



Walters State Community College Course Syllabus

Course Information

Course Number and Name: MATH 1710 Precalculus Algebra

Section ID: 81124.202380

Semester and Year: Fall 2023

Credit Hours: 3

Start Date: August 21, 2023

End Date: December 08, 2023

Course Format: WEB - Web Classes

Catalog Course Description: A pre-calculus course in the theory and application of polynomial, logarithmic, exponential, rational, power and inverse functions. This course is designed for people majoring in technical fields and to prepare students to take MATH 1910 - Calculus I. Students should consult with their advisor to decide among MATH 1530, MATH 1630 and MATH 1710. Prerequisite(s): ACT Math score of 22 or higher (or equivalent score as determined by the college placement and assessment procedure) or completion of mathematics learning support requirements. Co-rerequisite(s): MATH 0030 required for students with ACT math score below (or equivalent score as determined by the college placement and assessment procedure) or have not completed all learning support mathematics requirements and MATH 1030; or permission of Dean of Mathematics. **F, S, Su**

General Education Course Designation: General Education Course

Meeting Details: TBD

Course Drop Deadline: October 27, 2023

Instructor Information

Name: David Atkins

Office Location: MBSS 208

Office Hours: By appointment

Office Phone: 423-585-6934

Email: david.atkins@ws.edu

Supervisor Name: Chris Knight

Supervisor Phone: 423-585-6879

Secretary Name: Tammy Holt

Secretary Phone: 423-585-6864

Required Textbook(s) and Materials



Precalculus with Modeling & Visualization

Authors: Rockswold

Publisher: Pearson

Edition: 6th

Additional Information

NOTE: MyLab Math is REQUIRED. Physical Textbook is OPTIONAL.

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Supplemental or Optional Materials

1. TI-83 or TI-84 graphing calculator required for course – discuss with instructor if you own a different graphing calculator
2. Web Camera with Microphone

Student Learning Outcomes/Objectives

- 1. Demonstrate an understanding of functions by several means (verbally, numerically, graphically and symbolically).
- 2. Use linear, quadratic, polynomial, rational, exponential, logarithmic functions, and inverse functions to solve problems and judge the reasonableness of the results.
- 3. Analyze data, develop representative mathematical models (including regression analysis), and evaluate the appropriateness of the model.
- 4. Use appropriate technology to solve mathematical problems.
- 5. Build sum, difference, product, quotient, and composite functions.
- 6. Use transformations to change a graphical model by varying constants and coefficients in a function.
- 7. Demonstrate an understanding of the concept of imaginary numbers and do basic operations with complex numbers.

8. Apply the Fundamental Theorem of Algebra to find all complex zeros of a polynomial.
9. Solve logarithmic and exponential equations.
10. Find horizontal and vertical asymptotes of rational functions and sketch the graphs.

Instructional Approach and Methods

This section of this course is an asynchronous WEB class. That means that there are no set meeting times for instruction or assessment. This class is mostly self-paced, but there are due dates each week to help keep you on track to complete the class. You are welcome to work ahead. Your progress in this class should be as follows:

1. With each new section, either download the PowerPoint presentation from eLEARN or go to MyLab Math for video content from the publisher. There is a companion lecture guide for each PPT file in eLEARN.
2. Complete the lecture guide with the help of the PowerPoint presentation or watch the video. Take notes while watching the video.
3. Complete the homework assignment in MyLab Math.
4. Take the first attempt for the quiz.
 1. If you are happy with your grade on the first attempt, you are not required to take the second attempt.
 2. You are strongly discouraged from starting the second attempt until after you have gone back over your notes and reviewed the kinds of questions that you were asked on the first attempt.
5. Prepare for the section tests by reviewing your notes and the homework assignments that will be covered in the section tests. You can always go back into the homework and review or work similar questions until you understand how to answer the question correctly the first time every time.
6. Complete your tests using HonorLock for your proctored unit tests and final exam.

