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

MATH 10B-55002 Reedley College
100% Online Spring 2021
Instructor: Mr. Steven Zook Email: steven.zook@reedleycollege.edu
Phone: (559) 638-3641 ext. 3279 Office: FEM 4A
Office Hours: TTh 10am-12pm, W 9-10am Virtual Office

Meeting Days
Tuesday, 9:00 – 9:50 am, Zoom (links in Canvas)

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.

Student Learning Outcomes are statements about what the discipline faculty hope you will be able to do at the end of the course. This is NOT a guarantee: the ultimate responsibility for whether you will be able to do these things lies with you, the student. In addition, the assessment of Student Learning Outcomes is done by the department in order to evaluate the program as a whole, and not to evaluate individual faculty performance.

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 (required) 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 1/25/21 may be automatically dropped from the course.

Office Hours:
I will be holding regular virtual 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 with me by sending me an email. Please don't hesitate to take advantage of these since I want you to succeed – it's what I am here for.
This semester all my office hours are virtual at the following link: Virtual Office

Communication:
There are a variety of ways to reach me. I will do my best to respond to messages and emails that are received Monday-Friday between 9am and 5pm as soon as possible, but no later than 24 hours. If you don't hear back from me in 24 hours, assume I did not receive your message/email and please resend it. On weekends, please give me additional time - I will respond to messages/emails received over the weekend (after Friday 5pm) on Monday mornings. Please identify yourself in the email with your full name and course number (e.g. Steven Zook, MATH 11-55014).

Preferred:
1. Message me using the "Inbox" feature in Canvas.
2. Email me directly: steven.zook@reedleycollege.edu
3. Drop by my virtual office (zoom) during my scheduled office hour: Virtual Office
4. Consider posting a general course question in the Q&A discussion thread on Canvas.

Other:
5. Visit me in my office: FEM 4A (on hold until it is safe to be in my office and have visitors)
6. Call me on my office phone: 559.638.3641 extension 3279. If leaving a message, please let me know your full name and the course you are taking along with a call-back number.

Attendance and Drop Policy:
The primary way that you "attend" class is by participating in class discussions and completing assignments (homework, quizzes, and exams). It is important that students regularly and consistently participate in the course from the very beginning. For this reason I have the following guidelines for when I may drop students from the course. If I intend to drop you, I will always message you a warning before I do, so don't be anxious about being dropped "out of the blue". If you do have missing assignments, I encourage you to reach out to me, so we can make a plan to get you on track - the sooner the better!

1. Introduce yourself to me and to your classmates by participating in the **Introduction discussion** during the first week. Otherwise, I may drop you as a "no-show".
2. Start strong! Complete **all assignments** during the first two weeks of class. If you miss an assignment during the first two weeks, I may drop you from the course.
3. If you miss **more than eight (8) assignments** (discussion, quiz, homework, exam, etc.) during the first 9 weeks of the semester, I may drop you from the course for poor attendance.

Drop Deadline: Friday, March 12

Assignments:
1. Homework assignments can be worked on any time before they are due. I will accept late homework; however, I automatically deduct 10% for each day after the due date that the assignment is late. So, an assignment that is 10 or more days late will not receive credit (10 x 10% = 100% penalty).
2. Discussions will not be accepted late. Your classmates depend on your thoughtful, consistent, and timely participation.

3. Exams cannot be made up late for any reason. However, to safeguard against any unavoidable and unforeseen circumstances, I drop the lowest exam score. I do allow you to take an exam early, if it is prearranged.

Assignment Categories and Weighting:

Assignment	*Weighting*
Homework	10%
Discussions	15%
Class Activities	15%
Chapter Tests (4 @ 15% each)	60%

Final Grades:

Letter Grade	***Percent***
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.

Plagiarism and Academic Honesty:
Please refer to the policies in the Reedley College catalog, pages 47, 48. Academic honesty is of utmost importance and the college policies will be followed.

Course Outline and Schedule:

Week 1: Begin Chapter 10: Geometry
Discussion 1 due on Thursday, Jan 14
Homework 1 due on Friday, Jan 15

Week 2: **Discussion 2** due on Thursday, Jan 21
Homework 2 due on Friday, Jan 22

Week 3: Begin Chapter 11: Measurement
Discussion 3 due on Thursday, Jan 28
Homework 3 due on Friday, Jan 29

Week 4: **Discussion 4** due on Thursday, Feb 4
Homework 4 due on Friday, Feb 5
Exam 1 (Chapters 10, 11), Friday, Feb 5

Week 5: Begin Chapter 12: Area of Shapes
Discussion 5 due on Thursday, Feb 11
Homework 5 due on Friday, Feb 12

Week 6: **Discussion 6** due on Thursday, Feb 18
Homework 6 due on Friday, Feb 19

Week 7: **Discussion 7** due on Thursday, Feb 25
Homework 7 due on Friday, Feb 26

Week 8: **Discussion 8** due on Thursday, Mar 4
Homework 8 due on Friday, Mar 5
Exam 2 (Chapter 12), Friday, Mar 5

Week 9: Begin Chapter 13: Solid Shapes and Their Volume and Surface Area
Discussion 9 due on Thursday, Mar 11
Homework 9 due on Friday, Mar 12

Week 10: **Discussion 10** due on Thursday, Mar 18
Homework 10 due on Friday, Mar 19

Week 11: Begin Chapter 14: Geometry of Motion and Change
Discussion 11 due on Thursday, Mar 25
Homework 11 due on Friday, Mar 26

---------- **Spring Break** ----------

Week 12: **Discussion 12** due on Thursday, Apr 8
Homework 12 due on Friday, Apr 9

Week 13: **Discussion 13** due on Thursday, Apr 15
Homework 13 due on Friday, Apr 16
Exam 3 (Chapters 13, 14), Friday, Apr 16

Week 14: Begin Chapter 15: Statistics
Discussion 14 due on Thursday, Apr 22
Homework 14 due on Friday, Apr 23

Week 15: **Discussion 15** due on Thursday, Apr 29
Homework 15 due on Friday, Apr 30

Week 16: Begin Chapter 16: Probability
Discussion 16 due on Thursday, May 6
Homework 16 due on Friday, May 7

Week 17: **Discussion 17** due on Thursday, May 13
Homework 17 due on Friday, May 14

Week 18: **Exam 4 (Chapters 15, 16), Wednesday, May 19**