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Fall 9-1-2020

### M 234.B01: Higher Mathematics for Elementary School Teachers

Ke Wu

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**M 234: Higher Mathematics for Elementary School Teachers**  
**Fall, 2020**

**Instructor:** Ke Wu

Email: [ke.wu@mso.umt.edu](mailto:ke.wu@mso.umt.edu)

**Class time:** M/W/F 12:00-12:50PM

**Class location:** Zoom:

<https://umontana.zoom.us/j/92710351127?pwd=NW42WEIKWmd5WEExETExtN2UwRkZZQT09>

Meeting ID: 927 1035 1127

Passcode: 223074

**Office hours:** M/W 11:00-11:50AM via Zoom

<https://umontana.zoom.us/j/92298256190?pwd=b1NmWIRYdm9zeUZRB2xzcz0JCank2QT09>,  
weekly reserved 30 minutes (scheduled by individual students), and by appointment

**Prerequisites:** Open to Elementary Education or (pre-ED) majors **only**, M132.

**Text:** Mathematics for Elementary School Teachers, 5th Edition, by Sybilla Beckmann

**Supplies:** A scientific calculator is recommended

**Course Agenda:** Chapters 7-9, 15, 16

**Learning Outcomes:**

1. Apply algebra in many forms (e.g., as a symbolic language, as generalized arithmetic, as a study of functions, relations, and variation) and use algebra to model physical situations and solve problems;
2. Explain proportionality and its invariant properties;
3. Apply number theory concepts and theorems, including greatest common factors, least common divisor, properties of prime and composite numbers, and tests for divisibility;
4. Represent, analyze and interpret data;
5. Simulate random events and describe expected features of random variation;
6. Distinguish between theoretical and experimental probability and describe how to use one or both to determine a probability in a given situation.

**Course Assignments:**

- (1) *Homework* is assigned and collected regularly.
- (2) *Four Tests*: Test 1 (chapter 7); Test 2 (chapter 8), Test 3 (chapter 9), Test 4 (Chapter 15)

- (3) *Final Exam* two options: You can take the final exam on **Monday, November 23rd, 8:00-10:00AM**. It will be comprehensive over the whole semester. Or, you can use the average performance of the best 3 of the 4 tests as your final exam performance.

### Grading distribution and scale:

The grading distribution will be approximately as follow:

Homework -----	50%
Tests -----	35%
Final exam -----	15%

### Grading scale:

93 – 100%	A	90 - 92%	A-		
87 – 89%	B+	83 - 86%	B	80 - 82%	B-
77 – 79%	C+	73 - 76%	C	70 – 72%	C-
67 – 69%	D+	63 - 66%	D	60 - 62%	D-
Below 60%	F				

### Administrative Policies:

**Grade:** You must earn a C- or better in this course to pass the requirement in the College of Education. You may change to CR/NC up to the last day of class and you will receive credit with a grade of D- or better. However, if you choose this option the grade can't be counted towards the College of Education requirement nor the UM graduation requirement.

**Digital Access:** Digital devices (like laptops and cell phones) are becoming increasingly important to success in college. In this course, you may need digital devices to access readings, complete and submit written assignments, complete online tests/exam, verify your attendance, take in-class polls, coordinate with other students regarding group projects, complete and submit group projects. I recognize that some students are unable to afford the cost of purchasing digital devices and that other students rely on older, more problem-prone devices that frequently break down or become unusable. I also recognize that those technology problems can be a significant source of stress for students. Given those challenges, I encourage students to contact me if they experience a technology-related problem that interferes with their work in this course. This will enable me to assist students in accessing support.

**Academic Honesty:** All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University.

**Students with Disabilities:** The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructor, and Disability Service for Students. If you think you may have disability adversely affecting your academic performance, and you have not already registered with Disability Services,

please contact Disability Services in Lommoason Center 154 or 406.243.2243. I will work with you and Disability Services to provide an appropriate modification.

***Grounds for Approving Petitions for Late Drops:*** According to the University catalog, some examples of documented circumstances that may merit approval are accident or illness, family emergency, or other circumstances beyond the student's control. When filling out the Course Drop Form, students are expected to check on of the following:

- ☐ An accident/illness prevented me from meeting course requirements.
- ☐ A family/personal emergence prevented me from meeting course requirements.
- ☐ I received no evaluation of my performance before a drop deadline.
- ☐ Employment schedule changed, preventing me from meeting course requirements.
- ☐ \_\_\_\_\_

***Student Conduct Code:*** All students need to be familiar with the Student Conduct Code. You can find it in the "A to Z Index" on the UM home page.