Assessment, Evaluation and Testing Procedures

1. Regular attendance and participation in the course are necessary for your success. The first day of attendance will be recorded as the day the student registers for MyLab Math. The last date of attendance will be recorded as the last day the student works in MyLab Math, if the student does not take the final exam.
2. Homework will be administered through the software package MyLab Math

3. Quizzes will be administered through the software package MyLab Math
4. Four, unit tests will be administered through the software package MyLab Math
5. There will be a mandatory comprehensive final exam. The final exam will be administered in MyLab Math. The final exam must be proctored through the online service HonorLock, or by appointment with me via Microsoft Teams or in-person. You will not be allowed to use your notes or the internet for your final exam. **There are no extensions granted for the final exam.**

Grade Composition:

Homework Average - 10%

Quiz Average - 15%

Test Average - 50%

Final Exam - 25%

Final Average = $0.10(\text{Homework Average}) + 0.15(\text{Quizzes}) + 0.50(\text{Test Average}) + 0.25(\text{Final Exam})$

Testing Procedures - All tests must be proctored through HonorLock or by appointment with me via Microsoft Teams or in-person. Students may not use their cellphone, notes, or any other outside material for the test, unless otherwise specified in Instructional Approach and Methods section of the syllabus.

To access HonorLock, there will be a section in eLearn under "Course Content" titled "HonorLock." More specific information about system requirements for HonorLock and best practices for online tests will be given in the "HonorLock" Section in eLearn.

Grading Scale

A	90-100
B	80-89
C	70-79

D	60-69
F	0-59

Assignments

All assignments will be completed through MyLab Math. Students are responsible for keeping track of all due dates. See Instructional Approach and Methods section for more information.

Class Participation

Completing homework assignments, quizzes and exams by the due dates is mandatory for success in this course. Attendance will be taken throughout the course and determined as follows: To be counted present on the first day of class, students must register for the MyLab Math course, and complete the MyMathLab orientation titled "MLM Orientation." To be counted present on the last day of class, students must submit the final exam. For students who do not submit the final exam, their last date of attendance will be last day in which a homework assignment, quiz or exam was attempted in MyMathLab.

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Additional Course Requirements/Details/Information

Chapter 1 -- Introduction to Functions and Graphs

1. Numbers, Data, and Problem Solving (**treat as a review**)
2. Visualization and Graphing Data (**treat as a review**)
3. Functions and Their Representations
4. Types of Functions and Their Rates of Change

Chapter 2 -- Linear Functions and Equations

1. Equations of Lines (**treat as a review**)
2. Linear Equations (**treat as a review**)
3. Linear Inequalities (**treat as a review**)
4. More Modeling with Functions

Chapter 3 -- Quadratic Functions and Equations

1. Quadratic Functions and Models
2. Quadratic Equations and Problem Solving
3. Complex Numbers
4. Quadratic Inequalities
5. Transformations of Graphs

Chapter 4 – More Nonlinear Functions and Equations

1. More Nonlinear Functions and Their Graphs
2. Polynomial Functions and Models
3. Division of Polynomials
4. Real Zeros of Polynomial Functions
5. The Fundamental Theorem of Algebra
6. Rational Functions and Models
7. More Equations and Inequalities
8. Radical Equations and Power Functions

Chapter 5 - Exponential and Logarithmic Functions

1. Combining Functions
2. Inverse Functions and Their Representations
3. Exponential Functions and Models
4. Logarithmic Functions and Models
5. Properties of Logarithms
6. Exponential and Logarithmic Equations and Inequalities
7. Constructing Nonlinear Models

Chapter 9 – Systems of Equations and Inequalities

1. Functions and Equations of Two Variables (emphasize solutions of non-linear systems.)
2. Systems of Equations and Inequalities in Two Variables (optional)

An Introduction to Matrices (Selected topics from Sections 9.4-9.6) (as time permits)

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Academic Honesty

Faculty expect all students to refrain from acts of academic misconduct including but not limited to:

1. Plagiarism - refers to using another person's ideas or writing without giving proper credit to the original source. Indulging in this type of conduct will subject the student to disciplinary sanctions, which may be imposed through the regular institutional procedures of Walters State Community College as outlined in the Student Handbook. Plagiarism will result in a grade of "0" for the paper/exam/presentation. Student Conduct and Disciplinary Sanctions contained in the college Catalog/Student Handbook apply (see policy 04:18:02 Disciplinary Sanctions).

