Syllabus

MAT 117: College Algebra (On Demand)

Launch March 7, 2023

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Course Overview

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, complemented with diverse resources to help ensure you master concepts in each of these areas. Another learning objective for this course is to demonstrate the ability to apply specific problem-solving steps to solve algebraic word problems.

MAT 117 is an adaptive course run in ALEKS (Assessment and Learning in Knowledge Spaces). ALEKS uses adaptive questioning in the form of an Initial Knowledge Check (IKC) to determine exactly what you know and don't know upon entry into the course. ALEKS then instructs you on the topics you are most ready to learn. As you work through the course, ALEKS periodically reassesses you to ensure that topics learned are also retained. This is done through Progress Knowledge Checks and Post Module Knowledge Checks. By the end of the session, you will have learned many college algebra topics across four units! Unit A covers exponents, simplifying, factoring, and solving algebraic expressions. Unit B provides an introduction to functions, linear functions, and systems of linear equations. Unit C addresses graphs of functions, composite functions, inverse functions, quadratic functions, polynomials, and rational functions. Finally, Unit D introduces exponential and logarithmic functions, together with applications.

Context: This is an online course. You will independently work through learning the content in ALEKS. It is best if you set a regular time to study and learn the content and make full use of the resources that are available in the course.

Credits: 3

Prerequisites: To be successful in this course, we recommend English language fluency and computer literacy. In addition, we recommend knowledge of basic algebra. If you are concerned that you may lack knowledge in some areas of basic algebra, we invite you to join the course anyway. The ALEKS learning and practice software will help you identify preliminary topics for study to achieve readiness for more advanced learning.

Instructor: Dr. Carla van de Sande

Contact Info for Instructor and Math Team: See the table below.

Type of Question	Where to Ask			
MATH QUESTIONS	1) Use the Inscribe Community discussion tab in Canvas (on the left), or			
	2) Use "Ask a Question" in the "Watch & Learn"			
	features of ALEKS by clicking on this icon:			
NON-MATH COURSE-RELATED ISSUES (such as grades, extension requests,)	Use the Inscribe Community discussion tab in Canvas (on the left) to post a private message to just the moderators (TA's and instructor)			
	Make sure to post your message privately to just the moderators by selecting "Moderators" in the eyeball Moderators menu on the top right.)			
	ASK A QUESTION SHARE SOMETHING I How to use the Moderator option Image: Comparison of the moderator option Image: Comparison of the moderator option Image: Comparison of the moderator option Include more details Image: Comparison of the moderator option Pick the topic Image: Comparison of the moderator option Pick the topic Image: Comparison of the moderator option			

Course Learning Objectives and Units

Learning Objectives

At the completion of this course, students will be able to:

- 1. Use basic algebraic operations on numbers, expressions, and equations.
- 2. Solve real-world application problems.
- 3. Apply algebraic reasoning to solve a range of problems.

4. Begin future studies in precalculus and calculus.

Description of the Course Units

The course is divided into four units (A, B, C, and D). Each of these units contains many small topics. You will be mastering all of the topics in each of the units. The topics, along with an example problem of each, are listed in the Unit Student Guides in Canvas.

Unit	Unit Names & Descriptions	Number of Topics
A	Exponents, Simplifying, Factoring, Solving: Simplify, factor, and solve algebraic expressions, including those that contain exponents, and use them to model real-world situations	85
В	Solving, Introduction to Functions, Linear Functions, Systems of Equations: Identify, evaluate, construct and graph functions, solve systems of equations, and use functions to model real-world situations	101
С	Graphs of Functions; Composite and Inverse Functions; Quadratic, Polynomial and Rational Functions: Construct, graph, and transform functions, including composite and inverse functions, and use them to model real-world situations	80
D	Exponential and Logarithmic Functions and Applications: Evaluate, graph, and manipulate exponential and logarithmic expressions and functions, and use them to model real-world situations	47

General Requirements

Textbook

You are not required to purchase a textbook for this course. If you prefer to purchase a hard copy, this is the text: College Algebra; 2nd Edition by Julie Miller & Donna Gerken, ISBN 978-0-07-783634-4.

