Math 1351.010 and 03Z
TR 9:30 – 11:15 am
Mathematics for Elementary/Middle School Teachers II
FALL 2019 Syllabus

Disclaimer:
This syllabus is current and accurate as of its posting date, but will not be updated. For the most complete and up-to-date course information, contact the instructor.

Instructor Information:
Instructor: Ashlee Fuchs
E-mail: Ashlee.Fuchs@angelo.edu
Office: 220E
Office phone: 325-486-5433
Class Time/Location: TR 12:30-2:15pm/MCS 211
Office Hours:
Monday: 12:00 – 1:00 p.m.; 1:45 p.m. – 3:15 p.m.
Tuesday, Thursday: 8:45 – 9:15 a.m.; 11:30 a.m. – 1:15 p.m.
Wednesday: 12:00 – 1:00 p.m.; 1:45 p.m. – 2:45 p.m.
Friday: 12:00 – 1:00 p.m.
or by appointment.

Expectations of Students
As a future educator, in this class you will be expected to:

- Attend class consistently and in a timely manner.
- Foster a learning environment by practicing common courtesy at all times. Be respectful of your classmates and work cooperatively and constructively during group activities.
- Pay attention fully during class – remove distractions by turning off cell phones and other electronics.
- Complete each assignment by the specified due date. Homework is due at the beginning of class.
- Maintain academic honesty.
  - Angelo State University expects its students to maintain complete honesty and integrity in their academic pursuits. Students are responsible for understanding the Academic Honor Code.
- Work outside of class on homework and review materials to master concepts and adequately prepare for exams. Seek out extra practice when needed.
- Utilize, as needed, all available study-aid options (including visiting the math lab, meeting with the instructor, etc.) to resolve questions.

Grading

- Assignments and grades will be posted on Blackboard.
- Throughout the semester there will be: homework, in-class activities, journal assignments, portfolio checks, etc. These will all be combined to form the daily average.
- I use the standard: 100 – 90 A, 89 – 80 B, 79 – 70 C, 69 – 60 D, below 60 F. This class is part of the coursework for your major, so a grade of C or better is required to pass.

Grading Scheme

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage of Semester Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily average</td>
<td>20%</td>
</tr>
<tr>
<td>Each regular exam (3)</td>
<td>20%</td>
</tr>
<tr>
<td>Final exam</td>
<td>20%</td>
</tr>
</tbody>
</table>
Attendance Policy

- Attendance will be taken daily. If you are tardy, it is your responsibility to let me know after class so I can change my records. Do not make tardiness a habit. Also, it is your responsibility to check for missed assignments on Blackboard when you are absent.

  0-4 absences ......................... No change to average
  5 + Absences ....................... 3 points will be subtracted from your final average for each absence

Exams

- We will have three regular exams and a comprehensive final exam.
- There will be no make-up exams. If you know that you are going to miss an exam, you need to make arrangements with me beforehand.
- If it is to your benefit, your final exam score will replace the lowest of your three regular exam scores at the end of the semester.
- The comprehensive final exam will be **Tuesday, December 10, 2019 from 10:30am-12:30pm.**

In-class activities

- We will be doing many in-class activities and a daily grade will be recorded for active participation. Reading about an activity is very different from experiencing an activity, so it is imperative that you make every effort to attend class.
- Most of these activities will involve the use of math manipulatives and will be done in small groups.
- Besides learning mathematical content in an inquiry-based environment, these activities will focus on learning how to communicate your thinking and how to listen to your peers.
- Hopefully, they will give you a deeper understanding of the content and provide ideas on how to teach math to your future students.
- NOTE: If you are caught texting, sleeping, or working on material for another class, you will receive a participation grade of zero for that day.

Homework

- All homework and quizzes should be worked with a #2 pencil and folded in half length-wise with your name and assignment number on the outside.
- Please use standard size white notebook paper (or unlined bond) for homework.
- If you have more than one piece of paper, staple your papers together in the upper left-hand corner.
- Box in your answers.
- Except for true/false and completion problems, show your work in an organized readable form.
- When I grade your tests, I will grade your work as well as your answers. A general rule is to show as much work on your papers as I show on similar problems in class.
- If you hand in homework with no work shown, you will receive a grade of 0.
- Homework assignments are due promptly at the beginning of the class period. If you come in tardy, your homework will be counted as late.

