
Notice of Student and Instructor Accountability

Students are accountable for all information on this syllabus, which is in this course's Moodle.

Course Information

Mathematics	Julie Grainger
College Algebra Math 143	Julie.grainger@mtchs.org
Modality- Mon-Fri (In person 11:40 – 12:29)	208-288-2928 extension 108

Catalog Course Description

This course includes fundamental concepts of algebra, equations and inequalities, functions and graphs, systems of equations and inequalities, and polynomial, rational, exponential, and logarithmic functions. Credit hours are not granted in both [MATH 143](#) and [MATH 147](#). PREREQ: [MATH 098](#) or [MATH 099](#), or satisfactory placement score. (This CWI course meets Idaho State Board of Education GEM competency requirements for GEM 3 - Mathematical Ways of Knowing.). (3 lecture hours, 0 lab hours, 3 credits)

Schedule

The first day of class is Wednesday, August 16, 2023, and we will complete the CWI final on April 30th – May 1st, 2024 for college credit. The class will meet every day from 11:40 am to 12:29 pm in room 108.

Instructor Availability

To best help my students, there are a variety of ways to get help. Ask questions during daily class, come in before or after school, or ask peers for help. Office hours are from: 7:15 - 7:40 a.m. (M, T, Th, F) and 2:10 - 2:45 p.m. (M, T, Th, F). In addition, MTCHS has a lunch lab with a certified math teacher. Email communication is usually replied to within 48 hours, exceptions would be holidays, vacations, or weekends.

Course Learning Outcomes

The Course Objective is to provide students with the mathematical foundation necessary for future mathematics courses along with being able to learn new concepts that will be helpful to you as employees, citizens, and consumers.

Students completing this course are expected to acquire the ability and skills to:

- A. Use and Understand Literal, Radical and Absolute Value Equations, Inequalities and Functions.
 1. Classify an equation/inequality/function or system based on its characteristics
 2. Solve Problems
 - a) Select appropriate strategy
 - b) Apply strategy and solve problem
 - c) Check solution(s) for accuracy and reasonableness
 - d) Interpret solution within context of problem
 - e) Justify process and solutions
 - f) Reflect upon process regarding efficiency, optional strategies, and additional uses

3. Graphs

- a) Identify graphs of basic equations/functions
- b) Graph basic graphs and their transformations
- c) Create equation/function from graph
- d) Identify basic characteristics including domain, range, areas where graph is increasing, decreasing or constant, extrema, intercepts, and minimum degree where appropriate

4. Applied Problems

- a) Analyze and interpret problem
- b) Select appropriate strategy
- c) Apply strategy and solve problem
- d) Check solution(s) for accuracy and reasonableness
- e) Interpret solution within context of problem
- f) Justify process and solutions
- g) Reflect upon process regarding efficiency, optional strategies, and additional uses

B. Use and Understand Quadratic Equations, Inequalities and Functions.

1. Classify an equation/inequality/function or system based on its characteristics

2. Solve Problems

- a) Select appropriate strategy
- b) Apply strategy and solve problem
- c) Check solution(s) for accuracy and reasonableness
- d) Interpret solution within context of problem
- e) Justify process and solutions
- f) Reflect upon process regarding efficiency, optional strategies, and additional uses

3. Graphs

- a) Identify graphs of basic equations/functions
- b) Graph basic graphs and their transformations
- c) Create equation/function from graph
- d) Identify basic characteristics including domain, range, areas where graph is increasing, decreasing or constant, extrema, intercepts, and minimum degree where appropriate

4. Applied Problems

- a) Analyze and interpret problem
- b) Select appropriate strategy
- c) Apply strategy and solve problem
- d) Check solution(s) for accuracy and reasonableness
- e) Interpret solution within context of problem
- f) Justify process and solutions
- g) Reflect upon process regarding efficiency, optional strategies, and additional uses

C. Use and Understand Polynomial and Rational Equations, Inequalities and Functions.

1. Classify an equation/inequality/function or system based on its characteristics

2. Solve Problems

- a) Select appropriate strategy
- b) Apply strategy and solve problem
- c) Check solution(s) for accuracy and reasonableness
- d) Interpret solution within context of problem
- e) Justify process and solutions
- f) Reflect upon process regarding efficiency, optional strategies, and additional uses

