

MAT 171

Precalculus: Stem

Instructor:	Office:
E-mail:	Office Hours:

Course Description: Students will be able to solve and graph various types of algebraic functions (including polynomial, rational, exponential and logarithmic) as well as apply this knowledge to more complex problems. Students will also be able to use the six basic trigonometric functions and their inverses to solve problems, both applied and theoretical.

Prerequisite: Mat 117 with a C or better; or, completion of the Mathematics Placement Test with a score of 50% or higher; credit is allowed only for Mat 170 or Mat 171

Textbook: You must buy an access code to MyMathLab through Pearson. Included in this is an online version of your textbook. If you'd like, you may also purchase a physical copy of the text, but this is not required. The book (optional) we are using is **Precalculus Essentials, 5th Edition, Blitzer**.

Pearson Website: <https://www.pearsonmylabandmastering.com/northamerica/>

Graphing Calculator: A graphing calculator is required for this course. If you already have a graphing calculator, you may use it. Examples of highly recommended models are the TI-*n*spire & TI 83/84 or Casio 9850GB Plus. Calculators that do symbolic algebra, such as the Casio FX2, Casio 9970Gs, TI-89, TI-92, or TI-*n*spire CAS **cannot** be used in class or during an exam.

Workshops for Graphing Calculator:

The workshops for Texas Instruments TI 83/84 graphing calculators will be in

Grades

Grade Allocations		Min. % for Grades	
Homework	20%	A+, A, A-	97, 93%, 90%
Recitation	15%	B+, B, B-	87, 83, 80%
Exam 1	20%	C+, C	77, 70%
Exam 2	20%	D	60%
Final Exam	25%	E	< 60%

Important dates:

Course Withdrawal Deadline	
Complete Withdrawal Deadline	

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.

Calendar of Activities

Week	Sections	Notes/Comments
	Introduction and Create MML account 1.2: Basics of Functions and their Graphs 1.3: More on Functions and their Graphs	Recitation 0 – Review Problems
	1.6 Transformations of Functions 1.7: Combinations of Functions, Composition	Recitation 1 – 1.2, 1.3
	1.8: Inverse Functions 2.1: Complex Numbers 2.2: Quadratic Functions	Recitation 2 – 1.6, 1.7
	2.3: Polynomial Functions and their Graphs 2.4: Dividing Polynomials 2.5: Zeros of Polynomial Functions	Recitation 3 – 1.8, 2.1, 2.2
	2.6: Rational Functions and their Graphs	Review for Exam 1 Recitation 4 – 2.3, 2.4, 2.5
	Exam 1 covers 1.2-1.8, 2.1-2.6 3.1: Exponential Functions	Exam 1 in class
	3.2: Logarithmic Functions 3.3: Properties of Logarithms	Recitation 5 – 3.1
	3.4: Exponential and Logarithmic Equations 3.5: Exponential Growth and Decay	Recitation 6 – 3.2, 3.3
	4.1: Angles and Radian Measure 4.2: Trigonometric Functions, Unit Circle	Recitation 7 – 3.4, 3.5
	4.3: Right Triangle Trigonometry 4.4: Trigonometric Functions of Any Angle	Recitation 8 – 4.1, 4.2
	Exam 2 covers 3.1-3.5, 4.1-4.4	Review for Exam 2 Exam 2 in class
	4.5: Graphs of Sine and Cosine Functions 4.6: Graphs of Other Trigonometric Functions 4.7: Inverse Trigonometric Functions	Recitation 9 – 4.3, 4.4
	5.1: Verifying Trigonometric Identities 5.2: Sum and Difference Formulas	Recitation 10 – 4.5, 4.6, 4.7
	5.3: Double Angle and Half-Angle Formulas 5.5: Trigonometric Equations	Recitation 11 – 5.1, 5.2
	6.1: Law of Sines 6.2: Law of Cosines	Review for Final Exam Recitation 12 – 5.3, 5.5
	Final Exam Week	FINAL EXAM (Cumulative)

Homework: You will need to complete the homework in MML. The sections that are covered in a particular week will be due the following Tuesday at 11:59 PM. Students are expected to read the lecture notes and watch the short example videos in the Module section in Canvas before each class.

Recitation: You will be required to attend recitation where you will be working on a mix of mechanical and application problems with other students.

Attendance is required. For classes that meet two days a week, the maximum number of allowed absences is four. For classes that meet three days a week, the maximum number of allowed absences is six. Students who exceed those numbers will automatically receive a grade of E. **If you are more than 10 minutes late to class, you will be counted absent.**

Instructor-Initiated Drop: At the instructor's discretion, a student who has not attended any class during the first week of classes may be administratively dropped from the course. However, students should be aware that non-attendance will NOT automatically result in their being dropped from the course. Thus, a student should not assume they are no longer registered for a course simply because they did not attend class during the first week. It is the student's responsibility to be aware of their registration status.

Makeup policy: Makeup quizzes and exams are given at the discretion of the instructor and only in the case of verified medical or other emergency, which **must be documented**. The instructor must be **notified before the test is given**. Notify your instructor directly or call the Math Department Office (480-965-3951) and leave a message.

Exam policies:

- It is your responsibility to bring a permitted graphing calculator to the exam. Your teacher will not be able to supply you with a calculator if you do not bring yours. You cannot share a calculator with another student who is also taking the test. Your calculator memory may be viewed during any exam and will be cleared if anything suspicious is written therein. The Instructor has the right to regard any suspicious material in your calculator memory as cheating. All internet-capable devices must be turned off and be made inaccessible during all exams. Anyone who accesses such a device during an exam for any reason will receive a score of 0 for that exam and possible further disciplinary measures.
- Any (parts of) exams, assignments, reports, or solutions to these, from current or previous semesters, posted to any website not affiliated with ASU will result in academic integrity disciplinary actions against the students posting them and the students using them.
- For each exam, you have to bring picture ID. If you cannot show picture ID, instructors or proctors may take your picture with your test. If you do not consent to that, they do not have to accept your test.

