Math 112 Section _____ (MWF)
College Algebra Concepts and Applications
Course Policies and Syllabus – Spring 2023

Classroom Location and Meeting Times

Instructor:
Office:
Email:
Phone:
Office Hours:

Required Materials:
ALEKS access through D2L
Graphing calculator (see below for specific details)
Gradescope account at gradescope.com

Recommended Materials:
Math 112 Class Notes (available in the UA Bookstore and/or on D2L)

Websites: http://d2l.arizona.edu https://math112.math.arizona.edu http://www.aleks.com

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As we enter the Spring semester, the health and well-being of everyone in this class is the highest priority. Accordingly, we are all required to follow the university guidelines on COVID-19 mitigation. Please visit https://covid19.arizona.edu for the latest guidance.

Classroom Attendance

- If you feel sick, or if you need to isolate or quarantine based on University protocols, stay home. Except for seeking medical care, avoid contact with others and do not travel.
- If you test positive for COVID-19 and you are participating in on-campus activities, you must report your results to Campus Health. To learn more about the process for reporting a positive test, visit the Case Notification Protocol.
- Notify your instructor(s) if you will be missing a course meeting or an assignment deadline.
- Non-attendance for any reason does **not** guarantee an automatic extension of due dates or rescheduling of examinations or assessments. Instead, dropped assignments have been built into the policies.
- Please communicate and coordinate any request directly with your instructor.
- If you must miss the equivalent of more than one week of class, you are required to contact the Dean of Students Office DOS-deanofstudents@email.arizona.edu to share documentation about the challenges you are facing.
- Voluntary, free, and convenient COVID-19 testing is available for students on Main Campus.
- COVID-19 vaccine is available for all students at Campus Health.
- Visit the UArizona COVID-19 page for regular updates.

Catalog Course Description
Topics include properties of functions and graphs, linear and quadratic equations, polynomial functions, exponential and logarithmic functions with applications. A graphing calculator is required for this course. We recommend the TI-83 or TI-84 models. Calculators that perform symbolic manipulations, such as the TI-89, NSpire CAS, CFX-9970G, or HP50g, cannot be used. Except as per University policy on repeating a course, credit will not be given for this course if the student has credit in a higher level math course. Such students may be dropped from the course. Examinations are proctored.

Course Format and Teaching Methods
Math 112 is a 3 credit hour course. Students will meet in person three days per week except when there are no class meetings due to University holidays. Students are expected to be punctual, have regular in-class attendance, and fully participate in the course. Because enrollment in MATH 112 is limited, students who miss the first two days of class without communicating with their instructor will be administratively dropped from the course.

Course Prerequisites
PPL 40+ or MCLG 55+ or SAT I MSS 550+ or ACT MATH 23+. Test scores expire after 1 year. Some students may need to take Math 100 first.

Course Objectives
- To help students improve basic algebra skills by way of an integrated review of these skills as they are needed in the course.
- To promote problem-solving and critical thinking skills through the application of algebraic concepts to common situations.
- To enhance learning and understanding of algebraic concepts through the integrated use of graphing calculators.
- To provide a sufficient algebra background for Math 113, Math 116, Math 163/263, and Math 120R

Expected Learning Outcomes
Upon completion of this course, students should be able to:
1. Identify and use proper notation for functions, and describe key characteristics of functions and their graphs.
2. Recognize and analyze linear, piecewise linear, quadratic, polynomial, rational, exponential, and logarithmic functions and their graphs.
3. Solve a variety of application problems involving these types of functions using algebraic and graphical tools.
4. Be more confident in doing mathematics. Persevere in the face of difficulties and view mistakes as welcome opportunities to learn.

Makeup Policy for Students Who Register Late
Students who register for the class after the first class meeting may not be able to make up missed assignments. Exceptions may be considered by the student's instructor.

Communication with Students
Announcements and important course information may be sent out via official University email or through D2L. It is the student's responsibility to check for messages and announcements regularly.