ALEKS

The assignments covering all of the topics and the quizzes (except the Syllabus Quiz) and exams are in an adaptive learning program, called ALEKS.

- 1. To access ALEKS, **always** go through our Canvas course. You **cannot** access our ALEKS course directly from the aleks.com website.
- 2. The **first time you access ALEKS** for our course, you should select that you do not have an ALEKS account (even if you believe you do have one). You must start with a fresh account for this course.

Calculator

Approved Calculators

- All scientific calculators are acceptable
- All 4-function calculators (including those with square root and percentage keys) are allowed (but not recommended)
- You may use <u>desmos</u> (an online scientific calculator) and you will have access to desmos on exams
- Graphing calculators are acceptable as long as they do not have any of the features listed under Unacceptable Calculators (below).
 - Here is a list of <u>approved graphing calculators</u> that contains the names of many models that are acceptable.
 - **Note:** If a calculator is approved for the SAT/ACT, that does NOT make it approved for this course. Please refer to the standards in this syllabus.

Unacceptable Calculators

Students are **not allowed** to use *any* of the following calculators, unless specifically approved by Student Accessibility and Inclusive Learning Services (SAILS) as an accommodation:

• Any graphing calculator that has CAS (Computer Algebra System) functionality

- Calculator apps or programs on laptops or other computers, tablets, mobile phones, smartphones, smartwatches, or wearable technology
- Models that can access the Internet or have wireless, Bluetooth, cellular, audio/video recording and playing, camera, or any other smartphone-type features
- Models that have a computer-style (QWERTY) keyboard, pen input, or stylus
- Models that use electrical outlets, make noise, or have a paper tape

In addition, the use of hardware peripherals such as a stylus with an approved calculator is not permitted. Some models with touchscreen capability are not permitted (e.g., Casio ClassPad). Check the list of acceptable graphing calculators above for models that are permitted.

Computer

This is a fully online course; therefore, it requires a computer with Internet access and the following technologies:

- Web browser (Chrome* Mozilla Firefox or Safari
 - *Note: For taking exams, you will need to use Chrome as your browser and install a separate free extension from HonorLock. Honorlock is an AI and live proctoring service that uses a computer's webcam and microphone to record the exam space to promote academic integrity. This service is free for ASU students.
- Adobe Acrobat Reader (free)
- Webcam, microphone, headset/earbuds, and speaker
- Reliable broadband Internet connection (DSL or cable) to stream videos
 - Due to limitations in VPN Internet connectivity at non-United States locations, students registering for this course may experience timed outages that are beyond the control of Arizona State University. We do not recommend that you take this course for credit if you must use a VPN to connect. Success in this course requires a reasonably modern browser on a laptop or desktop computer, as well as a robust and stable Internet connection.
- Microsoft Word or Google Docs

Note: While you will be able to access course content with a smartphone, tablet, etc., you must take the Honorlock Practice Quiz and the proctored exams on a laptop or desktop computer.

Course Flow

Diagram of Course Flow

Here is a diagram showing how this course is structured. Your activities take place in Canvas and in an adaptive learning program called ALEKS, so you will need to navigate back and forth between these two. In Canvas you will find important information and resources (such as student guides and our formula sheet) to help you prepare for quizzes and exams. In ALEKS you will be practicing your math and taking quizzes and exams. When you see an activity called a "Check" (like a "Progress Knowledge Check" or a "Post Module Knowledge Check") in ALEKS, think of it as a low stakes way to see ("check") whether you have mastered a topic after you've learned it. Learn more about terms and icons used in ALEKS on the page: <u>ALEKS In-depth</u>.