3. Graphs

- a) Identify graphs of basic equations/functions
- b) Graph basic graphs and their transformations

- c) Create equation/function from graph
- d) Identify basic characteristics including domain, range, areas where graph is increasing, decreasing or constant, extrema, intercepts, and minimum degree where appropriate

4. Applied Problems

- a) Analyze and interpret problem
- b) Select appropriate strategy
- c) Apply strategy and solve problem
- d) Check solution(s) for accuracy and reasonableness
- e) Interpret solution within context of problem
- f) Justify process and solutions
- g) Reflect upon process regarding efficiency, optional strategies, and additional uses

D. Use and Understand Exponential and Logarithmic Equations, Inequalities and Functions.

1. Classify an equation/inequality/function or system based on its characteristics

2. Solve Problems

- a) Select appropriate strategy
- b) Apply strategy and solve problem
- c) Check solution(s) for accuracy and reasonableness
- d) Interpret solution within context of problem
- e) Justify process and solutions
- f) Reflect upon process regarding efficiency, optional strategies and additional uses

3. Graphs

- a) Identify graphs of basic equations/functions
- b) Graph basic graphs and their transformations
- c) Create equation/function from graph
- d) Identify basic characteristics including domain, range, areas where graph is increasing, decreasing or constant, extrema, intercepts, and minimum degree where appropriate

4. Applied Problems

- a) Analyze and interpret problem
- b) Select appropriate strategy
- c) Apply strategy and solve problem
- d) Check solution(s) for accuracy and reasonableness
- e) Interpret solution within context of problem
- f) Justify process and solutions
- g) Reflect upon process regarding efficiency, optional strategies, and additional uses

Outcomes Assessment

To achieve the course learning outcomes, students will be expected to complete classwork, assignments, chapter quizzes and tests, and the final exam. The final exam will be the summative assessment tool used to measure whether students have achieved the course learning outcomes.

- ASSIGNMENTS – homework and assignments will be given every day and are due within three days by 11 p.m. Homework will only be accepted until the day of the test in which the material is on.
- TESTS – dates for each chapter test can be found in Moodle. Please make sure you contact me, prior to being absent, if you are going to need to schedule a make-up time for a test.
- QUIZZES – are assigned for every chapter and must be completed within three days. Quizzes will only be accepted until the day of the corresponding chapter test.
- FINAL EXAM– will be given in two parts on April 30th and May 1st during our regular class time. This will be a cumulative final exam at the end of the year.

Grading Policy

Students are expected to prepare for class, participate in class, complete assignments, quizzes, the signature assignment, all chapter tests, and complete the comprehensive final exam. A student must pass the final exam with 60% or greater to receive a C or better for the course. This means that if a student fails the final exam, the student will earn either a D or an F for the course.

Your overall grade for the course will be calculated using the following weights and categories:

Category	Weight
Assignments	15%
Quizzes	25%
Class Participation/Classwork	5%
Chapter Tests	35%
Final Comprehensive Exam	20%
TOTAL: 100%	

Letter grades will be determined as follows:

A:	90-100%
B:	80-89%
C:	70-79%
NC:	60-69%
NC:	59% or below

Grades can be found in PowerSchool and will be updated frequently throughout the week and after each exam is taken. The format of this course is a traditional in person class with individually graded assignments to be completed in composition notebooks or Derivita.

Per departmental policy, a student must earn at least 60% on the common final exam to be eligible to pass the class with a grade of C or better. Students whose overall average is 70% or better after failing the common final, will be given a letter grade of D and will be offered the opportunity to take a challenge exam.

- Challenge Exam: This exam is available for a limited time after the end of the semester. Students who can earn a 60% or better on the challenge exam will have their grade changed from the D given based on the departmental policy to the letter grade that matches their *original* semester average. Students eligible for this challenge opportunity will be notified by their instructor of their eligibility along with details regarding dates of availability and the timeframe for grade changes. Please note: This opportunity is not available to all students who fail the final exam. It is only available to students who fail the final exam whose semester average stays at 70% or above after having done so.