Calculators
A graphing calculator (such as a TI-83, 84, or 86) is required for this course. Calculators that perform symbolic manipulations (such as the TI-89 or TI-92 or certain TI-Nspire CAS) cannot be used. For in-class exams, quizzes, and the final exam, the only program allowed in your calculator is the QUADRATIC FORMULA program. All other programs must be cleared prior to all exams.

The Desmos Test App will not be sufficient for MATH 112 and is not considered an acceptable graphing calculator for Spring 2023. Cell phones will need to be turned off and put away for all exams. Students will need access to and be familiar with a standalone graphing calculator for in-class activities and exams. You are encouraged to purchase your own (new or used) or to rent one from the UA Libraries.
See https://lib.arizona.edu/borrow/tech/calculators

For a list of acceptable calculators to use in Math 112 and other courses, see
https://www.math.arizona.edu/support/kb/academics/index.php?pg=kb.page&id=206

ALEKS
ALEKS is an online learning platform that will personalize studying and learning for each individual student. Several graded components for Math 112 are found in ALEKS. ALEKS course materials are being delivered digitally via D2L through the Inclusive Access program. Please access ALEKS through the class D2L site on the first day of classes to make sure there are no issues in the delivery, and so that any problems or questions you have can be addressed quickly.

Inclusive Access means that the cost of your ALEKS access will be automatically charged to your Bursar account. If you do not wish to pay for the materials through your Bursar account but prefer to pay independently with a credit card, you must take action (even if you have not accessed the materials) to opt-out. The deadline to opt-out for the 15-week course beginning January 11, 2023 is January 24, 2023. If you do not opt-out, the cost of the digital course materials will appear on your Bursar account.

Please refer to the Inclusive Access FAQs at https://shop.arizona.edu/textbooks/Inclusive.asp for additional information.

Students must **register for ALEKS** by enrolling through http://d2l.arizona.edu. When registering for ALEKS, students will need to enter a valid email address and password. If you have previously used an ALEKS product, you should use your previous login credentials. If you have not used an ALEKS product before, you are **STRONGLY** encouraged to use your University of Arizona email address. By registering for ALEKS through D2L, your account will be automatically linked to your enrolled section of MATH 112 and you will not need a code.

Homework and Quizzes (150 course points)
There are 3 components: ALEKS Objectives, written homework assignments, and quizzes. Late homework is generally not accepted. Grading disputes regarding homework must be addressed within one week after the homework has been returned.

ALEKS Objectives (65 course points)

There will be several online homework objectives this semester, posted in ALEKS. These assignments are due by 11:59 PM on the due dates. To account for situations when a student may not be able to fully complete ALEKS objectives, including illness, injury, and other emergencies, three of the lowest ALEKS objective scores will be dropped, and the remaining assignments will be averaged and scaled to 65 points in the course.

Written Homework Assignments (70 course points)

There will be 14 written work assignments, posted by your instructor on Gradescope.com. Written work assignments generally consist of a few questions from each section and will relate to the material covered in class and/or the Class Notes. Your instructor and/or TA will grade your submission online and you will receive your grade and comments via Gradescope. Each question will be provided on a pre-formatted sheet that will have space for the student to show their detailed solutions. Students **must** print the assignment and handwrite all work on the printed assignment. Once your homework is completed, you will need to submit the assignment on Gradescope.com by **the start of class on the due date**. The work that is submitted should be the **FINAL** draft, created after the first drafts of the solutions were attempted. Since there are only a few questions assigned per section, each student is expected to **submit work that is of high quality**. Each written work assignment will be worth up to 40 points. While students are permitted to work together on their written work, the work submitted must be one's own. Copying work from another student will not be tolerated. Students who copy another person's work are violating the university's Code of Academic Integrity and may be subject to penalties described in the Code.

Students are expected to complete the following procedures to receive full points on their written work assignments.

- Show and clearly explain an algebraic method used to solve the problem. Proper mathematical notation should be used and the student's work should be neat and well-organized in the final draft that is submitted. Points will be awarded for correctness and completeness. Simply giving an answer is not acceptable and will receive little or no credit.
- Handwrite your detailed solutions on the printed homework assignment. Clearly indicate the final answer.
- Save your pages in the correct order as a PDF (use a scanner or an app such as Adobe Scan).
- No late homework is accepted. Homework sent via email will NOT be accepted.