Summary of Course Flow

- Complete all of the activities in the Welcome Module in Canvas, including the required syllabus quiz in Canvas to unlock the Unit and Exam Modules in Canvas.
- 2. Let ALEKS figure out what you know and what you need to learn by taking the required Initial Knowledge Check in ALEKS.
- 3. Complete the activities in the Unit A Module in Canvas:
 - a. Read through the Unit A: Student Guide page in Canvas.
 - i. In ALEKS, complete 100% learning of Unit A topics, take the Post Module Knowledge Check (PMKC) and relearn any lost topics to unlock the Unit A Quiz.
 - ii. In ALEKS, take the Unit A Quiz (10% of course grade). We recommend you take it multiple times since you only have to redo the problems you missed each time and this is an opportunity to refresh skills that you need to.
- 4. Complete the activities in the Honorlock Practice Quiz Module in Canvas:
 - a. Read through the Honorlock Practice Quiz: Student Guide page in Canvas.
 - b. Successfully complete the required Honorlock Practice Quiz so that you know ahead of time the process for taking proctored exams and so that you have time to adjust your technology if needed. *Note: While taking the Honorlock Practice Quiz, make sure that you can access the page of formulas and the calculators.*
- 5. Repeat Step 3 for Unit B, including taking the Unit B Quiz (10% of course grade). We recommend you take the Unit B Quiz multiple times since you only have to redo the problems you missed each time and this is an opportunity to refresh skills that you need to.
- 6. Complete the activities in the Midterm Exam Module in Canvas:
 - a. Read through the Midterm Exam: Student Guide page in Canvas
 - i. Use the Midterm Exam Study Guide and take several versions of the optional (but highly recommended) Midterm Exam Practice Quiz.
 - b. In ALEKS, take the proctored Midterm Exam (20% of course grade).
- Repeat Step 3 for Unit C, including taking the Unit C Quiz (10% of course grade). We recommend you take the Unit C Quiz multiple times since you only have to redo the problems you missed each time and this is an opportunity to refresh skills that you need to.

- Repeat Step 3 for Unit D, including taking the Unit D Quiz (10% of course grade). We recommend you take the Unit B Quiz multiple times since you only have to redo the problems you missed each time and this is an opportunity to refresh skills that you need to.
- 9. Complete the activities in the Final Exam Module in Canvas:
 - a. Read through the Final Exam: Student Guide page in Canvas
 - i. Use the Final Exam Study Guide and take several versions of the optional (but highly recommended) Final Exam Practice Quiz.
 - b. In ALEKS, take the proctored Final Exam (40% of course grade).

Due Dates

Learners have 12 months from the date of enrollment to complete this course. There are no interim due dates for assignments, quizzes or exams. (If you see due dates in ALEKS that are later than 12 months from your date of enrollment, please disregard them.) We recommend that you make a schedule for yourself to complete the course successfully. There are resources on the page <u>Get organized for success in this course!</u> to help you get and stay organized. (If you see due dates in ALEKS that are later than 12 months from your date of enrollment, please disregard to help you get and stay organized. (If you see due dates in ALEKS that are later than 12 months from your date of enrollment, please disregard them.)

Quizzes & Exams

Description of Quizzes & Exams

Туре	Name	Covers These Units	Time Allowed in Minutes	Number of Questions	Percent of Course Grade	Take More than Once?	Proctored?
Quiz	Syllabus Quiz	Syllabus	120	13	0%	Yes (need 100% to unlock the course modules)	No
Quiz	Honorlock Practice Quiz	Proctoring Technology	120	1	0%	Yes (needs to be completed to unlock the Midterm Exam and the Final Exam)	Simulated
Quiz	Unit A Quiz	A	120	21	10%	Yes (need 100% or more to start Unit B)	No

Туре	Name	Covers These Units	Time Allowed in Minutes	Number of Questions	Percent of Course Grade	Take More than Once?	Proctored?
Quiz	Unit B Quiz	В	120	21	10%	Yes (need 100% or more to start Unit C)	No
Quiz	Unit C Quiz	С	120	21	10%	Yes (need 100% or more to start Unit D)	No
Quiz	Unit D Quiz	D	120	21	10%	Yes	No
Quiz	Midterm Practice Quiz	А, В	120	20 (same as Midterm Exam)	0%	Yes (can generate multiple versions)	No
Quiz	Final Practice Quiz	A, B, C, and D	120	25 (same as Final Exam)	0%	Yes (can generate multiple versions)	No

