

Course Syllabus: MATH 10B – Structure and Concepts in Mathematics II

MATH 10B-56174

Instructor: Mr. Steven Zook

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Reedley College

Spring 2020

Office Hours: MTWF 11am – 12pm

Th (Virtual) 8:30am – 9:30am

Meeting Room: FEM 4

Meeting Days: MWF

Meeting Time: 1:00 pm – 1:50 pm

Course Description: This course is designed for prospective elementary school teachers. Topics covered will include counting methods, elementary probability and statistics. Additional topics in Geometry to include polygons, congruence and similarity, measurement, geometric transformations, coordinate geometry, and connections between numbers and geometry with selected applications.

Course Prerequisites: MATH 10A

Course Advisories: Eligibility for ENGL 125 and 126

Student Learning Outcomes:

Upon completion of this course, students will be able to:

1. Apply combinatorics and the rules of probability to real life situations.
2. Analyze statistical information and the 'Normal' distribution to make conclusions based on data.
3. Apply relevant definitions, properties, and theorems to geometric figures.

Objectives:

In the process of completing this course, students will:

1. Interpret data, both graphically and through numerical analysis.
2. Calculate probability of different types of events.
3. Identify, construct and analyze geometric shapes.
4. Determine the congruence or similarity of triangles.
5. Apply the measurement process
6. Identify the patterns and symmetries of plane figures.
7. Apply the concepts of coordinate geometry.

Required Text: Beckmann, Sybilla, **Mathematics for Elementary Teachers with Activities**, Pearson Education, 5th Edition, 2018.

This text is required for reading; however, you do not have to purchase a hard copy of the text since it is available online as an eText with the MyMathLab subscription.

Required Course Material MyMathLab: You will be required to obtain access to MyMathLab. To access the course, follow the instructions below:

Enter Your Canvas Course:

1. Sign in to Canvas and enter your Canvas course.
2. Do one of the following:
 - Select any Pearson link from any module.
 - Select the **MyLab & Mastering** link in the Course Navigation, and then select any course link on the Pearson page.

Get Access to Your Pearson Course Content:

1. Enter your Pearson account **username** and **password** to **Link Accounts**. You have an account if you have ever used a Pearson MyLab & Mastering product, such as MyMathLab, MyITLab, MySpanishLab, MasteringBiology or MasteringPhysics.
 - If you don't have a Pearson account, select **Create** and follow the instructions.
2. Select an access option:
 - Enter the access code that came with your textbook or was purchased separately from the bookstore.
 - Buy access using a credit card or PayPal account.
 - If available, get temporary access by selecting the link near the bottom of the page.
3. From the You're Done page, select **Go to My Courses**.

Note: We recommend you always enter your MyLab & Modified Mastering course through Canvas.

WARNING: Any students who do not gain *full paid* access to MyMathLab by 1/27/20 may be automatically dropped from the course.

Office Hours: I will be holding regular office hours. I want to be available to you if you need assistance outside of class. Please visit me during the scheduled times for drop-in questions. You may come unannounced during those times. If the scheduled office hours do not suit your schedule, you may arrange a time to meet me in my office. Please don't hesitate to take advantage of these since I want you to succeed – it's what I am here for.

Attendance: As a student, you are expected to attend all classes for the entire period. Please be on time and ready to start when class is scheduled to begin. I ask this out of respect for your classmates and me. **Six (6) absences** may result in a drop from the course. If you decide to drop, it is your responsibility to drop the class officially through the Administration and Records office. In failing to do so, you run the risk of receiving a **grade of F**.

Classroom Behavior: Please take care of any personal responsibilities and needs before entering the classroom. Please **TURN OFF your phones** when entering the class. They

should be **off for the duration** of the class period. If you use your phone in class, you may be asked to leave class. While you are in class, I expect you to participate and pay attention. You may not work on the homework in class or prepare for a different class. Please notify me in advance if you plan on bringing a guest to class. You are allowed to use a **scientific calculator**, but not a graphing calculator for this class. Also, you may not use your phone as a calculator.

