

MATH 131 – MATH FOR ELEMENTARY TEACHERS II

Instructor: Jon Hasenbank **Phone:** (406) 994-5360
Email: jfhasenbank@montana.edu **Office:** 2-232 Wilson Hall
Office Hours: after class till 3:00pm, Monday & Tuesday
11:00am – 11:50am, Friday
Learning Center: 10:00am – 10:50am, Friday

Course Overview:

This course explores three important topics in the elementary curriculum: probability, statistics, and geometry. Although one does not typically think of these topics as foundations of the elementary curriculum, each is introduced in the early elementary grades and developed in greater and greater detail as students progress. This course will assess your ability in two areas: (1) your understanding of the mathematics, and (2) your ability to communicate your understanding of the mathematics. The latter goal is especially relevant to your future as an elementary teacher. Not only will you be asked to solve problems in probability, statistics, and geometry, you will also be asked to examine your solution process – why you used it and why it works. In this way, we hope you emerge from Math 131 with a better understanding of the mathematics and an improved ability to teach it.

PREREQUISITE:

You *must* have satisfactorily completed Math 130 (or its equivalent at another university). Note that in order to be considered for acceptance into the elementary education blocks, you *must* achieve at least a C in Math 131.

Required Textbooks and Recommended Supplementary Materials:

1. Required: *Mathematics for Elementary Teachers: A Contemporary Approach, Sixth Edition*; Musser, Burger, and Peterson; Wiley Publishing.
2. Required: *What Do You Expect*; Glenda Lappan et al.; Dale Seymour Publications.
3. TI-73, 82, or 83 graphing calculator.
4. Geometry Kit (Ruler, Compass, Protractor)
5. Graph Paper and Three-ring Binder for homework, class notes, and handouts.

Policies:

1. **Attendance and behavior** are expected to reflect your dedication to the teaching profession. You are expected to attend class, participate in discussions and group work, and to use class time for Math 131 activities *only*.
2. **Missed quizzes and exams may not be made up.** If you know you will absent on the day of a quiz, you may take it in advance during scheduled office hours. Exams, however, cannot be taken in advance. Under *extreme* circumstances, the final exam will be weighed more heavily to make-up for a missed exam.
3. **Missed in-class activities, including labs, may not be made up.** It will be solely your responsibility to find out about the missed information. One lab score will be dropped in the final determination of your grade.
4. **Late work will not be accepted.** If you are present for an entire in-class activity or lab, but are absent on the day it is *due*, you will not be allowed to hand-in late work unless your absence is excused (i.e. verified by an official external source, received within one week of the absence). In this event, you will be expected to hand-in the work the day of your return.
5. **Projects** are due the day indicated on the syllabus, no late submissions will be allowed.

6. **Homework** problems are recommended, but will not be collected unless specifically stated. However, quiz questions tend to be modeled after homework problems.
- When checking your homework in the back of the book, make sure that you are looking in the correct part of the answer guide. It is easy to mistakenly be looking at the answers for the Chapter Review questions for each section, instead of the answers for the Part A exercises for that section.
 - Be aware that the answer section in the back of the book contains many errors.
 - For your assistance, there is a solution manual for all Part A exercises, in the Math Learning Center. This not only provides answers, but explanations and step-by-step procedures. This is much more helpful than the back of your book.

Assessment:

• Exams – 2 at 100 points each	200
• Final Exam	150
• Labs – 8 at 10 points each (lowest score dropped)	70
• Probability Activities	40
• Statistics Project	50
• Probability Project	30
• Miscellaneous (quizzes, homework, etc.)	<u>60</u>
Approximate Total Points	600

- Your grade will be determined according to the percentage of points earned in the course.

Grading Scale:

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

Math Learning Center:

The *Math Learning Center* (Wilson 1-110) is open 9:00am to 3:00pm each weekday. Please do not hesitate to use this wonderful, free resource. I tutor on Fridays from 10:00am-10:50am. Another Math131 instructor works there at 9am on Monday.

Integrity:

The **integrity** of the academic process requires that credit be given where credit is due. Accordingly, it is academic misconduct to present the ideas or works of another as one's own work, or to permit another to present one's work without customary and proper acknowledgment of authorship. Students may collaborate with other students only as expressly permitted by the instructor. Students are responsible for the honest completion and representation of their work, the appropriate citation of sources and the respect and recognition of others' academic endeavors.

Plagiarism and cheating are serious offenses and may be punished by failure on the exam, paper or project; failure in the course and/or even expulsion from the university.