

Central Washington University

Course title and number:

Math 101-001

Course offered: Spring 2016

Credits: 5 credit hours

Instructor contact information: Dr. Frank Underdown Jr.; Cell# 509-989-5533 (please, no call after 9:00 pm); email:Contact me through Canvas

Course time & place: MoTuWeThFr

Math 101-001: 08:00 – 08:50am, Bouillon Hall 102

Note(s):

- 1) I will upload additional course materials to Canvas
- 2) You will also be able to communicate with me via Canvas.

Office: Black Hall room 225-34

Office hours: 10:00-11:00am Mon – Fri

If you cannot make these office hours, make an appointment to see me.

Textbook: Using & Understanding Mathematics: A Quantitative Reasoning Approach, 6th ed, by Bennett & Briggs

Course Content:Required chapters 3, 4, and 8. We will cover additional material as time allows.

Equipment: Scientific calculator and computer

CATALOG DESCRIPTION: Selected topics from the historical development and applications of mathematics together with their relationship to the development of our present society.

PREREQUISITE: either at least 500 on the SAT, 19 on the ACT, a Compass test score of either 50-Pre-Algebra, 26-Algebra, 31-College Algebra, or 31-Trigonometry, or completed MATH 100B or a higher level math class.

Purpose of course:

Math in the Modern World is mathematics for students who want a better understanding of the real-life mathematics that all people face. It is especially designed for those who have struggled with mathematics in the past. The course stresses the application of mathematics to personal and social issues, rather than stressing the abstract ideas found in many mathematics courses. This course is designed to prepare students to function in real-life situations involving quantitative data. Basic course

goals include:

- 1) Becoming familiar with techniques from many branches of mathematics.
- 2) Developing the ability to analyze quantitative information critically.
- 3) Investigating real-world problems creatively.
- 4) Understanding the connections between various mathematical methods.
- 5) Using technology to help solve problems, experiment, interpret results and verify conclusions.
- 6) Determining the reasonableness of solutions.
- 7) Appreciating that the procedure for solving a problem is as important as the answer.
- 8) Communicating knowledge in both everyday and mathematical language. (DT)

OUTLINE OF COURSE:

This is the intended schedule for the class. My plan is to cover a chapter per week. However, it is not unusual to be a day or so behind or ahead of this proposed schedule, but we will cover the material in this order.

Week 1: Introduction; orders of operation; review basic math; and Scientific Notation part I (large 7 small numbers)

Week 2: Numbers in the real world (Chp 3) **Quiz 1**

Week 3: Numbers in the real world

Week 4: Managing Money (chap 4) **Quiz 2**

Week 5: Managing Money (chp 4)

Week 6: Log Functions **Quiz 3**

Week 7: Exponential functions (chap 8)

Week 8: Modeling Our World (chp 9), **Quiz 4**

Week 9: TBA

Week 10: Review **Quiz 5**;

Final Exam: Comprehensive final exam over all the material you have learned during the term.

IMPORTANT DATES:

March 29, , Classes Begin

May 30, Memorial Day, no classes

June 3, Classes End, Last Day of Instruction
June 6-9, Final Exam week
June 14, Grades due

POINT OF CONTACT

Please make sure I have a way to contact you, via your email and phone number.

Also you may want to exchange phone numbers and email with your fellow students to form study groups.

FLIPPED CLASSROOM APPROACH TO EDUCATION.

I use a **modified flipped classroom** approach to teaching. This has proven to be a very successful approach to teaching and learning. The definition of the flipped class follows:

The **flipped classroom** is a pedagogical model in which the typical lecture and homework elements of a course are reversed. Short video lectures are viewed by students at home before the class session, while in-class time is devoted to exercises, projects, or discussions.

For more information on this method of instruction, see the book: **Flip Your Classroom** by Jonathan Bergmann and Aaron Sams.

Logistic of the Course

- 1) In class I will try to limit my lectures to 20 min.
- 2) After the lecture, you will be given worksheet in class to apply what you have learned. This way, I can help you with in trouble you are having before you leave the classroom.
- 3) Preparation for each day consist of watching short videos or a reading assignment on the topic we will discuss the following day.
- 4) Worksheets that you do not finish in class will be considered homework to be completed at home.

Why a flipped classroom?

This has proven to be the most successful model of education. The majority of my students earn As and Bs in my course.

In generally, students who do not do well, have not applied themselves in course: Did not watch the videos, did not due the worksheets and/or homework, did not do the assigned/suggested reading

etc. Some students walk out of class after the short lecture and never benefit from doing the worksheet in class. **All of this sets them up to receive a bad grade at the end of the term.**

HOW TO BE SUCCESSFUL IN THE COURSE

The following is a list of what you can do to be successful in the course:

- 1) Come to class every day ready to learn
- 2) Watch assigned videos
- 3) Do worksheets and or homework
- 4) Get help early in the course if you are having trouble:
 - a) Ask questions in class
 - b) Take advantage of my office hours
 - c) Go to the math help center
 - d) Work in study groups

ASSESSMENT METHODS AND GRADING SCALE

Your grade will be based on the following(it is a weighted average):

Homework 25%

Quizzes 50%

Final exam (project) 25%

The grading scale follows:

94-100/A/4.0	80-83/B-/2.7	67-69/D+/1.3
90-93/A-/3.7	77-79/C+/2.3	64-66/D/1.0
87-89/B+/3.3	74-76/C/2.0	60-63/D-/0.7
84-86/B/3.0	70-73/C-/1.7	below 60/F/0

ATTENDANCE POLICY

You can attend or not attend at your own discretion. However, If you don't attend, you will not be able to pass the exams

ACADEMIC HONESTY

As members of the Central Washington University learning community, students are not to engage in any form of academic dishonesty. Forms of academic dishonesty include, but are not limited to, plagiarism, cheating, fabrication, grade tampering, and misuse of computers and other electronic technology. Students who engage in academic dishonesty may receive an academic penalty or a disciplinary penalty or both. The disciplinary consequences of engaging in any form of academic dishonesty include reprimand, probation, suspension, and dismissal. A student who knowingly helps or

attempts to help another individual to violate the University's policy on academic honesty also may be subject to academic as well as disciplinary penalties.

SEXUAL HARASSMENT/EQUITY/DIVERSITY STATEMENT.

Example: As your instructor, I am committed to creating and sustaining a safe and inclusive environment for learning. I expect you, as students, to share this commitment with me as we have a shared responsibility to treat each other with dignity and respect. Mutual respect and nondiscrimination includes freedom from sexual harassment. CWU policy defines sexual harassment as unwelcome, sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature under particular conditions. Title IX considers sexual harassment to be a form of discrimination. If you experience sexual harassment, or know someone who is being sexually harassed, you are encouraged to report concerns to me, another faculty member or employee, or to Gail Farmer, Equal Opportunity, at [509-963-2206](tel:509-963-2206), farmer@cwu.edu, Bouillon 205. Complete policies are available online at www.cwu.edu/hr.

DISABILITY STATEMENT:

Example: Students who have special needs or disabilities that may affect their ability to access information or material presented in this course are encouraged to contact me or the Center for Disability Services (cds@cwu.edu, 963-1202, Bouillon 140).

NECESSARY ADJUSTMENTS TO THE COURSE

I reserve the right to change the content or structure of the course as necessary to improve your learning experience. I will announce in class and in writing (announcements in Canvas) any changes that I make to the syllabus.