THE UNIVERSITY OF TEXAS AT EL PASO
COLLEGE OF SCIENCE
DEPARTMENT OF MATHEMATICAL SCIENCES

Course Number: MATH 2304 (CRN 11960)
Course Title: Geometry & Measurement
Credit Hrs: 3
Term: Fall 2021

Online Course Meetings
75% Synchronous (Mondays 3:00 PM - 5:00 PM)
25% Asynchronous

Prerequisite Courses: Departmental approval

Course Fee: None
Instructor: Kien Lim
Office Location: Bell Hall 301

Contact Info: E-mail Address: kienlim@utep.edu
Office Phone: (915) 747-6772
Fax Number: (915) 747-6502
Emergency Contact: (915) 747-5761

Office Hours:
Mondays: 1pm – 2pm (via Zoom at https://tinyurl.com/LimHours)
Wednesdays: 4pm – 5pm (via Zoom at https://tinyurl.com/LimHours)
Thursdays: 2pm – 3pm (in-person in Bell Hall 301)

Course Description:
This course focuses on geometry and measurement for prospective elementary and middle school teachers. Topics include measurement as a process of units of measurement for quantities such as length, area, volume, angle size, and speed; conversions of units of measurement; properties and formulas for basic geometrical shapes such as polygons, circles, polyhedra, and cones; transformations such as translations, rotations, reflections, and dilations to geometric relationships and constructions using straight edge, compass, and technology. The focus is on spatial reasoning, logical reasoning, and making connections among geometric ideas and measurement, number concepts, and algebra.

Course Objectives: Students will
(a) deepen their understanding of geometry as a study of space and shapes, and measurement as a process of determining size;
(b) make connections and distinction among between concepts, e.g., congruent figures and rigid motion, similarity and proportionality;
(c) conceive mathematics as a problem solving endeavor that involves visualizing, investigating, and analyzing;
(d) develop the habits of attending to meaning, of analyzing problem situations, and of making conjectures and providing justifications;
(e) develop the skills for active reading and understanding mathematical texts; and
(f) cultivate a growth mindset where the focus is learning and effort rather than looking good and performance.
Textbook & Technology: 1. Mathematics for Elementary Teachers with Activities (5th Ed) by Sybilla Beckmann (https://www.pearson.com/store/p/mathematics-for-elementary-teachers-with-activities/P100002322280). Note: This textbook is also used for MATH 2303 and 3305/3308; own a copy because it is a good resource for math teachers.

2. A laptop or computer for Zoom sessions with webcam & microphone

3. A smart phone for i-Clicker Reef (register using your UTEP email)


5. Respondus Lockdown Browser & Respondus Monitor

6. Class Notebook (via OneNote)

7. Protractor, compass, ruler, and a pair of scissors

Course Structure: We are using a flipped learning model.

- For synchronous sessions via Zoom, students will participate in virtual class activities and engage in group work and whole class discussions.
- For asynchronous learning, students read and understand the textbook, watch math videos, and/or generate questions to ask during synchronous sessions.

You are expected to put in an average of 9-12 hours per week for a 3-credit hour course.

Course Schedule: | Weeks | Sections | Topic |
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<tbody>
<tr>
<td>1 – 3</td>
<td>10.1 – 10.4</td>
<td>Geometry</td>
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<tr>
<td>4 – 6</td>
<td>11.1 – 11.4</td>
<td>Measurement</td>
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<tr>
<td>7 – 9</td>
<td>12.1 – 12.9</td>
<td>Areas &amp; Perimeters</td>
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<tr>
<td>10 – 11</td>
<td>13.1 – 13.4</td>
<td>Volumes &amp; Surface Areas</td>
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<tr>
<td>12 – 15</td>
<td>14.1 – 14.7</td>
<td>Geometry of Motion &amp; Change</td>
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TExES Competencies:

- TExES 391 (Core EC-6): Math (802) Competencies 4, 6, 1
- TExES 211 (Core 4-8): Math (807) Competencies 8, 9, 10, 11, 15, 16
- TExES 115 (Math 4-8): Competencies 8, 9, 10, 11, 15, 16
- TExES 161 (Special Ed EC-12): Competency 9

