

Precalc Algebra & Trig

MATH 115-012 | Fall 2022 | 3 Credit Hours

Lecture

Mr. Matthias Dogbatsey

Contact Information

UA Campus Directory:

- Mr. Matthias Dogbatsey (<https://www.ua.edu/directory/?i=mdogbatsey#listing>)

Prerequisites

UA Course Catalog Prerequisites:

UA Math Placement Test Score of 370-439 or ACT Math Subscore of 28 or old SAT Math Subscore of 630 or new SAT Math Subscore of 650

Course Description

Course Description and Credit Hours

No description found

Required Texts

Required Texts from UA Supply Store:

- ACCESS GRANTED CODELESS / MATH 115 AGP (STEWART/WEBASSIGN ACCESS ALG. AND TRIG.) (Required)
- CALCULATOR CASIO FX-260 SOLAR II (Required)

CALCULATOR: The only handheld calculator you will be allowed to use on a test is the Casio fx-260. Using a different hand-held calculator on a test is considered academic misconduct. Practice with it! You cannot get calculator help during testing.

Free Tutoring: Math help will be available from MTLC in-person and online via Zoom (times will be

shown in Blackboard). Students are encouraged to utilize this resource as much as possible.

Course Email: Students are responsible for all important content sent to them in course emails by their instructor. Students should check and read their UA email often.

Course Objectives

This is an **accelerated** combination of MATH 112 and MATH 113 (Algebra and Trigonometry) and is a fast track to MATH 125. This course is intended for students with a **very strong background** in college preparatory mathematics. Evaluation will be based on online homework, four tests, and a comprehensive final exam.

- The course presents the essential characteristics and basic processes of inquiry and analysis in the discipline.
- The course encourages the development of critical thinking skills and requires students to analyze, synthesize, and evaluate knowledge.
- The course considers its subjects in relation to other disciplines and to the human condition.
- The course is not limited to majors in any discipline.
- The course does not focus on professional skills.

Student Learning Outcomes

GENERAL LEARNING OUTCOMES FOR 100-200 LEVEL COURSES:

- Students will be able to discriminate between reliable and less reliable information in their decision-making.
- Students will be able to develop effective mathematical communication skills.

LEARNING OUTCOMES FOR THIS COURSE: Upon completion of this course, students will be able to

- Understand and graph polynomial, rational, exponential, logarithmic, and trigonometric functions and their inverses.
- Solve linear, quadratic, absolute value, rational, exponential, logarithmic equations and inequalities and trigonometric equations.
- Understand polar coordinates.
- Perform vector operations.

Other Course Materials

EMAIL: You can reach your instructor by emailing your instructor at math115@ua.edu (<mailto:umidkiff@ua.edu>) . **Please put my name and section number "Dogbatsey-012" in the subject box.** This section is 012. All correspondence for this course will be made through your crimson email account. Students are responsible for all important content sent to them in course emails by the instructor. **Students should check and read their Crimson email often.**

WORKING: The Math 115 course work can be done on any personal computer with internet access.

- To get to our course: Log in to ulearn.blackboard.com using your myBama information, click on your course, click on the "Access WebAssign" link
- The course software may work better with some browsers than others. If you have trouble, try a different internet browser. Troubleshoot by checking to make sure you are allowing pop-ups and allowing cookies always.
- **No full-credit deadline extensions will be given because of internet or computer issues experienced outside of the MTLC.** To be safe, work well ahead of the deadlines so that if there is any problem you will be able to go to the MTLC and complete the assignment before the deadline.

Covid-19: If a student is in quarantine, you must contact your instructor immediately to make arrangements for access to the notes from the missed days.

DISABILITY STATEMENT:

We cannot provide any special accommodations for any student unless directed to do so by the Office of Disability Services (ODS). Students who may require special accommodations must register with ODS each semester at www.odsonlineportal.ua.edu (<http://www.odsonlineportal.ua.edu/>) .

If approved, ODS will generate a Faculty Notification Letter, which you must email to instructors of each of your classes. Your math instructor must receive this letter at least 3 days prior to a test to ensure your accommodations are in place for that and subsequent tests.

After you send the Faculty Notification Letter, you should receive an email from your instructor and/or mtlcods@ua.edu with details about providing your accommodations. If ODS recommends extra time for your tests and this creates a conflict with testing at your regularly scheduled test time, you must email mtlcods@ua.edu (<mailto:mtlcods@ua.edu>) at least 3 days prior to your test to reschedule.

