Course Syllabus: MATH 10B – Mathematics for Elementary School Teachers II

MATH 10B-51003
F2F
Instructor: Mr. Steven Zook
Phone: (559) 638-3641 ext. 3279
Office Hours:
M 1:00 – 1:50pm; W 1:00 – 1:50pm
Th 12:00 – 12:50pm

Reedley College
Fall 2023
Email: steven.zook@reedleycollege.edu
Office: MAS 129

Virtual Office (click to open zoom)
T 11:00 – 11:50am, F 11:00 – 11:50am

Meeting Days and Location:
MW 11:30 am – 12:45 pm; FNR 4

Course Description:
Mathematics for Elementary School Teachers II focuses on the development of geometric reasoning skills through exploration of polygons, congruence and similarity, measurement, geometric transformations, coordinate geometry, and connections between numbers and geometry with selected applications. Additional topics include counting methods, elementary probability, and statistics.

Course Prerequisites:
MATH 10A

Course Advisories:
English 1A or 1AH

Student Learning Outcomes:
Upon completion of this course, students will be able to:
1. Apply appropriate counting methods and the rules of probability to real-life situations.
2. Interpret numerical and categorical sample data and draw informal inferences about populations.
3. Use relevant definitions, properties, and theorems to solve geometric problems.

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.

Course Outline:
In the process of completing this course, students will learn about:
1. Geometry: properties of angles, lines, circles, and polygons in Euclidean geometry
2. Measurement: length, area, volume, error, precision, and conversion of units
3. Area: triangles, quadrilaterals, polygons, circles, and the Pythagorean theorem
4. Volume and surface area: polyhedra, prisms, cylinders, pyramids, and cones
5. Congruence and similarity: rigid transformations, symmetry, congruence of triangles, geometric constructions, similarity, and scaling

6. Coordinate geometry: the Cartesian coordinate system, transformations of shapes, lines and segments, distance, midpoint, and parallel and perpendicular lines
7. Probability: empirical probability, principles of counting, theoretical probability
8. Statistics: graphical representation of data, measures of central tendency and variability, statistical inference

Required Text:
Beckmann, Sybilla, <u>Mathematics for Elementary Teachers with Activities</u>, 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 as an eText with the (required) MyMathLab subscription.

Required Course Material:
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:
   o Select any Pearson link from any module.
   o 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.
   o If you don't have a Pearson account, select **Create** and follow the instructions.
2. Select an access option:
   o Enter the access code that came with your textbook or was purchased separately from the bookstore.
   o Buy access using a credit card or PayPal account.
   o 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 8/21/23 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 some of my office hours are in person in my office in the new math and science building (MAS 129); the others 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 10B-51003).

Preferred:
1. Message me using the "Inbox" feature in Canvas.
2. Email me directly: steven.zook@reedleycollege.edu
3. Visit me in my office: MAS 129
4. Drop by my virtual office (zoom) during my scheduled office hour: Virtual Office
5. Consider posting a general course question in the Q&A discussion thread on Canvas.

Other:
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, class activities, 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, class activity, homework, exam, etc.) during the first 9 weeks of the semester, I may drop you from the course for poor attendance.

Drop Deadline:
Friday, October 6

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. Class Activities are given in class (about 1 – 3 each week) and are to be finished by the next class period.

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	20%
Class Activities	20%
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 2023-2024 Reedley College catalog, pages 48, 49. Academic honesty is of utmost importance and the college policies will be followed.

Course Outline and Schedule:

Week 1:   Begin Chapter 10: Geometry; **HW 1** due Friday

Week 2:   **HW 2** due on Friday

Week 3:   Begin Chapter 11: Measurement; **HW 3** due on Friday

Week 4:   **HW 4** due on Friday; **Exam 1 (Chapters 10, 11), Friday**

Week 5:   Begin Chapter 12: Area of Shapes; **HW 5** due on Friday

Week 6:   **HW 6** due on Friday

Week 7:   **HW 7** due on Friday

Week 8:   **HW 8** due on Friday; **Exam 2 (Chapter 12), Friday**

Week 9:   Begin Chapter 13: Solid Shapes and Their Volume and Surface Area; **HW 9** due on Friday

Week 10:   **HW 10** due on Friday

Week 11:   Begin Chapter 14: Geometry of Motion and Change; **HW 11** due on Friday

Week 12:   **HW 12** due on Friday

Week 13:   **HW 13** due on Friday, **Exam 3 (Chapters 13, 14), Friday**

Week 14:   Begin Chapter 15: Statistics; **HW 14** due on Friday

Week 15:   **HW 15** due on Friday

Week 16:   Begin Chapter 16: Probability; **HW 16** due on Friday

Week 17:   **HW 17** due on Friday

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