Туре	Name	Covers These Units	Time Allowed in Minutes	Number of Questions	Percent of Course Grade	Take More than Once?	Proctored?
Exam	Midterm Exam	A and B	120	20	20%	Yes (can can take twice and keep higher score)	Yes
Exam	Final Exam	A, B, C, and D	120	25	40%	Yes (can can take twice and keep higher score)	Yes

Summary of Quizzes & Exams

The Syllabus Quiz is found in Canvas. It consists of 13 questions and covers information found in the syllabus. You have 120 minutes to take this quiz. The Syllabus Quiz does not count toward your course grade, but you must score 100% on this quiz to unlock the unit and exam modules in the course. You have unlimited opportunities to repeat this quiz, and it is not proctored.

The **Honorlock Practice Quiz** is found in Honorlock but must be accessed through the Honorlock tab in Canvas. The Honorlock Practice Quiz does not count toward your course grade, but you **must** take the Honorlock Practice Quiz to learn how to properly access the proctoring service used for the Midterm Exam and the Final Exam. **The Midterm Exam and the Final Exam will not be unlocked until you successfully complete the Honorlock Practice Quiz.** You will have unlimited opportunities to repeat this quiz and navigate Honorlock in a simulated proctoring situation before you experience the proctored Midterm Exam and Final Exam. Each time you open the Honorlock Practice Quiz, it will remain open for 120 minutes. Detailed step-by-step instructions on using Honorlock can be found in this document: <u>Instructions for using</u> <u>Honorlock to proctor an exam in ALEKS</u>

There are four (4) **Unit Quizzes** in the course, one for each unit in the course. Each unit quiz is found in ALEKS and contains 21 questions from its unit. You have 120 minutes to take each of the quizzes. In each Unit Quiz, you have unlimited opportunities to demonstrate your mastery of the topics and earn your desired grade. The Unit Quizzes are not proctored, and each Unit Quiz is worth 10% of your course grade.

The **Midterm Practice Quiz** is found in ALEKS and contains a total of 20 questions from Units A and B to help you prepare for the Midterm Exam. The timer on the Midterm Practice Quiz is set to 120 minutes. You have unlimited opportunities to repeat the Midterm Practice Quiz, and these do not count towards your course grade. The Midterm Practice Quiz is not proctored.

The **Final Practice Quiz** is found in ALEKS and contains 25 questions from Units A, B, C, and D to help you prepare for the Final Exam. The timer on the Final Practice Quiz is set to 120 minutes. You have unlimited opportunities to repeat the Final Practice Quiz, and these do not count toward your course grade. The Final Practice Quiz is not proctored.

The **Midterm Exam** is found in ALEKS but must be accessed through the Honorlock tab in Canvas. The Midterm Exam contains a total of 20 questions from Units A and B. You have 120 minutes to take the Midterm Exam. The Midterm Exam is proctored. You may take the Midterm Exam twice and keep the higher of the two scores. The Midterm Exam is worth 20% of your course grade.

The **Final Exam** is found in ALEKS but must be accessed through the Honorlock tab in Canvas. The Final Exam contains a total of 25 questions from Units A, B, C, and D. You have 120 minutes to take the Final Exam. The Final Exam is proctored. You may take the Final Exam twice and keep the higher of the two scores. The Final Exam is worth 40% of your course grade.

Exam Rules

You may use pencils and pens, blank paper and blank whiteboards, and an approved graphing calculator during the proctored exams. Other materials or devices that can be used for calculation are not permitted to be in the room or accessible by the user.

During proctored exams, you may not have notes or formula sheets other than those that are linked in the exam. You may not consult with another person, additional

material, textbooks, a cell phone, or websites except those that are white-listed for calculator use. You may not conceal any prohibited resources.