Concepts expressed in the classroom are for educational purposes, and a student's adherence to any belief system will not be used as evaluative criteria.

Textbooks and Required Materials

The textbook for the course is Algebra & Trigonometry: Graphs and Models, Sixth Edition, by Bittinger, 2017.

- A scientific calculator is needed for this course.
- Composition notebook or a three-ring binder for homework and assignments.

Instructional Conversation

Learning is an active exchange between faculty and student.

As a faculty, I will:

- Instruct through direct instruction and conduct regular weekly office hours.
- Assess through grading coursework which will provide you with feedback.
- Inform through information on course content and answer questions on course content.
- Facilitate through discussions about the course content via whole class and small group interactions.
- Periodically meet one on one to discuss assignments.

As a student, you will:

- Attend class lectures and office hours when needed.
- Submit assignments and exams on time.
- Participate by asking questions when you have them.
- Interact with instructor and classmates via study groups, classroom and/or online discussions.

Course Expectations

- The average student can expect to spend an average of approximately 450 minutes or 7.5 hours per week in this class to earn an average grade. This includes 245 minutes with me and 205 minutes of independent work (reading course materials, studying, completing assignments, etc.) Some students may need more time, and some may need less time each week. Please make sure that you are spending the right amount of time that is right for you to be successful in this class.
- The due dates for every assignment, quiz, and chapter test can be found in Moodle (accessible through MTCHS website). Any assignment that is not submitted on time can be turned in for late credit up to 2 days later.
- Students are not permitted to use cell phones or internet devices during exams.
- In-class activities, homework and tests will be returned within 7 days after submission. In the case of tests, if you have not made up the test prior to me returning it, you will NOT be allowed to make it up. Contact me immediately to arrange a make-up.
- You may have water in the class, but please do not eat during class time. The smells and sounds can be distracting to fellow students.
- Complete end of course evaluation.

Academic Engagement (Attendance) Prior to Census

CWI must verify that students have met academic engagement prior to census to confirm that students are active in their courses. Academic engagement is active participation by a student in an instructional activity such as attending class, submitting an assignment, participating and/or completing online activities, or one-on-one interactions with the instructor. In this class, my primary tool in verifying academic engagement is in-class attendance. If you are having difficulty meeting this expectation, it is critical that you contact me as soon as possible to complete the required seat time. Daily class time is **49 minutes with an expected homework time of 31 minutes outside of class**. CWI requires 7.5 hours per week (16-week semester class) for a 3-credit college course. MTCHS equivalent seat time is 80 minutes per day for a total of 90 days to meet the same college level standard. Our class exceeds the seat time expectation as set by CWI.

Personal Technical Skills

This course will not provide information on how to use a computer, use Moodle, navigate the web, or manage electronic files. Students who are having difficulty should contact their instructor or get help from our Information Technology person.

Students must be able to do the following with or without accommodation:

- Use an internet browser to navigate the internet and Moodle.
- Download, upload, create, save, edit, and open documents using Microsoft Office applications, such Word, Excel and PowerPoint.
- Download and upload audio and video files.

Civility and Behavioral Expectations

The College of Western Idaho is committed to educational excellence and recognizes that to achieve that excellence, students, faculty, and staff have a right to be in a safe environment, free of disturbance and civil in all aspects of human relations. Membership in the CWI learning community places a special obligation on all members to preserve the safe learning environment, regardless of the medium of the environment. It is the responsibility of instructors to determine, maintain, and enforce the standards of behavior required to preserve that safe environment.

Behavior that has a negative impact on the learning environment is prohibited. Such behavior may include, but is not limited to, rude, sarcastic, obscene, or disrespectful and/or disruptive behavior. Instructors will determine the appropriate response to problematic behavior in line with the procedures stated in the CWI Student Handbook. Problematic behavior may result in a student being removed from the class session and/or referred to the CWI Academic Conduct Process. For information on how problematic behavior will be managed, see the [CWI Student Handbook](#). It is the student's responsibility to check their email to receive notification of any scheduled appointments or other urgent communications.

Any student or other member of the learning community may report a violation of the Student Code of Conduct [here](#).