Grading Scheme:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Homework</td>
<td>30%</td>
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<tr>
<td>Participation &amp; Engagement</td>
<td>15%</td>
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<tr>
<td>Quizzes</td>
<td>15%</td>
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<tr>
<td>Mid-term Exam</td>
<td>15%</td>
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<tr>
<td>Final Examination (Dec 6, Mon, 4-7pm)</td>
<td>25%</td>
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Important Dates: Census Day (Last Day to Drop without W): Sep 8
Course Drop Deadline (Last Day to Drop with a “W”): Oct 29

If you feel that you are unable to complete the course successfully, please let me know and then contact the Registrar’s Office to initiate the drop process. If you do not, you are at risk of receiving an “F” for the course.
Coursework and Grading:  
Math Homework (30%)
- You will do their homework on OneNote.
- Each homework is due Saturday 11pm (there is no need to upload or submit). Once the homework is locked for grading, you cannot work on it or make changes.
- We try to have your homework graded before class on Monday.
- Go over the comments for questions that are graded.
- Prepare questions to ask during class meetings or office hours.

Participation & Engagement (15%)
- Attend synchronous sessions via Zoom
- Participate in class discussion with webcam and microphone
- Participate in classroom voting via i-Clicker on a mobile device
- Engage via shared Google slides
- Watch math videos via Edpuzzle and answer embedded questions (80% on time completion & 20% correctness)

Quizzes (15%)
- Take quizzes 15 minutes before classes.
- Quiz items assess your asynchronous learning.

Examinations (40%)
- The mid-term exam has 2 parts: (1) in-class part is administered during class time via Respondus Lockdown Browser, and (2) offline part is to be completed within 24 hours after the in-class part.
- The final examination is comprehensive and has 2 parts: (1) in-class part is administered during scheduled time on finals week, and (2) offline part is to be completed within 24 hours after the in-class part.
- A two-sided cheat sheet and a calculator are allowed for each exam.
- Exam items are designed to assess your conceptual understanding and problem-solving.

To compensate for the higher-cognitive demand, reasoning and sense-making in this course, the following scale is used:

- A \geq 80%
- B 70% - 80%
- C 60% - 70%
- D 45% - 60%
- F < 45%

Late-work & Make-up Policy:
- No late work will be accepted unless it is a case of documented emergency. Email me if you have technical issues or emergencies.
- There will be no make-up for homework and quizzes.
- The lowest score of your homework will be dropped.
- If you should miss the exam, the possibility of a make-up will be determined on an individual basis. If you cannot provide documentation to support your reason, your exam grade will be counted as the missed-exam grade.
In Case of Technical Issues:

- Back-up and submit your work with plenty of time to spare in the event that you have a technical issue with the course website, network, and/or your computer.
- If you are experiencing difficulties submitting your work through the course website, please contact the UTEP Help Desk. You can email me your back-up document as a last resort.

Test Proctoring Software:

- Quizzes and exams will make use of Respondus Lockdown Browser and Respondus Monitor inside of Blackboard to promote academic integrity.
- Quizzes and exams will only be available at the testing times.
- A reliable Internet connection is essential to completing the exam. If you must go to a location to take the exam (such as the library), be sure to follow their health and safety requirements.
- Once the window closes, your answers will be saved, and no changes can be made.
- Respondus Lockdown Browser will require that all internet tabs are closed prior to the start of the test.
- Respondus Monitor requires a webcam and microphone.
- You will be required to show the webcam your student ID prior to the start of the test.
- Your face should be completely visible during the test. Blocking the camera will disable the test.
- No textbook materials (except a one-page cheat sheet) are permitted during the test. Respondus Monitor requires you to take a video of your surrounding area (desk, chair, walls, etc.).
- You should not have conversations with other people and/or leave and return to the area during the test.
- You are not allowed to use other mobile or electronic device (except a calculator).