Drop Deadline: Friday, March 13

Assignments & Exams:

All **online homework** assignments will be completed online at **MyMathLab**. Homework assignments will be due on the due date by **11:59pm** and will cover topics discussed during the previous week. If you submit your homework late, there is a **10% penalty for each day** that the assignment is late.

I will do my best to maintain the pace as laid out in the schedule below. That being said, depending on how quickly or slowly we progress through the material, I reserve the right to adjust homework due dates as needed. Any changes to due dates always will be announced in class.

Throughout the semester, you will earn points for **participation**. Providing responses to questions and participating in activities will earn positive participation points. Absences and tardiness will result in negative participation points. Every three weeks, I will post a participation grade (on a scale from 0-10) in the Canvas gradebook.

There will be regular **class assignments** that will be completed in class.

There will be **six exams** during the course and the dates they will be held are in the course calendar and they will cover the specified content. There will be no make-up exams allowed although it will be possible to schedule a time to take an exam early if it is prearranged. The sixth exam will be held during finals. The lowest exam score will be dropped.

Assignment Categories and Weighting

| <i>Assignment</i> | <i>Weighting</i> |
|----------------------|------------------|
| Online Homework | 20% |
| Participation | 5% |
| Class Assignments | 15% |
| Exams (6 @ 10% each) | 60% |

Final Grades

| <i>Letter Grade</i> | <i>Percent</i> |
|---------------------|----------------|
| A | 90-100 |
| B | 80-89 |
| C | 70-79 |
| D | 60-69 |

SPECIAL NEEDS REQUESTS: If you have a verified need for an academic accommodation or materials in alternate media (i.e., Braille, large print, electronic text, etc.) per the Americans with Disabilities Act (ADA) or Section 504 of the Rehabilitation Act, please contact me as soon as possible.

Please refer to the RC Catalog for the Policies on Academic Dishonesty, Cheating, and Plagiarism, pp. 48-49.

Course Outline and Schedule

- Week 1: Begin Chapter 10: Geometry
- Week 2: No class, Monday, Jan. 20
Homework 1 due on Monday, Jan. 20
- Week 3: **Homework 2** due on Monday, Jan. 27
Exam 1 (Chapter 10): Monday, Jan. 27
Begin Chapter 11: Measurement
- Week 4: **Homework 3** due on Monday, Feb. 3
- Week 5: **Homework 4** due on Monday, Feb. 10
Exam 2 (Chapter 11): Monday, Feb. 10
Begin Chapter 12: Area of Shapes
No class, Friday, Feb. 14
- Week 6: No class, Monday, Feb. 17
- Week 7: **Homework 5** due on Monday, Feb. 24
- Week 8: **Homework 6** due on Monday, Mar. 2
Exam 3 (Chapter 12): Friday, Mar. 6
- Week 9: **Homework 7** due on Monday, Mar. 9
- Week 10: **Homework 8** due on Monday, Mar. 16
Begin Chapter 13: Solid Shapes and Their Volume and Surface Area
- Week 11: **Homework 9** due on Monday, Mar. 23
Exam 4 (Chapters 12, 13): Friday, Mar. 27
- Week 12: **Homework 10** due on Monday, Mar. 30
Begin Chapter 14: Geometry of Motion and Change

----- Spring Break -----

- Week 13: **Homework 11** due on Monday, Apr. 13
- Week 14: **Homework 12** due on Monday, Apr. 20
 Exam 5 (Chapter 14): Friday, Apr. 24
- Week 15: Begin Chapter 15: Statistics
- Week 16: **Homework 13** due on Monday, May 4
 Begin Chapter 16: Probability
- Week 17: **Homework 14** due on Monday, May 11
- Week 18: **Homework 15** due on Monday, May 18
 Exam 6 (Chapters 15, 16): Monday, May 18

I will do my best to follow the schedule content-wise depending on how quickly we can cover the topics. However, the events in bold will take place on their specified dates.

If I make any changes, I will announce them in class and post them on Canvas.