Tutoring:

- The Engineering Tutor Center (free of charge) in ECG 104 will be open approximately the same hours Mon – Fri. as the Math Tutor Center.
- The Math Tutor Center (free of charge) in WXL 116 will be open the following hours:
 - 8:00 a.m. - 8:00 p.m. Monday through Thursday
 - 8:00 a.m. - 3:00 p.m. Friday
 - 1:00 p.m. - 6:00 p.m. Sunday
- The Mathematics Community Center (MC²) in WXL 303
 - Monday – Friday from 10:30 AM – 7:00 PM (no tutors after 4:00pm)
- Many residence halls and the Memorial Union also offer evening or weekend free tutoring to all ASU students enrolled in math courses as part of the Student Success Centers.

Come in for help before it is too late, and several days before an exam day to strengthen your preparation. In order to be admitted to the Tutor Center each student must present their valid ASU Sun Card.

Final Exam Make-up Policy: The final exam schedule listed in the Schedule of Classes will be strictly followed. Except to resolve those situations described below, no changes may be made in this schedule without prior approval of the Dean of the College of Liberal Arts and Sciences. Under this schedule, if a conflict occurs, or a student has more than three exams on one day, the instructors may be consulted about an individual schedule adjustment. If necessary, the matter may be pursued further with the appropriate dean(s). This procedure applies to conflicts among any combination of Downtown Phoenix campus, Tempe campus, Polytechnic campus, West campus, and/or off campus class. Make-up exams will NOT be given for reasons of a non-refundable airline tickets, vacation plans, work schedules, weddings, family reunions, and other such activities. Students should consult the final exam schedule before making end-of-semester travel plans.

Withdrawal: A student may withdraw from a course with a grade of **W** during the withdrawal period. The instructor's signature is not required. A complete withdrawal must be done in person and that it involves withdrawing from all ASU classes, not just Math 171. Students will not be withdrawn if they merely stop coming to class. It is a student's responsibility to verify whether they have in fact withdrawn from a class.

The grade of Incomplete: A grade of incomplete will be awarded only in the event that a documented emergency or illness prevents the student who is doing acceptable work from completing a small percentage of the course requirements. The incomplete is not a "get out of jail free" card and cannot be used as an alternative to withdrawal, or as a way to re-take the class for free. The guidelines in the current general ASU catalog regarding a grade of incomplete will be strictly followed.

The grade of XE: A grade of XE is reserved for "failure due to academic dishonesty." The grade goes on the student's transcript and usually remains there permanently. Examples of academic dishonesty are signing an attendance sheet for another student or asking another student to sign an attendance sheet on your behalf, accessing unauthorized help while taking an exam, and attempting to influence a grade for reasons unrelated to academic achievement. Asking for a higher grade than the one you have earned because you need a higher grade to maintain a scholarship, or to satisfy your own or someone else's expectations constitutes academic dishonesty.

Academic Dishonesty and Student Ethics

Academic honesty is expected of all students in all examinations, papers, 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>. Students are expected to maintain the highest ethical standards at all times and in all dealings and interactions with fellow students, faculty, teaching assistants and staff.

Students with Disabilities

Disability Accommodations: Qualified students with disabilities who will require disability accommodations in this class are encouraged to make their requests to me at the beginning of the semester either during office hours or by appointment. Note: Prior to receiving disability accommodations, verification of eligibility from the Disability Resource Center (DRC) is required. Disability information is confidential.

Establishing Eligibility for Disability Accommodations

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. Their office is located on the first floor of the Matthews Center Building. DRC staff can also be reached at: [480-965-1234](tel:480-965-1234) (V), [480-965-9000](tel:480-965-9000) (TTY). For additional information, visit: www.asu.edu/studentaffairs/ed/drc. Their hours are 8:00 AM to 5:00 PM, Monday through Friday.

Policy on Threatening Behavior

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.

Classroom behavior:

Students will be expected to arrive on class on time, to not leave early, nor to be disruptive in any manner. Excessive absences and tardiness, and any behavior that disrupts the learning environment, may lead to sanctions as determined by the instructor. All electronic devices should be turned off and put away for the duration of the class period (Exceptions, such as using a laptop for note-taking, must be cleared with your instructor beforehand). In the worst cases, students may be subject to withdrawal from the class. The procedures for initiating a disruptive behavior withdrawal can be found at:

<https://clas.asu.edu/resources/disruptive-behavior>

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 to discuss any concerns confidentially and privately.

Absences related to religious observances/practices: If you will be absent from class due to a religious observance or practice, it is your responsibility to inform the instructor as soon as possible. Your instructor will work with you on alternative and reasonable arrangements for any time missed.

Absences related to university sanctioned events and activities: If you will be absent from class due to participation in a university sanctioned event/activity, it is your responsibility to inform the instructor as soon as possible. Your instructor will work with you on alternative and reasonable arrangements for any time missed.

Note: This syllabus is tentative and should not be considered definitive. The instructor reserves the right to modify it (including the dates of the tests) to meet the needs of the class. It is the student responsibility to attend class regularly and to make note of any change. The Instructor also reserves the right to create class policies in regard to homework due date, late assignments, etc.