Honorlock uses a blend of Artificial Intelligence and human review to proctor the exams. Violations of exam rules are reported to our course administrative team and then reviewed. You will be notified by a course administrative team member if there are questions about your activity during the exam. Learners who are found to be violating <u>academic integrity policies</u> on a proctored exam will receive a 0 grade on the exam.

Course Grading Plan

Course Component	Percent of Course Grade
* Syllabus Quiz	0%
Unit A Quiz	10%
Unit B Quiz	10%
** Honorlock Practice Quiz	0%
Midterm Practice Quiz	0%
Midterm Exam	20%
Unit C Quiz	10%
Unit D Quiz	10%
Final Practice Quiz	0%
Final Exam	40%

Weighting of course components

* You must score 100% on the Syllabus Quiz to unlock the Unit and Exam course modules.

** You must successfully complete the Honorlock Practice Quiz to unlock the Midterm Exam and the Final Exam.

Once quizzes and exams have been submitted in ALEKS, the Exam reports will become available in ALEKS on the "Assignments" page where you can click on your grade to access the report. You will then be able to look at the problems you missed and

learn from your mistakes by reviewing those topics. Also, after a short delay, your score will become available in the Canvas Gradebook.

Course Grading Scale

Percentages needed to earn each grade

Grade	Grading Scale
A	90% or higher
В	80% to 89.99%
С	70% to 79.99%
No grade assigned	69.99% or lower

Math help



<u> </u>

In ALEKS, there are teaching videos specially made for each topic. Use these if you want explanations beyond the written ALEKS explanations as you work on the problems within each topic.

Ask a question

• Post a question in the "Ask a Question" area within the "Watch and Learn" feature in ALEKS,

- Post a question using the **Inscribe Community tab** in Canvas,
- Attend an Office Hours Zoom Session.
- Click on the link to see available times.
- Schedule a **One-on-One** Zoom session with a Math Support Team member through <u>https://linktr.ee/mathsupport</u> (*Limited availability*)

Review, Study, and Practice, practice, practice!

Use the Exam Study Guides in Canvas (found in the Exam Modules) and the Exam Practice Quizzes in ALEKS to prepare for the course exams.

Work through all of the problems in the study guide and then check your answers with the answer key. Then, generate an exam practice quiz to simulate the timing of the real exam. Keep repeating this process until you are comfortable with solving the problems you are seeing on the exam practice quizzes in the amount of time you are given. *Questions?* Get help from our Math Support Team!

Non-math course-related help

Technical Support

Information on how to get technical help in the various parts of the course is below.

Honorlock Proctoring System

Honorlock support is available at all times, 24/7/365. If you encounter any issues, you may contact them through live chat on the <u>Honorlock support page</u> or within the exam itself.

ALEKS

For a technical support problem within the ALEKS program, please contact <u>ALEKS</u> <u>Technical Support</u>.

Canvas

For any technical issues within Canvas, please contact ulcourses@asu.edu.

Outages

For information on systems outages, visit the ASU systems status calendar: <u>http://syshealth.asu.edu/.</u>

Other technical support

Please contact Universal Learner Courses technical support at 855-278-5080 (24/7) or ulcourses@asu.edu to assist you further. Please provide as much information as possible about your issue, including:

- Course Number and Platform (MAT-117-OD in Canvas)
- Description of the problem
- Screenshots of error messages
- Urgency due to upcoming deadlines

Accessibility

For questions about accessibility and accommodations, please visit ASU's <u>Student</u> <u>Accessibility and Inclusive Learning Services</u> and submit a new student application. Please ensure that you have your accommodations in place before you take your exams. If you have any questions regarding the process, please review the <u>ULC</u> <u>Accessibility</u> information page.

Taking This Course for ASU Credit

Finishing up the course

This is an On Demand course. Once you have worked through the course material, submitted your assignments, and have a grade for each assignment you can indicate that you have finished the course using the button at the bottom of the Modules Area.