In addition to the written homework assignments, your instructor may include additional assignments such as in-class quizzes and/or other activities like worksheets, test review problems, etc.

To account for situations when written homework cannot be fully completed, including illness, injury, and other emergencies, at least two of the lowest written homework scores will be dropped and the remaining scores will be averaged and scaled to 70 points in the course.

ALEKS Quizzes (15 course points)

There will be six regular individual ALEKS quizzes. Students will have a 24-hour period to access, and then a limited time window to submit an ALEKS quiz on their own without assistance. These are due by 11:59 PM on

the due dates. To account for any situations when an ALEKS quiz cannot be completed, including illness, injury, and other emergencies, the one lowest ALEKS quiz score will be dropped, and the remaining quiz scores will be averaged and scaled to 15 points in the course.

Midterm Exams (100 course points each)
There are three midterm exams. The dates, times, and content for the midterms are given below.

- Exam 1:
  - **Thursday February 16, 2023,** from **7:30 PM – 8:30 PM**, location to be announced
  - Topics: Functions, Graphs of Functions, Linear Functions, Piecewise Linear Functions, Transformations of Functions

- Exam 2:
  - **Thursday, March 23, 2023,** from **7:30 PM – 8:30 PM**, location to be announced
  - Topics: Combining Functions, Inverse Functions, Quadratic Functions, Polynomial Functions

- Exam 3:
  - **Thursday, April 27, 2023,** from **7:30 PM – 8:30 PM**, location to be announced
  - Topics: Rational Functions, Exponential Functions, Logarithmic Functions, Properties of Logarithms, Exponential and Logarithmic Equations and Applications

Please put all of these dates in your calendar immediately! The locations of Midterm Exams 1, 2 and 3 will be posted on the College Algebra website. Students are not allowed to share graphing calculators during exams.

Issues related to the grade received on an exam need to be discussed within 1 week of the exam being graded. Study guides for the midterms will be posted as PDF documents on the College Algebra website.

Final Exam (150 course points)
The comprehensive Final Exam will be given on **Monday, May 8, 2023**, from **8:00 AM – 10:00 AM**. Please put this date in your calendar immediately. The location of the final exam will be posted on the College Algebra website. A study guide for the final exam will be posted as a PDF document on the College Algebra website.

The University final exam schedule and rules relating to final examinations may be found at:
https://registrar.arizona.edu/final-exams-spring-2023

Missed Exams
Students who are unable to attend Midterm 1, 2, or 3 for a **LEGITIMATE** reason will be asked to complete an online request form by a specific date, usually 1 week before the exam. Information about this form will be sent to every student's UA email address approximately 2 weeks before each exam. In addition to completing the online form, students should also notify their instructor. Failure to submit the request for a make-up midterm may result in the request being denied or the student receiving a penalty on the exam.

Only legitimate reasons will be considered for make-up exams without a penalty. Legitimate reasons include UA class conflicts, Dean's excuses, religious holidays recognized by the University, and verifiable emergencies, including, but not limited to, illness, work, childcare, and travel (flight/bus/shuttle) issues. University-related events without a Dean's excuse will generally not be considered as an exam conflict (e.g., club meeting or club dinner). While not an exhaustive list, the following excuses are not considered legitimate exam conflicts: family events, vacations, or other time conflicts. **Students should make arrangements to be present for each exam.**

If a verifiable emergency arises which prevents you from taking an exam at the regularly scheduled time, you must notify your instructor or the Mathematics Department as soon as possible. Students who fail to notify their instructor or Mathematics Department within 24 hours after the test has been given may receive a grade of zero on the exam. Make-up exams will be administered only at the discretion of the Mathematics Department and/or the instructor. If a student is allowed to make up a missed exam, they must take it at a mutually arranged time. No further opportunities will be extended. Failure to contact the Mathematics Department and/or instructor as stated above or inability to produce sufficient evidence of a real emergency may result in a grade of zero on the exam. In general,

make-up exams must be completed within two weeks of the original exam date, or the last day of class, May 3, whichever comes first.

