by Thurs. Aug. 22, if

possible. Then you complete Topic Goal 1, which means you learn 20 more topics, beyond those that you already learned on the Initial Knowledge Check. No matter how many topics you learned on your Initial Knowledge Check, you still are responsible to learn 20 more topics by Sun. Aug. 25.

You continue learning all the topics required for your topic goal each week. Note from the "Time and Topic Goals Schedule for On Track Pacing" that this usually means learning 20 to 30 more topics *each week*. Along the way, ALEKS will give you knowledge checks. (If needed, you may usually postpone a knowledge check for 24 hours by choosing to "Work on Something Else.") Knowledge checks help you know which topics you have mastered. If you don't correctly complete a problem on a knowledge check, then you will lose that topic and need to relearn it. Knowledge checks don't count toward your course grade, but they help you understand what you do remember and what you don't remember. Thus, reviewing topics and completing knowledge checks are good ways to study and prepare for tests. You will also want to go to our Canvas course and look at "Test Topics with Study Guides" to learn which topics to study for each test.

If you consistently lose topics on knowledge checks, however, you will find that, although you may meet your topic goal each week by relearning topics, you are not progressing in the class. Thus, each week you should achieve two things shown on the Time and Topic Goals Schedule for On Track Pacing: (1) You should learn or relearn enough topics to achieve your topic goal each week. This is shown in the yellow "Topics Per Week" column of the table. (2) You should make sure that by the end of the week you have learned enough topics to keep up in the class. The number of topics needed to keep up in the class is shown in the red "Total Topics" column of the table. The amount of topics you have learned is shown in your ALEKS pie chart. To view your ALEKS pie chart, click the "home" icon in the upper left corner in ALEKS. This icon is made of three parallel horizontal line segments. Then click on ALEKS pie. Clicking the center of the pie changes between the number of topics you have learned and the (rounded) percentage of topics you have learned in the course.

Eventually you learn all 370 topics. You should then complete the Course Completion Knowledge Check and then regain any lost topics so that you have 370 topics again. Until you achieve this, however, you are responsible for achieving your topic goal each week, regardless of how close or far you are from having all 370 topics completed in the course.

Please refer to the ASU Academic Calendar for important dates**.**

Drop/Add Deadline	Wednesday, 8/28/2019
Course Withdrawal Deadline	Wednesday, 11/6/2019
Complete Semester Withdrawal	Friday, 12/6/2019

Note: In order to withdraw after Nov. 6, you would need to withdraw from ALL of your ASU courses, not just this course. That is why the later withdrawal is referred to as a complete withdrawal from ASU.

Important Course Dates

Week	From	To	Objectives	Comments
1	8/19	8/25	Course Overview, Syllabus, Schedule, Introductions, **Initial Knowledge Check**	
2	8/26	9/1		*Drop/Add – 8/28
3	9/2	9/8		**Labor Day: 9/2**
4	9/9	9/15	Objectives 1 to 4 due Fri: 9/13	
5	9/16	9/22		**Test 1 by Fri. 9/20**
6	9/23	9/29		
7	9/30	10/6		
8	10/7	10/13		
9	10/14	10/20	Objectives 5 to 9 due Wed. 10/16	**Fall Break: 10/14 to 10/15** **Test 2 by Fri. 10/18**
10	10/21	10/27		
11	10/28	11/3		
12	11/4	11/10		*Course Withdrawal 11/6
13	11/11	11/17	Objectives 10 to 15 due Wed. 11/13	**Veterans Day: 11/11** **Test 3 by Fri. 11/15**
14	11/18	11/24		
15	11/25	12/1		
16	12/2	12/6	Objectives 16 to 18 due Fri.12/6	*Complete Course Withdrawal 12/6
17	12/9	12/13	**Final Exams – ASU Final Exam Schedule**	

Objectives Mastery Levels

Obj. #	Objective Names	Goal Topics	Cumulative Topics	Minimum Mastery Level Requirement
1	Rules of Exponents	19	19	90%
2	Introductory Topics	44	63	95%
3	Prerequisite Topics	32	95	95%
4	Getting Up To Speed	26	121	95%
5	Foundations	28	149	95%
6	Properties of Functions	21	170	95%
7	Linear Functions	28	198	95%
8	Working with Linear Functions	11	209	90%
9	Solving System of Equations	13	222	90%
10	Graphs of Functions	24	246	95%
11	Intermediate Functions	10	256	90%
12	Composite Functions	16	272	90%
13	Quadratic Equations	28	300	95%
14	Polynomial Functions & Zeros	16	316	90%
15	Rational Functions	7	323	90%
16	Exponential Functions	13	336	90%
17	Logarithmic Functions	14	350	90%
18	Applications of Exponential and Log Functions	20	370	95%

Technical Support Contact Information:

For technical assistance 24 hours a day, 7 days a week, please contact the University Technology.
Phone: 480-965-6500 or 1-855-278-5080 Email: helpdesk@asu.edu Web: http://help.asu.edu/
For information on systems outages, see the ASU systems status calendar: please visit http://syshealth.asu.edu/ .