Academic Integrity

One of the College's Core Themes is Instructional Excellence, and in order to achieve Instructional Excellence, academic integrity must be upheld. Academic Integrity is the "commitment to six fundamental values: honesty, trust, fairness, respect, responsibility, and courage. ... communities flourish when community members "live" the fundamental values ... consider and discuss the role of ethical values and their ability to inform and improve various aspects of life on and off campus" ([The Fundamental Values of Academic Integrity](#), 2019). These values are especially important in how students represent their own learning, ideas, and work. Practicing academic integrity includes, but is not limited to, non-participation in the following behaviors: cheating, plagiarism, falsifying information, unauthorized collaboration, facilitating academic dishonesty, collusion with another person or entity to cheat, submission of work created by artificial intelligence tools as one's own work, and violation of program policies and procedures.

For additional information on academic integrity expectations, see the Student Code of Conduct. Violations may result in disciplinary action ranging from failure of the assignment to failure of the entire course. Acts of academic dishonesty, especially when sanctions are given, are reported and run through the Academic Conduct Process. Repeated acts of academic dishonesty have more severe institutional consequences.

Title IX & A Respectful Community

Title IX guarantees all students the right to an education free from discrimination on the basis of sex. This includes the right to an education free from sexual harassment, including sexual assault. This may include unwelcome conduct of a sexual nature in class, or in online discussion boards or through chat or video conferences. This law also protects students from discrimination based on pregnancy or being a parent and provides support options as well. If you, or someone you know, may have experienced sexual harassment or discrimination of any kind, you are encouraged to report it to the College Title IX Coordinator by completing a [report here](#), or by e-mailing respectfulcommunity@cw.edu. Filing a report allows the College to provide supportive measures to those involved. It does not obligate a student to go forward with an investigation, and all information reported is protected under federal law. For more information, [click here](#).

Student Services

CWI provides a number of offices and services to assist students on their academic journey. Below is a list of the services most commonly accessed by students:

- [One Stop Service Centers](#): Provides assistance with admissions, advising, registration, financial aid, and most other common needs you may have. They are a good first stop for any questions.
- [Student Disability Services](#) – Provides accommodations and support for students with a range of disabilities.

- [Counseling Services](#): Short-term counseling for students provided free of charge.
- [Library & Research Support](#): Assists students with research, study skills, textbook reserves and other services key to academic success.
- [Tutoring Center](#): Free tutoring services on a range of academic subjects, available to all enrolled students.
- [Writing Center](#): Provides strategies to help students identify opportunities to improve the quality of their writing, free of charge.
- [Assessment & Testing](#): Proctoring services for a range of course exams, accommodated testing, and outside certification tests.
- [Student Affairs](#): Provides a range of engagement opportunities, including professional and interest organizations, student government, support for veteran students & families, and CARE Services to support students through unexpected life events.

Emergency Procedures

MTCHS practices evacuation in all rooms and encourages everyone on campus to review the posted instructions in room 108.

General Education Information

This course meets the Idaho State Board General Education Matriculation (GEM) course competencies for Mathematical Ways of Knowing courses. For more information see the [State Board competencies](#).

This course meets the CWI General Education Program Outcome of Solve Problems. For more information see the [CWI Gen Ed Program Outcomes](#).

Course Calendar

The course calendar can be found in Moodle along with the syllabus. This is a tentative schedule for the year and is subject to change. All changes will be announced in class, and it is your responsibility to track changes. Days shown in parenthesis provided the number of days for seat hour calculations for CWI.

Chapter	Start Date (Days)	Topics and Tests	Assignments
1	8/16/23 (3)	Syllabus and Orientation Just in Time concepts (Exponents, 9, 11, 12, 22)	Moodle contains assignments and due dates
1	8/21/23 (5)	Online Calculator Use and Just in Time Review Concepts 1.1 Introduction to Graphing 1.2 Functions and Graphs	
1	8/28/23 (4)	Functions and Graphs (continued) 1.3 Linear Functions, Slope and Applications	
1	9/5/23 (4)	Quiz 1.1 – 1.3 graphs, functions, slope, and applications 1.4 Equations of Lines and Modeling 1.5 Linear Equations, Functions, Zeros, and Applications	
1	9/11/23 (5)	1.5 Linear Equations, Functions, Zeros and Applications (continued) 1.6 Solving Linear Inequalities Chapter 1 Test Review C1 Test	
2	9/18/23 (4)	2.1 Increasing, Decreasing & Piecewise Functions; Applications 2.2 The Algebra of Functions Quiz and Test Results for C1 Desmos Activity	Moodle contains assignments and due dates