Early Progress Feedback
Shortly after Midterm 1 is graded, this course will provide feedback to students through Trellis Progress Reports. The feedback will be sent to your official UArizona email address. This is an opportunity to assess your current performance and make adjustments as needed to earn the grade that you want this semester. Make a plan to finish strong!

Grades			**You are Guaranteed a Grade of:**	
ALEKS Objectives	65 points	(10.8%)	A	if you earn at least 540 points (90%)
Written HW Assignments	70 points	(11.7%)	B	if you earn at least 480 points (80%)
ALEKS Quizzes	15 points	(2.5%)	C	if you earn at least 420 points (70%)
Midterm 1	100 points	(16.7%)	D	if you earn at least 360 points (60%)
Midterm 2	100 points	(16.7%)		
Midterm 3	100 points	(16.7%)		
Final Exam	150 points	(25.0%)		
Total possible points	600 points	(100 %)		

Please note that neither exam scores nor final grades will be curved. No extra credit or bonus points are offered in this course.

A grade of Incomplete will be given only at the instructor's discretion, according to University Policy as described at https://catalog.arizona.edu/policy/grades-and-grading-system#incomplete.

Withdrawal
A student may drop the course with a deletion from transcript through January 24, 2023 using UAccess. A student may withdraw with a grade of "W" through March 28, 2023 using UAccess. Students should consult their academic advisor before withdrawal from any course.

Using Math 112 as a Prerequisite for Other Courses
The Undergraduate Committee of the Department of Mathematics has adopted a policy that a grade of C or better in Math 112 is a necessary prerequisite for Math 113, 116, or 120R. Students who receive a D in Math 112 will receive credit for the course towards graduation requirements, and will be able to use the course for their general education math requirement or as a prerequisite for Math 163, 263, or 302A, but will not be automatically qualified to register for Math 113, 116, or Math 120R. Students may always exercise the option of taking the math placement tests to achieve placement into Math 113 or 116.

Classroom Behavior Policy
To foster a positive learning environment, students and instructors have a shared responsibility. We want a safe, welcoming, and inclusive environment where all of us feel comfortable with each other and where we can challenge ourselves to succeed. To that end, our focus is on the tasks at hand and not on extraneous activities (e.g., texting, chatting, reading a newspaper, making phone calls, web surfing, etc.). Students are asked to refrain from disruptive conversations with people sitting around them during lecture. Students observed engaging in disruptive activity will be asked to cease this behavior. Those who continue to disrupt the class will be asked to leave and may be reported to the Dean of Students.

The use of personal electronics such as laptops, iPads, and other such mobile devices can be distracting to the other students and the instructor. Their use can degrade the learning environment. Therefore, students are not permitted to use these devices during the class period unless deemed necessary by the instructor.

Additional Resources for Students

UA Academic policies and procedures are available at http://catalog.arizona.edu/policies

Campus Health

http://www.health.arizona.edu/

Campus Health provides quality medical and mental health care services through virtual and in-person care.
Phone: 520-621-9202

Counseling and Psych Services (CAPS)

https://health.arizona.edu/counseling-psych-services

CAPS provides mental health care, including short-term counseling services.
Phone: 520-621-3334

The Dean of Students Office's Student Assistance Program

https://deanofstudents.arizona.edu/support/student-assistance

Student Assistance helps students manage crises, life traumas, and other barriers that impede success. The staff addresses the needs of students who experience issues related to social adjustment, academic challenges, psychological health, physical health, victimization, and relationship issues, through a variety of interventions, referrals, and follow up services.
Email: DOS-deanofstudents@email.arizona.edu
Phone: 520-621-7057

Survivor Advocacy Program

https://survivoradvocacy.arizona.edu/

The Survivor Advocacy Program provides confidential support and advocacy services to student survivors of sexual and gender-based violence. The Program can also advise students about relevant non-UA resources available within the local community for support.
Email: survivoradvocacy@email.arizona.edu
Phone: 520-621-5767

Academic Advising

If you have questions about your academic progress this semester, please reach out to your academic advisor (https://advising.arizona.edu/advisors/major). Contact the Advising Resource Center (https://advising.arizona.edu/) for all general advising questions and referral assistance. Call 520-626-8667 or email to advising@.arizona.edu

Life Challenges

If you are experiencing unexpected barriers to your success in your courses, please note the Dean of Students Office is a central support resource for all students and may be helpful. The Dean of Students Office can be reached at (520) 621-2057 or DOS-deanofstudents@email.arizona.edu.

