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Required Text & Materials: *Using and Understanding Mathematics*, Seventh Edition, Bennett & Briggs, Addison Wesley  
Subscription to MathXL (via [www.MathXL.com](http://www.MathXL.com)) for online homework and quizzes. Inclusive Access provides an electronic copy of the text and access to MathXL at low cost. Enrollment in Inclusive Access is automatic unless you opt out.

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#### COURSE DESCRIPTION:

*Math in the Modern World* takes a practical view of mathematics, stressing the application of mathematics over the development of abstract mathematical concepts. The focus of the course is on developing critical thinking and quantitative reasoning skills which we will develop through traditional homework sets and more investigative projects.

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COURSE GOALS: The basic goals of Math 101 include:

- ▷ Becoming familiar with techniques from many branches of mathematics
  - ▷ Developing the ability to analyze quantitative information critically
  - ▷ Investigating real-world problems creatively
  - ▷ Understanding the connections between various mathematical methods
  - ▷ Using technology to help solve problems, experiment, interpret results and verify conclusions
  - ▷ Determining the reasonableness of solutions
  - ▷ Appreciating that the procedure for solving a problem is as important as the answer
  - ▷ Communicating knowledge in both everyday and mathematical language
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#### PROBABLE COURSE TOPICS:

- ▷ Numbers in the Real World: Percentages, scientific notation, rounding
  - ▷ Statistical Literacy: Creating, using, and interpreting tables and graphs
  - ▷ Managing Money: Simple interest, compound interest, savings, loans & payments
  - ▷ Modeling: Linear, exponential, and logistic functions, population growth
  - ▷ Voting Theory: Apportionment, fairness, and voting schemes
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COURSE EXPECTATIONS:

As a student in this online course, you can expect:

- Collected assignments to be graded and returned at a reasonable pace. Homework done through MathXL will provide instant feedback.
- Response to email within 24 hours (usually much less!) Monday to Friday. I will also respond to email on weekends, although less frequently.

As a student in this online course, you will be expected to:

- Devote enough time to the course to succeed. Remember this is a 5-credit course.
- Be proactive in seeking help when needed.
- Complete all assignments on time and to the best of your ability.
- Notify the instructor of any circumstances impeding your success.
- Adhere to Central Washington University's Student Judicial Code, particularly the section on Proscribed Conduct and Academic Dishonesty.

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COURSE STRUCTURE:

As an asynchronous online course, the content will be delivered through Canvas and Pearson's MathXL. There is no assigned time for this class. Your obligations will include the following tasks:

- Read the appropriate section(s) of material from the text.
- Watch the recorded lesson/PowerPoint. Pause the recording to work through examples where indicated and check your understanding.
- After the lesson, work through the worksheet on your own.
- Assess your work on the worksheet by comparing your work to the solution.
- Complete the assigned homework on MathXL.
- If you need help with any of the homework problems, email me. There is a 'Contact the instructor' button in MathXL that will link me directly to the problem in question. I will either handle the questions individually, or I will post a solution on Canvas, depending on how many students are having similar issues.

There will also be quizzes & tests administered through MathXL, and three written projects to be done individually during the quarter.

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GRADING:

Homework (MathXL):	165 points	Percentage	Grade range
Quizzes (MathXL):	60 points	90 - 100%	A- or A
Tests (MathXL):	200 points	80 - 89.9%	B-, B, or B+
Projects:	120 points	70 - 79.9%	C or C+
		60 - 69.9%	D
		0 - 59.9%	F

## HOMEWORK:

Daily homework is an integral part of this course. You are responsible for keeping up with the assigned homework on MathXL, and for seeking help when needed. In order to help you master the material, you have unlimited attempts for each homework problem. If you are having difficulty with the homework problems, contact the instructor or take advantage of MathXL's built in help features. The 16 homework sets are worth a total of 160 points, and the orientation assignment is worth 5 points.

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## QUIZZES:

There are three quizzes during the course, administered through MathXL. These cover only a few sections of material each. You are allowed two attempts on the 60-minute quizzes, so take notes on any problems you've missed and try again. Unless other arrangements have been made, quizzes must be taken on the day specified on the course schedule: Tuesday 10/4, Friday 10/21, and Monday 10/31. The three quizzes are worth 20 points each.

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## TESTS:

There are four tests administered through MathXL that assess the concepts in an entire chapter (or two partial chapters) of material. As these are summative assessments, you are allowed only one attempt at each 90-minute test, scheduled on Thursday 10/13, Wednesday 11/2, Wednesday 11/16, and Thursday 12/1. The tests are worth 50 points each.

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## FINAL EXAM (OPTIONAL):

The final exam will take place on Tuesday, 12/6. This exam is cumulative, covering the sections that we studied from Chapters 3, 5, 4, 8, and 12. **The final is optional;** your score on the final exam will replace your lowest test score.