2	9/25/23 (5)	2.3 The Composition of Functions Quiz 2.1 – 2.3 Desmos Difference Quotient Activity 2.4 Symmetry 2.5 Transformations	
2	10/2/23 (4)	2.5 Transformations (continued) 2.6 Variations and Applications Review 2.4 – 2.6	
2	10/9/23 (4)	Calculator Regression Activity Chapter 2 Review C2 Test 3.1 The Complex Numbers	
3	10/16/23 (5)	3.2 Quadratic Equations, Functions, Zeros and Models C2 Test return and discussion 3.3 Analyzing Graphs of Quadratic Functions Review for Quiz 3.1 – 3.3	
3	10/23/23 (5)	Quiz 3.1 – 3.3 3.4 Solving Rational Equations (part 1) 3.4 Solving Radical Equations (part 2) 3.5 Solving Equations & Inequalities with Absolute Values Review 3.4 to 3.5	
3	10/30/23 (5)	Chapter 3 Review Chapter 3 Test 4.1 Polynomial Functions and Modeling	
4	11/6/23 (5)	4.1 Polynomial Functions and Modeling (continued) 4.2 Graphing Polynomial Functions 4.3 Polynomial Division: The Remainder Theorem (part 1) 4.3 Polynomial Division: The Factor Theorem (part 2)	
4	11/13/23 (4)	Review 4.1 to 4.3 4.4 Theorems about Zeros of Polynomials Review 4.1 to 4.4 – Mini Assessment	
	11/20/23 (0)	Thanksgiving Break 11/20-11/24	
4	11/27/23 (5)	Review 4.1 to 4.4 Quiz 4.1 – 4.4 4.5 Rational Functions 4.6 Polynomial Inequalities & Rational Inequalities	
4	12/4/23 (5)	Notebook Graphs Review of 4.5 Rational Functions 4.6 Polynomial Inequalities & Rational Inequalities Review Quiz 4.1 – 4.4	
4	12/11/23 (5)	C4 Test Review C4 Test Signature Assignment	
4	12/18/23 (5)	Signature Assignment Presentations C1-C2 Review Questions Personal Finance Activity	
	12/25-1/5/24	Christmas Break	
	1/9 - 1/26/24	Grade Level Projects	
5	1/29/24 (5)	5.1 Inverse Functions 5.2 Exponential Functions & Graphs Review 5.1 – 5.2	
5	2/5/24 (5)	5.3 Logarithmic Functions & Graphs 5.4 Properties of Logarithmic Functions Review 5.3 – 5.4	
5	2/12/24 (4)	5.5 Solving Exponential Equations & Logarithmic Equations 5.6 Applications & Models: Growth & Decay; Compound Interest Chapter 5 Test	

9	2/19/24 (4)	9.1 Systems of Equations in Two Variables 9.2 Systems of Equations in Three Variables	
9	2/26/24 (5)	Review 9.1 – 9.2 Quiz 9.1 – 9.2 9.7 System of Inequalities & Linear Programming	
9	3/4/24 (4)	Review C9 C9 Test Linear Programming Project or Real-World Logarithm Project	
	3/11-3/15	Trigonometry Concepts	
	3/18-3/22/24	Spring Break	
	3/25-4/5/24	Trigonometry Concepts	
	4/15-4/25/24 (10)	C1, C2, C3, C4, C5, C9 Review Concepts	
	April 30 th & May 1 st (3)	Final Exam – April 30th AND MAY 1st (TOTAL OF 20 QUESTIONS)	Graded by May 3rd
		Grades available in myCWI on Fri. May 17	

Affidavit of Syllabus as Contract

Student has read and understands the content in this syllabus.