

## Course Syllabus: Structure and Concepts in Mathematics II

**MATH 10B-52080**

**Instructor:** Mr. Steven Zook

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**Reedley College**

**Spring 2018**

**Office Hours:** T 10:00 am – 11:00 am

W 10:00 am – 11:00 am

Th 10:00 am – 11:00 am

**Meeting Room:** FEM 4

**Meeting Days:** MTWTh

**Meeting Time:** 1:00 pm – 2:15 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 and MATH 102

**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, 5<sup>th</sup> 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, use the **Course ID: zook61245**. You will need to first create an account here: [www.pearsonmylabandmastering.com](http://www.pearsonmylabandmastering.com). When creating an account, **use your full first and last name as your name appears in official school records**, using usual capitalization rules.  
**WARNING: Any students who do not gain *full paid* access to MyMathLab by 3/26/18 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. **Four (4) 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:** Tuesday, April 17

**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 **three 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 **comprehensive final exam** will be during finals week. If it is to your benefit, the cumulative final exam score will replace your lowest exam score.

### **Assignment Categories and Weighting**

<i>Assignment</i>	<i>Weighting</i>
Online Homework	15%
Participation	5%
Class Assignments	15%
Exams (3 @ 15% each)	45%
Final Exam (cumulative)	20%

### **Final Grades**

<i>Letter Grade</i>	<i>Percent</i>
A	90-100
B	80-89
C	70-79
D	60-69
F	0-59

**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, pg. 44.**

### **Course Outline and Schedule**

Week 1:       Begin Chapter 10: Geometry  
                  **Homework 1** due on Friday, Mar. 16

Week 2:       Begin Chapter 11: Measurement  
                  **Homework 2** due on Wednesday, Mar. 21  
                  **Homework 3** due on Friday, Mar. 23

- Week 3:     **Homework 4** due on Wednesday, Apr. 4  
              **Exam 1 (Chapters 10, 11): Wednesday, Apr. 4**  
              Begin Chapter 12: Area of Shapes  
              **Homework 5** due on Friday, Apr. 6
- Week 4:     **Homework 6** due on Wednesday, Apr. 11  
              **Homework 7** due on Friday, Apr. 13
- Week 5:     **Exam 2 (Chapter 12): Tuesday, Apr. 17**  
              **Homework 8** due on Wednesday, Apr. 18  
              Begin Chapter 13: Solid Shapes and Their Volume and Surface Area  
              **Homework 9** due on Friday, Apr. 20
- Week 6:     **Homework 10** due on Wednesday, Apr. 25  
              Begin Chapter 14: Geometry of Motion and Change  
              **Homework 11** due on Friday, Apr. 27
- Week 7:     **Exam 3 (Chapters 13, 14): Tuesday, May 1**  
              **Homework 12** due on Wednesday, May 2  
              Begin Chapter 15: Statistics  
              **Homework 13** due on Friday, May 4
- Week 8:     Begin Chapter 16: Probability  
              **Homework 14** due on Wednesday, May 9  
              **Homework 15** due on Friday, May 11
- Week 9:     Finals Week (no classes except for final exam)  
              **Homework 16** due on Monday, May 14  
              **FINAL EXAM on Monday, May 14, 1:00 pm – 2:50 pm**

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.