Plagiarism includes, but is not limited to the following:

- a. Using cut/paste tool from original document with no references given.
 - b. Copying another student's work and submitting it as one's own.
 - c. Forging or otherwise altering signatures.
 - d. Giving or falsifying academic documents or materials.
2. Cheating - construed as attempting to deceive or mislead which includes, but is not limited to the following:
 - a. Utilizing old tests, projects, notes or written papers.
 - b. Providing unauthorized information to a fellow student about exam content.
 - c. Receiving unauthorized aid from any source with quizzes, examinations, or other assignments.
 - d. Seeking information in an unacceptable manner during/preceding an exam or other assigned work (cheat sheet, verbal exchange, looking at another person's paper or electronic device, utilizing headphones, using textbook when the test/quiz is not an open book test/quiz, using textbook test bank etc.).
 - e. Consulting with a classmate or others when taking a computerized test.
 - f. Disregarding other specific policies and procedures outlined for a particular class.
 - g. Utilizing unapproved technology/electronic equipment during testing (i.e.: mobile devices such as cell phones, smart devices, or tablets, etc.).

- h. Using the same Internet Protocol network address (IP address) as another student for testing without approval from the course faculty.
3. The use of any generative artificial intelligence (AI) tool, such as OpenAI's ChatGPT, Google's Bard, or any other pre-trained language model (commonly referred to as "chatbot"), must be cited for any assignment where it has been used and may not be used unless specifically allowed by your instructor. Please see your instructor or the course policies within the syllabus if you have questions.

Student Resources

TUTORING SERVICES

Students in need of tutoring assistance are encouraged to contact the Office of Student Tutoring located as follows:

- Morristown Campus - Student Services Building Room L107 - (423) 585-6920
- Niswonger Campus - GRNV 226 - (423) 798-7982
- Sevierville Campus - MMH Room 210 - (865) 286-2787
- Claiborne Campus - Room 123A - (423) 851-4761

Specific tutoring assistance in mathematics and writing is available in-person and online as follows:

- Morristown Campus - English Learning Lab - HUM 120 - (423) 585-6970

[Walters State English Learning Lab \(opens in new window\)](https://www.waltersstate.edu/academics/humanities/writing-lab)
[ws.edu/academics/humanities/writing-lab](https://www.waltersstate.edu/academics/humanities/writing-lab)

- Morristown Campus - Mathematics Lab - MBSS 222 - (423) 585-6872

[Walters State Mathematics Learning Lab \(opens in new window\)](https://www.waltersstate.edu/academics/mathematics/learning-lab)
[ws.edu/academics/mathematics/learning-lab](https://www.waltersstate.edu/academics/mathematics/learning-lab)

TECHNOLOGY SUPPORT

Students who need assistance with computing and technology issues should contact the IET Helpdesk by phone at Morristown: (423) 318-2742; Niswonger: (423) 798-8186; or Sevierville: (865) 286-2789 or on-line access.

[Walters State Helpdesk \(opens in new window\)](https://helpdesk.waltersstate.edu)
[helpdesk.ws.edu](https://helpdesk.waltersstate.edu)

STUDENTS WITH DISABILITIES SUPPORT SERVICES

Students with disabilities must register with Student Support Services each semester in the Student Services Building, Room U134 (phone (423) 585-6892) if they need any special facilities, services, or consideration.

[Walters State Student Support Services \(opens in new window\)](https://www.waltersstate.edu/student-services/disability/)
[ws.edu/student-services/disability/](https://www.waltersstate.edu/student-services/disability/)

SUICIDE PREVENTION STATEMENT

Walters State is committed to and cares about all students. Support services are available for any person at Walters State who is experiencing feelings of being overwhelmed, hopelessness, depression, thinking about dying by suicide, or is otherwise in need of assistance. For immediate help, contact the National Suicide Prevention Lifeline by calling or texting 9-8-8 or the Trevor Lifeline at 1-866-488-7386. Veterans may also contact the Veterans Crisis Line at 1-800-273-8255 (press 1) or Text 838255.

Walters State has a relationship in place with the following community agencies to provide services (may include crisis referral services, prevention screenings, etc.):

- Cherokee Health Systems 423-586-5032
- Frontier Health 423-467-3600

College Policies

STUDENTS HANDBOOK AS OFFICIAL GOVERNING DOCUMENT

This class is governed by the policies and procedures stated in the current Walters State Community College Student Handbook. All students attending Walters State Community College, regardless of the time, location, or format of the class, must abide by the rules and regulations outlined in the current Walters State Catalog/Student Handbook and the current Walters State Timetable of Classes.