Physical and Mental-Health Challenges

If you are facing physical or mental health challenges this semester, please note that Campus Health provides quality medical and mental health care. For medical appointments, call (520) 621-9202. For After Hours care, call (520) 570-7898. For the Counseling & Psych Services (CAPS) 24/7 hotline, call (520) 621-3334.

University-wide Policies Link

Links to the following UA policies are provided here: https://academicaffairs.arizona.edu/syllabus-policies

- **Absence and Class Participation Policies**
- **Threatening Behavior Policy**
- **Accessibility and Accommodations Policy**
- **Code of Academic Integrity**
- **Nondiscrimination and Anti-Harassment Policy**
- **Subject to Change Statement**

Tentative Weekly Schedule

Week	Dates	Topics Covered	Assignments Due*
1	Jan 8 – 14	Introductions, Functions	ALEKS: Register ALEKS: Initial Knowledge Check
2	Jan 15 – 21	Functions, Calculator Activity	ALEKS: Refresh Part 1 Written HW: Functions
3	Jan 22 – 28	Graphs, Linear Functions	ALEKS: Refresh Part 2, Functions, Graphs Written HW: Graphs
4	Jan 29 – Feb 4	Linear, Piecewise Functions	ALEKS: Linear Part 1, Linear Part 2 ALEKS: Quiz 1 Written HW: Linear Functions
5	Feb 5 - 11	Transformations	ALEKS: Piecewise, Transformations Part 1 Written HW: Piecewise
6	Feb 12 – 18	Unit 1 Review, Combining Functions	Written HW: Transformations ALEKS: Transformations Part 2 ALEKS: Quiz 2 **Exam 1 Thursday, Feb 16**
7	Feb 19 – 25	Inverse Functions	ALEKS: Mechanics Review 1 Part 1 and Part 2, Combining Functions Written HW: Combining Functions
8	Feb 26 – Mar 4	Quadratic Functions	ALEKS: Inverse Functions, Factoring Quadratics ALEKS: Quiz 3 Written HW: Inverse Functions

9	Mar 5 -11	Spring Break	
10	Mar 12 -18	Polynomial Functions	ALEKS: Solving Quadratics, Quadratic Applications Written HW: Quadratic Functions
11	Mar 19 – 25	Unit 2 Review/ Rational Functions	ALEKS: Polynomial Functions ALEKS: Quiz 4 Written HW: Polynomial Functions **Exam 2 Thursday, Mar 23**
12	Mar 26 - Apr 1	Rational and Exponential Functions	ALEKS: Mechanics Review 2, Rational Functions Written HW: Rational Functions
13	Apr 2 – 8	Exponential and Logarithmic Functions	ALEKS: Exponential Functions Written HW: Exponential Functions ALEKS: Quiz 5
14	Apr 9 – 15	Properties of Logarithms/ Exp and Log Applications	ALEKS: Exp Apps Written HW: Logarithmic Functions
15	Apr 16 - 22	Exp and Log Applications	ALEKS: Logarithmic Functions & Properties Written HW: Properties of Logs ALEKS: Quiz 6
16	Apr 23 – 29	Exp and Log Apps/ Unit 3 Review	ALEKS: Log Applications Written HW: Exp/Log Equations & Applications **Exam 3 Thursday, Apr 27**
17	Apr 30 – May 6	Review for Final Exam	ALEKS: Mechanics Review 3, Final Mechanics Review
	May 7-8		**Final Exam Monday May 8**

*Note: Specific due dates for assignments will be posted in class or at an online location by the instructor.