## Math 112 Section 062

## College Algebra Concepts and Applications

**Course Policy – New Start – 2018**

Instructor: Taryn Laird

Email: tarynl@email.arizona.edu

Office Hour: Tuesdays 2-3 pm (in Bear Down Gym)

By Appointment

Tutoring Hours: Mon-Thurs 1-5pm (in Bear Down Gym)

Sun 3-7pm (in Recreation Center)

Required Materials: ALEKS access (this will be charged to your Bursar’s account automatically)

Graphing calculator (see below for specific details)

Course Website: http://d2l.arizona.edu



### 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, 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 Structure**

Math 112 is a 3 credit hour course. Students will meet in person five days per week except when there are no class meetings due to University holidays. To complement the instruction received in class, students may watch videos in ALEKS on topics that are unclear.

**Course Prerequisites**

Appropriate Math Placement Level

### 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 promote and utilize the “Rule of Four”: All concepts are explored algebraically, numerically, graphically and in context with applications.

### To provide a sufficient algebra background for Math 113, Math 116, Math 120R, and Math 163/263.

**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.

**Accessibility and Accommodations**

It is the University’s goal that learning experiences be as accessible as possible. If you anticipate or experience physical or academic barriers based on disability or pregnancy, please meet with your instructor to discuss ways to ensure your full participation in the course. If you determine that formal, disability-related accommodations are necessary, it is very important that you register with Disability Resources (621-3268; drc.arizona.edu) and notify your instructor of your eligibility for reasonable accommodations by Thursday, June 14. You will then be able to work with your instructor to plan how best to coordinate your accommodations. Please be aware that the accessible table and chairs in the classroom should remain available for students who find that standard classroom seating is not usable.

#### Attendance/Administrative Drops

Daily attendance is expected from every student. The New Start attendance policy states that no student should miss more than two classes. In the case of excessive absences, the student may be asked to meet with the instructor regarding possible administrative drop from the program.

* All holidays or special events observed by organized religions will be honored for those students who show affiliation with that particular religion.
* Absences pre-approved by the UA Dean of Students (or Dean’s designee) will be honored.

It is the student’s responsibility to notify the instructor in advance of an absence related to religious observation or an activity for which a Dean’s excuse has been granted, and to arrange for how any missed work will be handled.

**Academic Integrity**

Students are responsible to inform themselves of University policies regarding the Code of Academic Integrity. Students found to be in violation of the Code are subject to penalties ranging from a loss of credit for work involved to a grade of E in the course, and risk possible suspension or probation. The Code of Academic Integrity will be enforced in all areas of the course, including, but not limited to, homework, quizzes, and tests. For more information about the Code of Academic Integrity policies and procedures, including information about your rights and responsibilities as a student, see the following website:

http://deanofstudents.arizona.edu/academic-integrity/students/academic-integrity.

**Student Code of Conduct**

Students at The University of Arizona are expected to conform to the standards of conduct established in the Student Code of Conduct. Prohibited conduct includes:

1. All forms of student academic dishonesty, including cheating, fabrication, facilitating academic dishonesty, and plagiarism.
2. Interfering with University or University-sponsored activities, including but not limited to classroom related activities, studying, teaching, research, intellectual or creative endeavor, administration, service or the provision of communication, computing or emergency services.
3. Endangering, threatening, or causing physical harm to any member of the University community or to oneself or causing reasonable apprehension of such harm.
4. Engaging in harassment or unlawful discriminatory activities on the basis of age, ethnicity, gender, handicapping condition, national origin, race, religion, sexual orientation, or veteran status, or violating University rules governing harassment or discrimination.

Students found to be in violation of the Student Code of Conduct are subject to disciplinary action. For more information about the Student Code of Conduct, including a complete list of prohibited conduct, see the following website:

http://deanofstudents.arizona.edu/accountability/students/student-accountability.

**Other Relevant University Policies Relating to Conduct**

Please take note of the following University policies:

* Policy on Threatening Behavior by Students: http://policy.web.arizona.edu/education-and-student-affairs/threatening-behavior-students
* Nondiscrimination and Anti-Harassment Policy: http://policy.arizona.edu/human-resources/nondiscrimination-and-anti-harassment-policy

**Expected Classroom Behavior**

Students should turn off all electronic devices during class unless the device is deemed necessary for the class by the instructor. This includes, but is not limited to cell phones, tablets, MP3 players, and laptops. If you have a disability-related accommodation that involves the use of a computer during class, please discuss this with your instructor in advance.

**Calculators**

A graphing calculator (TI-83, 84, or 86) is required for this course, and you are expected to bring it to class every day. 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.

**ALEKS**

The course textbook and several graded components for Math 112 are found in ALEKS. ALEKS can be accessed through the University of Arizona’s D2L website (http://d2l.arizona.edu). Unless students opt-out individually, then they are registered for ALEKS automatically (i.e., through “inclusive access”).

**Homework and Quizzes**

There are two types of homework in this course: ALEKS Assignments and Written Work. Quizzes may also be given occasionally. Late homework is generally not accepted. 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. Grading disputes regarding homework must be addressed within one week after the homework has been returned.