[Walters State Catalog \(opens in new window\)](https://www.waltersstate.edu/catalog/)
[catalog.ws.edu/](https://www.waltersstate.edu/catalog/)

[Walters State Timetable of Classes \(opens in new window\)](https://www.waltersstate.edu/admissions/registration/)
[ws.edu/admissions/registration/](https://www.waltersstate.edu/admissions/registration/)

PURPOSE, LIMITATIONS AND MODIFICATION OF SYLLABUS

This syllabus sets forth the expectations for the course content, work, and grading as well as expectations for student performance and conduct. The syllabus does not constitute a contract between the student and the instructor or the College. The information contained here is subject to

change at any time. The instructor reserves the right to modify this syllabus at any time with written notification to the students. Though changes are possible, it is expected that the course will be conducted as described in this syllabus for the semester/year specified in the Course Information section of the syllabus. This syllabus is only valid for the semester/year specified and course requirements are not guaranteed for future semesters.

COURSE GROUND RULES

- Students must attend the first day of on-ground class or contact the instructor prior to the first class. Failure to do this may result in being dropped from the class. Excessive absences may substantially lower the course grade.
- Regular class attendance is a student's obligation for any course regardless of format. (See the Walters State Catalog/Student Handbook). If a student misses class, it is his or her responsibility to contact the instructor regarding missed assignments and/or activities and to be prepared for the next class assignment.
- Students enrolled in web courses must follow the course attendance policy defined for online attendance during the first week of class and throughout the term. Failure to do this may result in being dropped from the class during week one OR may result in the accrual of absences which may negatively impact the student's grade in the course.
- Students who have not paid fees on time and/or are not correctly registered for this class and whose names do not appear on official class rolls generated by the Walters State student information system (MyWS) will not be allowed to remain in class or receive credit for this course.
- Electronic devices must not disrupt the instructional process or college-sponsored academic activity. Use of electronic devices is prohibited unless use of the device is relevant to the activity and use is sanctioned by the faculty member in charge. Electronic devices that are not relevant to the activity or sanctioned by the faculty member in charge should be set so that they will not produce an audible sound during classroom instruction or other college-sponsored academic activity.

FINANCIAL AID

Students receiving any type of financial aid or scholarship should contact the Financial Aid Office before making any changes to their schedule. Schedule changes without prior approval may result in loss of award for the current term and future terms.

All forms of student Financial Aid may be jeopardized or lost due to the lack of Satisfactory Academic Progress in one or multiple courses. Lack of Satisfactory Academic Progress may negatively impact a student's degree/certificate completion pace and further jeopardize Financial Aid eligibility.

CANCELLATION OF CLASSES AND ACADEMIC CONTINUITY

For information related to the cancellation of classes due to inclement weather or other events, please check the Senators Emergency Text system or the college's Web site at:

[Walters State Homepage \(opens in new window\)](#)

ws.edu/home/

[Walters State Facebook page \(opens in new window\)](#)

<https://www.facebook.com/WaltersState/>

[Walters State Twitter page \(opens in new window\)](#)

<https://twitter.com/waltersstate>

or call the college's student information line, 1-800-225-4770, option 1; the Sevier County Campus, (865) 774-5800, option 7; the Niswonger Campus (423) 798-7940, option 7; or the Claiborne County Campus, 423-636-6200, option 7. Also, please monitor local TV and radio stations for further announcements.

When an event or disaster interrupts the scheduled operations of the college and the ability to proceed with the academic course activities as planned, the college and your instructor may alter the course plan outlined in the syllabus. Should an event occur, students should refer to their course e-Learn pages and/or class materials previously delivered to receive guidance from their instructor. Students should continue to monitor the official college channels of communication listed in the above paragraph. If you would like to sign up for the Senators Emergency Text system, please go to the following Web site:

[Senator Emergency Text System \(opens in new window\)](#)

ws.edu/set/

Dual Enrollment students attending on a high school campus should refer to the high school inclement weather cancellations.

LEARNING MANAGEMENT SYSTEM

Brightspace (commonly known as eLearn or D2L) is the college's Learning Management System (LMS).

Brightspace is committed to accessibility by "deliver[ing] a learning experience that meets the needs of all people, regardless of age or ability." [Brightspace Accessibility Standard \(opens in new window\)](#)

Brightspace is also committed to guarding student data and privacy. [Brightspace Privacy Policy \(opens in new window\)](#)