Outline of Topics

Math 115 Assignment Schedule (subject to change)
1.4 Hmwk-Solving Quad Eqs
1.5 Hmwk-Complex Numbers

1.6 Hmwk-Solving Other Eqs
1.8 Hmwk-Solve Abs Value Eqs and Ineqs
2.1 Hmwk-Functions & 2.2 Hmwk-Graphs of Functions
2.6 Hmwk-Transformations of Functions
2.7 Hmwk-Combining Functions
2.8 Hmwk-One-to One Functions and Their Inverses
3.1 Hmwk-Quadratic Functions & Models
3.2 Hmwk-Polynomial Functions and Their Graphs
3.3 Hmwk-Dividing Polynomials
3.4 Hmwk-Real Zeros of Polynomials
3.6 Hmwk-Rational Functions
3.7 Hmwk-Polynomial and Rational Inequalities
4.1 Hmwk-Exponential Functions & 4.2 Hmwk-Natural Exponential Function
4.3 Hmwk-Logarithmic Functions
4.4 Hmwk-Laws of Logarithms
4.5 Hmwk-Exponential & Logarithmic Eq
5.1 Hmwk-Angle Measure
5.2 Hmwk-Trigonometry of Right Triangles
5.3 Hmwk-Trig Functions of Angles
6.1 Hmwk-The Unit Circle
6.2 Hmwk-Trig Functions of Real Numbers
6.3 Hmwk-Trigonometric Graphs
6.4 Hmwk-More Trigonometric Graphs
6.5 Hmwk--Inverse Trigonometric Functions
5.4 Hmwk-Inverse Trig Functns & Right Triangles
5.5 Hmwk-The Law of Sines
5.6 Hmwk-The Law of Cosines

7.1 Hmwk-Trigonometric Identities
7.2 Hmwk-Addition & Subtraction Formulas
7.3 Hmwk-Double-Angle, Half-Angle
7.4 Hmwk-Basic Trigonometric Equations
8.1 Hmwk-Polar Coordinates
9.1 Hmwk-Vectors in Two Dimensions

EARLY COURSE COMPLETION: This option is not available this semester.

MTLC Online ZOOM Tutoring: Free drop-in tutoring both in-person and on Zoom available throughout the semester. No appointment necessary. Schedule and zoom link will be shown in Blackboard. Students are encouraged to use this tutoring as much as possible.

EXTRA - HELP: Capstone Center for Student Success: website: <https://success.ua.edu> (<https://success.ua.edu>), phone number 205-348-7011.

Diagnostic Test:

- A required Diagnostic of Prerequisite Topics is scheduled in WebAssign to assess your understanding of the prerequisites of the course. It will be graded for you to know your strengths and weaknesses of the required prerequisite concepts. However, this grade will not be a part of your overall grade in Math 115. This should be done without help so you can get an accurate diagnosis on the concepts you remember from the previous course.
- The diagnostic test helps you identify the prerequisites that you need help with, so it is important to complete it as soon as possible. There is a review assignment based off the diagnostic that you can use to help you remember/re-learn the material needed to be successful in this course. The review assignment is optional, but is a great resource to help you fine tune the concepts needed for Math 115.
- The diagnostic test must be completed by the first homework assignment and before test 1.

Exams and Assignments

TEST DAYS:

Test 1 - September 7th (at your scheduled class time)

Test 2 - September 28th (at your scheduled class time)

Test 3 - October 19th (at your scheduled class time)

Test 4 - November 16th (at your scheduled class time)

Final Exam - December 7th, 4pm-6pm.

HOMEWORK: There will be a homework assignment for each section. Each homework assignment has a due date and time posted in the syllabus and in the software. The assignment must be completed before the deadline for full credit. **Each homework question can be attempted up to 12 times.** Homework problems completed at least 24 hours **before** the deadline will get a **10% bonus**. If you do not complete the assignment on time, you may request an extension (with 30% reduction) within 14 days after the deadline. **Always SAVE or SUBMIT your work. Unsaved work will be LOST. Your lowest 3 homework scores will be dropped.**

TEST REVIEWS: There will be 4 test reviews and a final exam review. **Each review will NOT count as a graded assignment.** The test reviews are only available to help you prepare for the tests. These reviews are the best way to prepare for the tests. If you master the concepts in the reviews, then you will do very well on the tests. The reviews span the material for the entire test and are therefore very long. You should start working on the reviews well before their deadlines. Use them to gauge your understanding of the test material.