1. ALEKS Assignments (75 course points)

There will be regular online homework assignments this semester, posted in ALEKS. These assignments are scheduled to be completed by 11:59 PM on the due dates. The lowest two ALEKS assignments will be dropped, and the remaining assignments will be averaged and scaled to 75 points in the course.

1. Written Work Assignments (40 course points)

There will be daily written work assignments, posted by your instructor in D2L. Written work assignments generally consist of a few questions and will relate to the material covered in class. 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 by 7:30 AM 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 should submit work that is of high quality.

Students are expected to adhere to the following guidelines in order to receive full points on their written work assignments:

* Show and clearly explain the algebraic method(s) used to solve the problem. Simply giving an answer is not acceptable and will receive little or no credit. Points will be awarded for correctness and completeness.
* Answer all questions as stated in the question, with sentences for explanations as requested.
* Proper mathematical notation should be used.
* Clearly indicate the final answer(s).
* The student’s work should be neat and well-organized in the final draft that is submitted.

Each written work assignment will be worth 100 points. To account for issues that may arise, the lowest two written work scores will be dropped and the remaining points will be scaled to 40 points in the course. 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.

3. Quizzes (35 course points)

Quizzes will be given in class on a regular basis. Each quiz will be worth 100 points. To account for issues that may arise, the lowest two quiz scores will be dropped and the remaining points will be scaled to 35 points in the course.

**Midterm Exams**

##### There are three midterm exams, 60 minutes each, taken during class time. The dates and content for the midterms are given below.

##### Midterm 1: Monday, June 25, 2018

##### Topics: Functions, Graphs of functions, Linear functions, Piecewise-linear functions, Transformations of functions

##### Midterm 2: Friday, July 6, 2018

##### Topics: Combining functions, Inverse functions, Quadratic functions, Polynomial functions

* + **Midterm 3: Wednesday, July 18, 2018**

Topics: Rational functions, Exponential functions, Logarithmic functions, Properties of logarithms, Exponential and log equations and applications

##### Please put all of these dates in your calendar immediately.

##### Issues related to the grade received on the exam need to be discussed within one week of the exam being graded. Study guides for the midterms will be posted as PDF documents on D2L.

**Final Exam**

The comprehensive Final Exam will be given on **Friday, July 20, 2018**, taken in class. Please put this date in your calendar immediately. A study guide for the final exam will be posted as a PDF document on D2L.

Please note the following:

* University rules relating to final examinations may be found at:  
  http://www.registrar.arizona.edu/schedule101/exams/examrules.htm
* The University final exam schedule may be found at:  
  http://www.registrar.arizona.edu/schedules/finals.htm

**Missed Exams**

##### Students who are unable to attend the midterms or final exam for a LEGITIMATE reason will be asked to provide verifiable documentation related to their exam conflict. Failure to supply documentation may result in the request being denied or the student receiving a penalty on the exam. Students are expected to be present for the final exam, which takes place on Friday, July 20, 2018.

Only legitimate reasons will be considered for make-up exams. Legitimate reasons include UA class conflicts, Dean’s excuses, religious holidays recognized by the University, and verifiable emergencies. University related events without a Dean’s excuse will generally not be considered as an exam conflict (e.g., club meeting or club dinner).

##### 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, (s)he 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 will result in a grade of zero on the exam.

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| **Grades** |  | **You are Guaranteed a Grade of:** | | | | | | |
| Homework (ALEKS) | 75 points |  | A | if you earn at least 540 points (90%) | | | |
| Homework (Written Work) | 40 points |  | B | if you earn at least 480 points (80%) | | | |
| Quizzes | 35 points |  | C | if you earn at least 420 points (70%) | | | |
| Midterm 1 | 100 points |  | D | if you earn at least 360 points (60%) | | | |
| Midterm 2 | 100 points |  |  |  | | | |
| Midterm 3 | 100 points |  |  |  | | | |
| Final Exam | 150 points |  |  |  | | | |
| *Total possible points* | 600 points |  | | |  |  |  | |
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**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 http://www.registrar.arizona.edu/gradepolicy/incomplete.htm.

**Withdrawal**

Students may withdraw with a grade of "W" through Thursday, July 19, 2018. Students should speak to their instructor before the deadline if they intend to withdraw from the course.

**Tentative Weekly Schedule**

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| --- | --- | --- | --- | --- | --- |
| **Week of** | **Monday** | **Tuesday** | **Wednesday** | **Thursday** | **Friday** |
| June 11 | Intro, Functions | Functions,  Graphs of Functions | Graphs of Functions,  Linear Functions | Linear Functions | Piecewise Linear Functions |
| June 18 | Piecewise Linear Functions | Transformations | *No classes - Orientation* | Transformations | Review |
| June 25 | **Exam 1,**  Combining Functions | Combining Functions | Inverse Functions | Inverse Functions | Quadratic Functions |
| July 2 | Quadratic Functions | Polynomial Functions | *No classes - July 4* | Review | **Exam 2,**  Rational Functions |
| July 9 | Exponential Functions | Log Functions | *Acad. Conf.* | *Acad. Conf.* | Properties of Logarithms |
| July 16 | Exponential & Log Equations and Applications | Review | **Exam 3** | Review | **Final Exam** |

**Changes to the Course Policies**

The information contained in the course policies, other than the grade and absence policies, may be subject to change with reasonable advance notice, as deemed appropriate by the instructor.