Academic Integrity Policy:

- Academic dishonesty is prohibited and is considered a violation of the UTEP Handbook of Operating Procedures. It includes, but is not limited to, cheating, plagiarism, and collusion. Cheating may involve copying from or providing information to another student, possessing unauthorized materials during a test, or falsifying research data on laboratory reports. Plagiarism occurs when someone intentionally or knowingly represents the words or ideas of another as ones' own. Collusion involves collaborating with another person to commit any academically dishonest act. Any act of academic dishonesty attempted by a UTEP student is unacceptable and will not be tolerated. All suspected violations of academic integrity at The University of Texas at El Paso must be reported to the Office of Student Conduct and Conflict Resolution (OSCCR) for possible disciplinary action. To learn more, please visit HOOP: Student Conduct and Discipline.
Incomplete Grade Policy: All grades of Incomplete must be accompanied by an Incomplete Contract that has been signed by the instructor of record, student, departmental chair, and the dean. The College of Science allows a period of one month to complete this contract. A grade of Incomplete is only used in extraordinary circumstances confined to a limited event such as a missed exam, project, or lab. If the student has missed a significant amount of work (e.g. multiple assignments or tasks), a grade of Incomplete is not appropriate or warranted.

Accommodation Policy: The University is committed to providing reasonable accommodations and auxiliary services to students, staff, faculty, job applicants, applicants for admissions, and other beneficiaries of University programs, services and activities with documented disabilities in order to provide them with equal opportunities to participate in programs, services, and activities in compliance with sections 503 and 504 of the Rehabilitation Act of 1973, as amended, and the Americans with Disabilities Act (ADA) of 1990 and the Americans with Disabilities Act Amendments Act (ADAAA) of 2008. Reasonable accommodations will be made unless it is determined that doing so would cause undue hardship on the University. Students requesting an accommodation based on a disability must register with the UTEP Center for Accommodations and Support Services (CASS). Contact the Center for Accommodations and Support Services at 915-747-5148, or email them at cass@utep.edu, or apply for accommodations online via the CASS portal.

Copyright Statement for Course Materials: All materials used in this course are protected by copyright law. The course materials are only for the use of students currently enrolled in this course and only for the purpose of this course. They may not be further disseminated.

Covid-19 Precautions Please stay home if you have been diagnosed with COVID-19 or are experiencing COVID-19 symptoms. If you are feeling unwell, please let me know as soon as possible, so that we can work on appropriate accommodations. If you have tested positive for COVID-19, you are encouraged to report your results to coidaction@utep.edu, so that the Dean of Students Office can provide you with support and help with communication with your professors. The Student Health Center is equipped to provide COVID 19 testing.

The Center for Disease Control and Prevention recommends that people in areas of substantial or high COVID-19 transmission wear face masks when indoors in groups of people. The best way that Miners can take care of Miners is to get the vaccine. If you still need the vaccine, it is widely available in the El Paso area, and will be available at no charge on campus during the first week of classes. For more information about the current rates, testing, and vaccinations, please visit https://www.epstrong.org/.
Services & Resources:

Help Desk
Students experiencing technological challenges (email, Blackboard, software, etc.) can submit a ticket to the UTEP Helpdesk for assistance. Contact the Helpdesk via phone, email, chat, website, or in person if on campus.

UTEP Library
Access a wide range of resources including online, full-text access to thousands of journals and eBooks plus reference service and librarian assistance for enrolled students.

Math Tutoring Center (MaRCS)
Ask a tutor for help and explore other available math resources.

University Writing Center (UWC)
Submit papers here for assistance with writing style and formatting, ask a tutor for help and explore other writing resources.

RefWorks
A bibliographic citation tool; check out the RefWorks tutorial and Fact Sheet and Quick-Start Guide.

Military Student Success Center
Assists personnel in any branch of service to reach their educational goals.

Center for Accommodations and Support Services
Assists students with ADA-related accommodations for coursework, housing, and internships.

Counseling and Psychological Services
Provides a variety of counseling services including individual, couples, and group sessions as well as career and disability assessments.