TESTS AND FINAL EXAM: There will be 4 tests and a mandatory, comprehensive Final Exam. All tests will be taken in person during your class time. You will have 50 minutes to take each test and 120 minutes to take the final exam. You will be given 2 submissions when you take your test and final. If time allows, you can correct your mistakes after your first submission and re-submit. There is no penalty for answers corrected on the 2nd submission.

Grading Policy

COURSE GRADES: This course is under the “A, B, C, and NC” policy, +/- grades will be given.

4 Tests (1 drop)	50%
Homework (3 drops)	20%
Final Exam (cannot be dropped)	30%
Total	100%

Students must earn a minimum of 70% (C-) to successfully pass this course.

Note: The last day to drop this course with a W is Wednesday, October 26, 2022. No withdrawals from this course after this date.

COURSE GRADE SCALE

A+	98% -100%,	A	92% - 97.9%,	A-	90% - 91.9%
B+	88% - 89.9%,	B	82% - 87.9%	B-	80% - 81.9%

C+ 78% – 79.9%, C 72% – 77.9% C- 70% – 71.9%

NC< 70% (NC means NO CREDIT)

Policy on Missed Exams and Coursework

Missed assignments will be scored zero. No makeup tests will be given.

- **If homework assignments are missed or not completed for any reason, you may request an extension in WebAssign within 14 days of the deadline. You have to do this on your own. If granted, you may complete the assignment after its deadline for a 30% reduction.** Only the work submitted after the deadline will be penalized; all work submitted before the deadline gets full credit. Any assignments not attempted will be scored 0. At the end of the semester, a minimum of your lowest 3 homework scores will be dropped.
- Even though WebAssign may extend an assignment past the end of the semester, all extended work must be submitted by Thursday, 12/8 at 8am to count towards your final grade.
- **If a regular test is missed due to any circumstance, no deadline extension or makeup test will be given.** The zero test score will be considered your lowest and will be dropped. **Only one** test score may be dropped.
 - COVID-19 exception: If a student misses a test due to COVID-related quarantine requirement and provides official UA documentation of that quarantine requirement, that missed test score will be replaced with the Final Exam score. Submit official documentation at mtlc.ua.edu/petition/.
 - Students who will miss work due to official University business or military business must make other arrangements 3 days prior to missing assignments. Submit official UA/Military documentation at mtlc.ua.edu/petition.
- Do not rely on earlier assignments as being your drops just in case a situation arises later in the semester where you might need to apply those drops. The selection and dropping of lowest scores will happen **at the end of the semester** after all assignments are past due. Do your best on **every** assignment.

Attendance Policy

CLASS Attendance and lectures:

This course has specific meeting days, times, and classroom. You are expected to attend all of your scheduled classes. Class typically meets each Monday, Wednesday and Friday unless the University is closed.

Covid-19: If a student is in quarantine, you must contact your instructor immediately to make arrangements for access to the notes from the missed days.

Notification of Changes

The instructor will make every effort to follow the guidelines of this syllabus as listed; however, the instructor reserves the right to amend this document as the need arises. In such instances, the instructor will notify students in class and/or via email and will endeavor to provide reasonable time for students to adjust to any changes.

Department of Mathematics Academic Misconduct Policy

1. During tests you may only use a calculator that has been specifically approved by the instructor. Using or being in possession of an unauthorized calculator will be considered academic misconduct.
2. Taking a test for another student will be treated as academic misconduct by both parties. In particular, showing an instructor a fake ID or another student's ACT card will be treated as academic misconduct.
3. Receiving or providing assistance of any kind during an exam will be treated as academic misconduct by both parties.
4. Cellphones must be turned completely off and placed with other belongings on the floor. All watches must be taken off and put away. DO NOT put your phone or watch in your lap or on your chair or desk. Physically holding or concealing on your person a phone, watch or other unauthorized technological device (including but not limited to headsets, earphones, earbuds, microphones, cameras, or scanning pens) will be treated as academic misconduct.
5. If you are seen using an unauthorized device, the instructor may request that you turn it over. It will be returned at the end of the exam. However, the instructor does not have to request your device in order to charge you with academic misconduct.
6. If for any reason you must have access to your phone while taking a test, you must inform an instructor prior to accessing your phone. The instructor must be present while you use the phone. Failure to do so will be treated as academic misconduct.
7. If necessary, scratch paper will be provided. No other paper is allowed; being in possession of any unauthorized papers will be treated as academic misconduct.
8. You may review your test before leaving the exam. You may not photograph your exam or write down or copy any information pertaining to the test, nor may you share any information about the test with anyone by any means. This includes sharing information by word of mouth, written correspondence, electronic device or any type of social media. Providing information about the test to other students will be treated as academic misconduct. Also, having in your possession information about any test prior to the test that was not given to you by the instructor will be treated as academic misconduct.
9. You may not leave your place during a test for any reason. This includes getting water or going to the restroom. You must take care of these things before the start of the test. If you leave your test without permission, your test will be collected and you will not be allowed to continue working on it.
10. Interrupting the exam or creating a disturbance to cause a distraction during the exam will be treated as academic misconduct.
11. In order to enforce these rules, an instructor may require you to do any of the following. Failure to comply will be treated as academic misconduct.
 - a. Remove hats, hoods, scarves, or other head coverings.
 - b. Remove bulky coats, sweaters or other over-garments.
 - c. Roll up sleeves.
 - d. Remove anything seen in your ears or on your person.
 - e. Empty your pockets and display the contents.
 - f. Sit in assigned seats prior to the start of the exam.

