

Math 100B, Introductory Algebra Fall, 2022

Instructor: Dave Wylie

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Classroom: Samuelson 105

Meeting Times: M-F 12pm-12:50pm

Office: Samuelson 228A

Office Hours: M-F 9am-9:50am

Text: Elementary Algebra 2e <https://openstax.org/details/books/elementary-algebra-2e>
Algebra and Trigonometry <https://openstax.org/details/books/algebra-and-trigonometry>

Math is a skill. The best way to learn math is by working math problems. We will be going over examples in class, working in groups during class and there will be homework for each section.

Recommended Materials: Calculator (Graphing Calculator T183-84, if moving on to Intermediate Algebra and Pre-Calculus), one 80-100 page spiral or hardbound notebook with graph or lined paper, pencils, erasers.

Course Description: This course is designed to prepare students for college-level mathematics by reinforcing algebraic skills and concepts. Symbolic, graphical, and numeric representations will be studied to understand how the concepts of algebra make sense, connect, and are applied in real life situations. Credits will not be allowed toward meeting bachelor's degree requirements.

Prerequisites: ALEKS score of 30-44 or successful completion of MATH 100A

Math Mission Statement: In support of liberal education, scientific careers, teacher preparation, and actuarial science, the mathematics department prepares students for quantitative and symbolic reasoning and advanced mathematical skills through general education, service, major and graduate programs.

Course Rationale: This course reinforces Algebraic skills and concepts. Modeling through numerical, graphical and traditional algebraic approaches will be used to give students an understanding of these concepts. An inquiry based-approach will be used to understand how the concepts of algebra make sense, connect, and are applied in real life situations. This type of application and understanding is meant to prepare students for future math classes and field of study.

Successful Completion: To advance to future courses, you must earn a C or better in the course work and complete the Budget Project. This class does not count towards degree requirements or GPA.

Grading: This course is standards-based. Grades will be issued based on the number of standards passed. Passing grades will be based on two criteria:

1. Meeting at least 12 Standards
2. Completion of Budget Project (score of 80+)

Grading Scale:

Standards met	16	15	14	13	12	11	10	9 or less
Grade	A	A	B+	B-	C	D+	D-	F

Student learning outcomes: Students who successfully complete this course will be able to show mastery on a set of mathematical tasks called standards.

There are a total of 16 standards that will be assessed throughout the term; 13 of which are based on course content, 3 of which are based on participation within the course (Homework, Attendance, and the Budget Project). To show mastery of a topic, students must meet the Standard requirements.

Exams: Each Standard must be passed by showing mastery on a standards exam. Standard exams must be passed with a score of 80% or better. Students will be allowed to retake standards throughout the quarter.

Cheating: All work on tests must be your own. Giving or receiving aid during a test will result in a penalty ranging from no credit on the question to failing the class. You may work with others on homework.

Project: You must receive a score of 80% or higher on the project to pass the course. You will be expected to do a majority of the work outside of class and can begin work anytime. Your project will be presented to the class as a gallery walk. Your peers will be able to view your project. It will be important that your work is clear and concise.

Homework Advice: Homework is assigned to you so you have enough practice to master concepts and help you to retain important information and make connections between concepts and ideas we discuss in class. You will be successful if you attend class consistently, take notes and complete your daily homework. Doing a little every day in manageable pieces, will help you to build good habits and recognize difficulties you have early on. You might find that you benefit from talking through the material with one or more classmates. If this is the case, you might consider forming a study group. If you regularly participate in a study group, you must ensure that you understand and can complete the content independently because your study group will not work with you on tests. Homework is due on standard test day, but the expectation is that it will be completed on a daily basis following the lessons in order to strengthen understanding of the material.

Having Trouble: There may come a time in this or other classes where you find yourself stuck and struggling to understand the material. Note that this is something that happens to everyone, and when/if happens to you, you have several options:

- Ask a classmate or friend
- Visit the drop-in tutoring area at the University Math Center in Brooks Library
- Online Tutoring provided through the Math Center
- Come to my office hours for assistance
- Attend a PAL session
- Visit the Math Department tutoring

Learner Outcomes: Upon successful completion of this course, the student will be able to show mastery of the following learning standards:

All sections are from Elementary Algebra 2e unless noted (AT) for Algebra and Trigonometry.

Standard 1: Operations

Sections: 1.2, 1.2, 1.3, 1.4

Standard 2: Fractions

Sections: 1.5, 1.6

Standard 3: Decimals and Real Numbers

Sections: 1.7, 1.8, 1.9

Standard 4: Linear Equations

Sections: 2.1, 2.2, 2.3, 2.4

Standard 5: More Linear Equations/Inequalities

Sections: 2.5, 2.6, 2.7

Standard 6: Applications

Sections: 3.1, 3.2, 8.7

Standard 7: Graphing

Sections: 4.1, 4.2, 4.3

Standard 8: Slope

Sections: 4.4, 4.5

Standard 9: Functions and Rate of Change

Sections: 3.1(AT), 3.2(AT), 3.3(AT)

Standard 10: Find Equations and Graph Inequalities

Sections: 4.6, 4.7

Standard 11: Systems of Equations

Sections: 5.1, 5.2, 5.3

Standard 12: Applications and Graphing of Systems

Sections: 5.4, 5.6

Standard 13: Polynomials

Sections 6.1, 6.2, 6.3, 5.1(AT)

Standard 14: Homework

Standard 15: Attendance

Standard 16: Budget Project

In order to meet the requirements for:

Standards 1-13: Students must show mastery of course content standards by passing the standard assessment with a score of 80% or higher.

*Students may retest on the standards if their first attempt was not successful within two weeks of the original scheduled assessment, one attempt per day. Students may retake standards up to a maximum of three times.

Standard 14: Students must obtain at least 80% as an average score on all assigned homework.

Standard 15: Students must attend at least 80% of class sessions for the entire class.

Standard 16: Students must obtain at least 80% on the Budget Project. Passing the Budget Project is a requirement for passing the class.

Teacher Expectations:

- *Be on time for each class session
- *Be prepared (have necessary materials, complete homework and assignments)
- *Be present (show active listening, focus on class happenings, keep cell phones away)
- *Be active (participate in discussions and activities, ask questions)
- *Be your best (put forth your best effort, ask if unsure, try, try, try)
- *Be respectful (treat others as you want to be treated in discussions, projects, presentations, question & answer sessions)

Disability Resources Statement: Central Washington University is committed to creating a learning environment that meets the needs of its diverse student body. If you anticipate or experience any barriers to learning, discuss your concerns with your instructor. Students with disabilities should contact Disability Services to discuss a range of options to removing barriers, including accommodations. Student Disability Services is located in Hogue 126. Call (509) 963.2214 or email ds@cwu.edu for more information.

Faith/Tradition Observances Policy: In compliance with RCW 28B.137.010, Central Washington University makes every effort to deal reasonably and fairly with students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. Students must present written notice to their instructor within the first two weeks of class listing the specific dates on which accommodations are required. Contact the Dean of Student Success at (509) 963 – 1515 for further information or questions.

Changes: I reserve the right to make changes to this syllabus. If changes are made I will announce them in class and through Canvas.