It is very important you wait for all grades to be assigned to your coursework before you indicate that you have finished the course. Any assignments that were pending grades will no longer be available to the instructor for grading and will auto-calculate as a 0 in the reporting system.

Course credit will be available within 2 business days of your course conclusion date.

For most On Demand offerings, you have 12 months to complete your course after you enroll. Please check your dashboard to review the remaining time on your enrollment.

ASU Credit

Students wishing to pursue ASU credit for this course are required to do the following things:

- Pass the course with a C or better (70% course grade or higher)
- Learners who are found to be violating <u>academic integrity</u> policies on a proctored exam will receive a 0 grade on the exam. If your final grade in the course is a C or above, then you will still be eligible to get credit. If your final grade is not at least a C, then you would need to retake the course the next time it is offered to earn credit. Learners may appeal their proctoring decision for up to 75 days after the exam. Your course instructor will make a final determination.

Important: Provided you have met all requirements for this course, you can purchase credit from ASU for up to one year after you become credit eligible. Your date of eligibility may differ from the course end date or the date certificates are issued. Please visit your course progress page, specifically the "Requirements for Course Credit" section, to see the status of your credit eligibility. Please review your "Course Guide" section for additional details.

Note: Potential limitations of internet connectivity by some countries are beyond the control of Arizona State University and may limit the ability of a Credit-Eligible student residing in those countries to complete all the assessments, and therefore potentially impede the eligibility to earn college credit. Students impacted by such limitations should contact ulcourses@asu.edu.

ASU Academic Policies & Acknowledgements

Disruptive, Threatening, or Violent Behavior

The university takes threatening behavior very seriously and these situations will be handled in accordance with the *Student Services Manual*.

Disruptive behavior in any form (see <u>ASU Student Code of Conduct</u>) will NOT be tolerated and students are expected to be familiar with all relevant university policies. A disruptive student may be withdrawn from a course with a mark of "W" or "E" when the student's behavior disrupts the educational process. Disruptive classroom behavior for this purpose is defined by the facilitator. For more information, please visit <u>ASU Student</u> <u>Rights and Responsibilities</u>

Prohibition Against Discrimination, Harassment, & Retaliation

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 <u>sexualviolenceprevention.asu.edu/faqs</u>.

Additionally, NO forms of discrimination, harassment, and/or retaliation will be permitted in any space, virtual or physical.

Religious Observance Policy

We honor and respect religious and cultural observance. We recognize that some challenges may occur if there's a religious and cultural holiday date that falls when there is a course obligation, like a course due date or scheduling a collaborative learning activity with another classmate or your instructor. To this end, we've set up the course policy and schedule to be available for your planning and flexible in case of any religious and cultural observance calendar conflict. If you have any questions about course obligations, as described in this policy, that may conflict with religious and cultural observance, please reach out to ulcourse@asu.edu.

Land Acknowledgement

Arizona State University acknowledges the 22 Tribal Nations that have inhabited Arizona land for centuries. Arizona State University's four campuses in the Phoenix metropolitan area, are located in the Salt River Valley on ancestral homelands of many Indigenous peoples, including the Akimel O'odham (Pima) and Pee Posh (Maricopa), whose care and keeping of these lands allows us to be here today and provides a guide for our relationship with these lands in the future. ASU acknowledges the sovereignty of these tribal nations and seeks to foster an environment of success and possibility for American Indian learners, and to work alongside Indigenous people in practices and knowledges that support Native experiences and prosperity.

Counseling Services

<u>360 Life Services</u> is a comprehensive wellness program designed for online learners that offer free, 24/7 counseling and crisis intervention in person or by phone.

For more information on ASU policies, please select the Learner Resources link in the course navigation bar to the left in Canvas.

Syllabus Disclaimer

The syllabus is a statement of intent and serves as an implicit agreement between the instructor and the student. Every effort will be made to avoid changing the course schedule but the possibility exists that unforeseen events will make syllabus changes necessary. Remember to check your ASU email and the course site often.