

Professor: Dr. Chris Black
Office: HEC #268, Des Moines Center
Office Hours: By arrangement
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Required Text: *Using and Understanding Mathematics*, Sixth or Seventh Edition, Bennett & Briggs, Addison Wesley

Required Materials: Graphing calculator, such as a TI-83+ or TI-84.
Subscription to MathXL (via www.MathXL.com) for online homework and quizzes. There is no course ID needed to enroll in MathXL. You must purchase access either bundled with your text or separately from Pearson.

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.

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 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 and interpreting tables and graphs
 - ▷ Managing Money: Interest, compounding, 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 (or less!) Monday to Friday, unless I am travelling which may occur during the quarter. 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 *immediately* of any circumstances impeding your success.
- Adhere to Central Washington University's Student Judicial Code, particularly the section on Proscribed Conduct and Academic Dishonesty.

COURSE STRUCTURE:

As an online course, the content will be delivered through Canvas. 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 three written projects to be done individually during the quarter, 3 quizzes, 4 chapter tests, and a final exam (described below).

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. The homework sets will open up a week before the date on the schedule, allowing you to work a little bit ahead in the course. In order to help you master the material, you have unlimited attempts for each homework problem. Homework can be submitted after the due date for 50% credit. 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 170 points.

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 them again. Quizzes must be taken **on the day specified on the course schedule**: Tuesday 1/21, Thursday 2/6, and Thursday 2/13. The three quizzes are worth 20 points each.

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 **on the day specified on the course schedule**: Thursday 1/30, Tuesday 2/18, Monday 3/2, and Thursday 3/12. The tests are worth 50 points each.

FINAL EXAM:

The final exam will take place on Tuesday, 3/17, also administered through MathXL. This exam is cumulative, covering the sections that we studied from Chapters 3, 5, 4, 8, and 12. The final is worth 50 points AND can replace your lowest test or quiz score.

PROJECTS:

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

Because it's unlikely that you've done much mathematical writing, you are required to consult with a writing tutor at the CWU Learning Commons on the written projects. For the first two projects, you will receive feedback from the Writing Center on a first draft of your project report, and you will incorporate this feedback into your final submitted version. Five points (10% of the grade) will be awarded for the consultation with the Writing Center. The final version will then be assessed according to the project rubric, out of 45 points. The third mini-project is worth 20 points.

	<u>Project #1</u>	<u>Project #2</u>	<u>Mini-Project #3</u>
Assigned:	T. 1/28	F. 2/14	F. 2/28
Meet with consultant:	1/28 – 2/7	2/14 – 2/25	(not required)
Final version due:	M. 2/10	Th. 2/27	F. 3/6
Total points:	50	50	20

Note: Since 10% of the grade of the first two projects depends on arranging a consultation with the Writing Center, be sure that you allow yourself enough time to secure an appointment. **DO NOT PROCRASTINATE ON YOUR FIRST DRAFT.**

Late policy: Projects #1 & #2 will be accepted up to 5 days late with a penalty of 5 points per day. Mini-Project #3 will be accepted up to 2 days late with a penalty of 5 points/day.

GRADING:

Homework (MathXL):	170 points
Quizzes (MathXL):	60 points
Tests (MathXL):	200 points
Final Exam (MathXL):	50 points
Projects:	120 points

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>

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.

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.

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 identify and gender expression, disability and use of assistive devices or a service animal, and veteran or military status.

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.