- g. Require you to move to a new seat during the exam.

If you wear a hat, head covering or long-sleeved garment for religious reasons, the instructor may still request to examine under them. If you would prefer to have this done privately, or by an instructor or staff member of the same sex, you will be accommodated. To ensure accommodation, you must discuss this with your instructor prior to the test.

If you use a hearing aid or other adaptive technology that could be mistaken for an earbud or other unauthorized electronic device, please notify your instructor prior to the test. You may be asked to provide documentation of your need to use such a device.

MTLC Specific Policies

1. In the MTLC, you may only use either the **Casio fx-SOLAR SCHOOL** or the **Casio fx-260 SOLAR II**.
2. In the MTLC, swiping another student's ACT card will be treated as academic misconduct.
3. In the MTLC having any other website other than the test open during a test will be treated as academic misconduct.
4. In the MTLC, if you leave your computer during a test without permission, your exam will be closed and you will forfeit any remaining exam time.

Statement on Academic Misconduct

Students are expected to be familiar with and adhere to the official Academic Misconduct Policy (<https://catalog.ua.edu/undergraduate/about/academic-regulations/student-expectations/academic-misconduct-policy/>) provided in the Online Catalog.

Statement On Disability Accommodations

Contact the Office of Disability Services (ODS) (<https://catalog.ua.edu/undergraduate/about/support-programs/disability-services/>) as detailed in the Online Catalog.

Severe Weather Protocol

Please see the latest Severe Weather Guidelines (<https://ready.ua.edu/severe-weather-guidelines/>) in the Online Catalog.

Pregnant Student Accommodations

Title IX protects against discrimination related to pregnancy or parental status. If you are pregnant and will need accommodations for this class, please review the University's FAQs on the UAct website (<https://www.ua.edu/campuslife/uact/information/pregnancy/>).

Religious Observances

Under the Guidelines for Religious Holiday Observances, students should notify the instructor in writing or via email during the first two weeks of the semester of their intention to be absent from class for religious observance. The instructor will work to provide reasonable opportunity to complete academic responsibilities as long as that does not interfere with the academic integrity of the course. See full guidelines at Religious Holiday Observances Guidelines (<https://provost.ua.edu/oaa-guidelines-for-religious-holidays-observance>) .

UAct Statement

The University of Alabama is committed to an ethical, inclusive community defined by respect and civility. The UAct website (www.ua.edu/uact (<https://www.ua.edu/uact>)) provides extensive information on how to report or obtain assistance with a variety of issues, including issues related to dating violence, domestic violence, stalking, sexual assault, sexual violence or other Title IX violations, illegal discrimination, harassment, hate or bias incidents, child abuse or neglect, hazing, threat assessment, retaliation, and ethical violations or fraud.

Wellness Resources

College can be a stressful time

If you or someone you know is facing a challenging time or dealing with academic or personal stress, anxiety, depression, or other concerns, we strongly encourage and support you to seek assistance or to help friends find the care that they may need. Please refer to our Campus Resource List for Students (<https://alabama.box.com/s/nz3gs827kx538255typ9hm5owd7x0yj8>) .

Also, If you are experiencing a personal crisis and need urgent assistance, you can also contact the following resources:

Counseling Center

- Monday-Friday during routine Center hours (205-348-3863).
- Weekends, holidays, after-hours (contact UAPD at 205-348-5454 and ask to speak with the on-call counselor).
- You may also text BAMA to 741-741 to text with a trained volunteer.

Women and Gender Resource Center

- Monday-Friday during routine Center hours (205-348-5040).
- Weekends, holidays, after-hours (contact UAPD at 205-348-5454 and ask to speak to the on-call advocate for the WGRC).