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## PROJECTS:

There are 2 written projects and a mini-project to be done individually, in which you will delve more deeply into real-world applications of the course content. Grammar, spelling and professional presentation count. These projects are significant assessments of your progress toward the goals of the course.

The first two projects have two phases: an activity through Canvas that helps you make sense of the mathematics for the project, and then the writing of the project itself. The activity counts for 10% of the project grade, so don't skip that part. I encourage you to visit the CWU Math Center for help on the math, or the CWU Writing Center for help with the writing as you see fit. The final project report for these first two projects is to be presented as a written paper, with an introduction, body, and conclusion, and proper grammar used throughout. The first two projects are worth 50 points each. The final 'mini-project' can be presented as complete answers to a series of questions (instead of in the format of a written paper), and is worth 20 points.

	<u>Project #1</u>	<u>Project #2</u>	<u>Mini-Project #3</u>
Assigned:	T. 10/11	F. 10/28	T. 11/15
Due:	T. 10/25	M. 11/14	T. 11/22
Total points:	50	50	20

**Late policy:** Projects will be accepted up to 5 days late with a penalty of 5 points per day. The mini-project will be accepted up to 2 days late with a penalty of 5 points per day.

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#### MENTAL AND EMOTIONAL HEALTH AND SUPPORT:

Stress and other life circumstances that may be out of your control can make learning and focusing difficult. If you find stress or other mental health concerns make academics difficult, Central has resources to support you. I encourage you to reach out as soon as you notice you're struggling.

- Student Counseling Services: Crisis appointments are available. Call 509-963-1391  
[www.cwu.edu/medical-counseling/counseling-clinic](http://www.cwu.edu/medical-counseling/counseling-clinic)
- Mental health crisis support outside of normal business hours: Call 1-800-273-8255 or Text HOME to 741741
- Wellness Center: Confidential sexual assault and other victim advocacy. Call 509-963-3213 or visit [www.cwu.edu/wecare](http://www.cwu.edu/wecare), [www.cwu.edu/path](http://www.cwu.edu/path)

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#### DISABILITY SERVICES:

Central Washington University is committed to creating a learning environment that meets the needs of its diverse student body. Students with disabilities should contact Disability Services to discuss a range of options to removing barriers, including accommodations: Hogue Hall 126, 509.963.2214, [DS@cwu.edu](mailto:DS@cwu.edu).

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#### ACCOMMODATION FOR RELIGIOUS OBSERVANCES:

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.

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#### STATEMENT ON DIVERSITY:

CWU expects every member of the university community to contribute to an inclusive and respectful culture for all in its classrooms, work environments, and at campus events. As a student in this course, you are expected to treat your professors, fellow students, and other people affiliated with your work at CWU with respect, regardless of their sex, race and color, religion and creed, national origin, sexual orientation, gender identity and gender expression, disability and use of assistive devices or a service animal, and veteran or military status.

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#### ACADEMIC HONESTY:

Consult university policies (CWUP 5-90-040(22), CWUR 2-90-040(22), and WAC 106-125-020) for student conduct, cheating, plagiarism, and other academic expectations. CWU's policies and recommendations for academic misconduct will be followed, leading to disciplinary action up to and including failing the course. See <https://apps.leg.wa.gov/WAC/default.aspx?cite=106-125> and <https://www.cwu.edu/resources-reports/cwur-2-90-040-academic-and-general-regulations#Grade%20Appeals>

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#### EXPECTATIONS FOR STUDENT CONDUCT:

Students in this class are expected to interact with students and the professor professionally. Instances of disruptive conduct, obstructive conduct, or harassment (see definitions below from the Washington Administrative Code) will be referred to the Dean of Student Success.

Per WAC 106-125-020, the term “disruptive” or “obstructive” conduct means conduct, not protected by law, that interferes with, impedes, or otherwise unreasonably hinders the normal teaching, learning, research, administrative, or other functions, procedures, services, programs, or activities of the university. The term includes disorderly conduct, breach of the peace, violation of local or university noise policies, lewd or obscene conduct, obstruction of pedestrian or vehicular traffic, tampering with student election processes, or interfering with the orderly conduct of university investigations or disciplinary proceedings, including interfering with or retaliating against any witness, party, or other participant.

The term “harassment” means unwelcome and offensive conduct, including verbal, nonverbal, or physical conduct, that is directed at a person because of such person’s protected status and that is sufficiently serious as to deny or limit the ability of a student to participate in or benefit from the university’s educational program, or that creates an intimidating, hostile, or offensive environment for any campus community member(s). Protected status includes a person’s actual or perceived race, color, national origin, gender, disability, or other status protected by law.