Academic Integrity:

- Academic honesty is expected of all students in all examinations, papers, and laboratory work, academic transactions and records. The possible sanctions include, but are not limited to, appropriate grade penalties,

course failure (indicated on the transcript as a grade of E), course failure due to academic dishonesty (indicated on the transcript as a grade of XE), loss of registration privileges, disqualification and dismissal. For more information, see http://provost.asu.edu/academicintegrity

- Any parts of exams, assignments, reports, or solutions to these, from current or previous sessions, posted to any website not affiliated with ASU may result in academic integrity disciplinary actions against the students posting them and the students using them.
- No individual extra credit assignments will be offered.

Conduct:

Students are required to adhere to the behavior standards listed in the

- https://eoss.asu.edu/dos/srr/c (Student Code of Conduct).
- ACD 125: Computer, Internet, and Electronic Communications.
- https://provost.asu.edu/academic-integrity ASU Student Academic Integrity Policy.

Students are entitled to receive instruction free from interference by other members of the class. If a student is disruptive, an instructor may ask the student to stop the disruptive behavior and warn the student that such disruptive behavior can result in withdrawal from the course. An instructor may withdraw a student from a course when the student's behavior disrupts the educational process under USI 201-10.

Appropriate classroom behavior is defined by the instructor. This includes the number and length of individual messages online. Students must maintain a cordial atmosphere and use tact in expressing differences of opinion. Also, profanity, vulgarity, and unkindness will not be tolerated. Please be kind in your messages to everyone in our class. Inappropriate discussion board messages may be deleted if an instructor feels it is necessary. Students will be notified privately that their posting was inappropriate. Student access to the course Send Email or discussion forum features may be limited or removed if an instructor feels that students are sending inappropriate electronic messages to other students in the course.

Accommodating students with disabilities:

Students who feel they will need disability accommodations in this class but have not registered with the Disability Resource Center (DRC) should contact DRC immediately. DRC staff can also be reached at: (480) 965-1234 (V) or (480) 965-9000 (TTY). For additional information, visit: https://eoss.asu.edu/drc .

Policy against threatening behavior:

(Student Services Manual SSM 104–02 "Handling Disruptive, Threatening or Violent Individuals on Campus"): All incidents and allegations of violent or threatening conduct by an ASU student (whether on or off campus) must be reported to the ASU Police Department (ASU PD) and the Office of the Dean of Students. If either office determines that the behavior poses or has posed a serious threat to personal safety or to the welfare of the campus, the student will not be permitted to return to campus or reside in any ASU residence hall until an appropriate threat assessment has been completed and, if necessary, conditions for return are imposed. ASU PD, the Office of the Dean of Students, and other appropriate offices will coordinate the assessment in light of the relevant circumstances.

Absences related to religious observances/practices or university sanctioned events and activities:

If you will be absent from class due to a religious observance or practice or a university sanctioned event or activity, it is your responsibility to inform the instructor a week in advance. Your instructor will work with you on alternative and reasonable arrangements for any time missed.

Title IX:

Title IX is a federal law that provides that no person be excluded on the basis of sex from participation in, be denied benefits of, or be subjected to discrimination under any education program or activity. Both Title IX and university policy make clear that sexual violence and harassment based on sex is prohibited. An individual who believes they have been subjected to sexual violence or harassed on the basis of sex can seek support, including counseling and academic support, from the university. If you or someone you know has been harassed on the basis of sex or sexually assaulted, you can find information and resources at https://sexualviolenceprevention.asu.edu/faqs.

As a mandated reporter, I am obligated to report any information I become aware of regarding alleged acts of sexual discrimination, including sexual violence and dating violence. ASU Counseling Services, https://eoss.asu.edu/counseling, is available if you wish discuss any concerns confidentially and privately.

The School of Mathematical and Statistical Sciences encourages faculty to address and refer to students by their preferred name and gender pronoun. If your preferred name is different than what appears on the class roster, or you would like to be addressed using a specific pronoun, please let your instructor know.

Note: If I need to make a change to this syllabus, I will notify students via an email to your ASU email or via an announcement posting in Canvas for our course. I do not expect to make any major changes.

End of Syllabus