Daily Average Notes

- Six daily grades will be dropped before computing your daily average. This is the leeway you are given to allow for unavoidable absences. You need to think of this as your insurance in case you get sick or have a family emergency.
- If you know you are going to be absent, bring your homework by my office before class or send it with a classmate.
- If you are absent, it is your responsibility to look on Blackboard and find out what homework was assigned. I would also appreciate it if you contact me to discuss your absences.
Centers

- In a K-8 classroom, centers are hands-on activities that introduce new concepts, enrich or reinforce concepts that have already been taught, or help children make connections between different ideas.
- Centers are usually done in small groups with little or no teacher assistance. I plan to set up centers for you to do during the semester.
- It will be your responsibility to do these centers outside of class time. Most (if not all) will require you to do them in our classroom because there will be instructions and materials provided.
- Times that are available for access to the classroom will be announced soon.

Portfolios

- A portfolio is a collection of various things for and about each student. It has many purposes: to teach organizational skills, to keep track of assignments, to use as a study guide, to create a resource file for future use, etc.
- Please bring a 3-ring binder and a package of 8 dividers to the 2nd class period so that we can put your portfolio together.
- Your divider tabs need to be labeled:
  - Assignments, Test 1 material, Test 2 material, Test 3 material, tests, lab manual, and miscellaneous.
- You also need to make a title page that includes:
  - MATH 1351, Mathematics for Elementary/Middle School Teachers II, Fall 2019, and your name.
- Bring your portfolio to class every day.

Prerequisites

1) College Algebra (MATH 1314) OR Finite Mathematics (MATH 1324) with a grade of C or better
2) Mathematics for Elementary/Middle School Teachers I (MATH 1350) with a grade of C or better

Required text/lab manual

- We will be using an online homework system called MyMathLab on a weekly basis. It is important to note that an eBook will be available through MyMathLab.
- The MATH 1351 lab manual (only available at the ASU Bookstore)

Miscellaneous Supplies

Stuff to buy:
- Notebook paper
- One 3-inch 3-ring binder
- One packet of 8 tabs
- Protractor, compass, & ruler

Math Lab

There is a free math lab where you can do your homework and get help with it. It is located on the third floor of the library in room C302. Here’s the schedule:

Monday – Thursday: 9:00am – 8:00pm
Friday: 9:00am – 12:00pm
Sunday: 4:00pm – 8:00 pm

Drop Date:
Thursday, October 31, 2019 is the last day to drop a course with a W or withdraw from ASU.
University Policies:

**Student Disability Services**

ASU is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments of 2008 (ADAAA), and subsequent legislation.

The Office of Student Affairs is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability, and it is the student’s responsibility to initiate such a request by contacting:

Dallas Swafford  
Director of Student Disability Services  
Office of Student Affairs  
325-942-2047  
dallas.swafford@angelo.edu

**Title IX at Angelo State University**

Angelo State University is committed to providing and strengthening an educational, working, and living environment where students, faculty, staff, and visitors are free from sex discrimination of any kind. In accordance with Title VII, Title IX, the Violence Against Women Act (VAWA), the Campus Sexual Violence Elimination Act (SaVE), and other federal and state laws, the University prohibits discrimination based on sex, which includes pregnancy, and other types of Sexual Misconduct. Sexual Misconduct is a broad term encompassing all forms of gender-based harassment or discrimination and unwelcome behavior of a sexual nature. The term includes sexual harassment, nonconsensual sexual contact, nonconsensual sexual intercourse, sexual assault, sexual exploitation, stalking, public indecency, interpersonal violence (domestic violence or dating violence), sexual violence, and any other misconduct based on sex.

You are encouraged to report any incidents involving sexual misconduct to the Office of Title IX Compliance and the Director of Title IX Compliance/Title IX Coordinator, Michelle Boone, J.D. You may submit reports in the following manner:

Online: [Title IX Incident Form](#)  
Face to Face: Mayer Administration Building, Room 210  
Phone: 325-942-2022  
E-Mail: michelle.boone@angelo.edu

*Note, as a faculty member at Angelo State, I am a mandatory reporter and must report incidents involving sexual misconduct to the Title IX Coordinator. Should you wish to speak to someone in confidence about an issue, you may contact the University Counseling Center (325-942-2371), the 24-Hour Crisis Helpline (325-486-6345), or the University Health Clinic (325-942-2171). For more information about resources related to sexual misconduct, Title IX, or Angelo State's policy please visit: [ASU Title IX website](#).*
Student Absence for Observance of Religious Holy Days
A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. (OP 10.19 Student Absence for Observance of Religious Holy Days iv)

Incomplete Grade Policy
It is policy that incomplete grades be reserved for student illness or personal misfortune. Please contact faculty if you have serious illness or a personal misfortune that would keep you from completing course work. Documentation may be required. (See ASU OP 10.11 Grading Procedures v for more information.)

Student Conduct Policies:

Academic Integrity
Students are expected to maintain complete honesty and integrity in all work. Any student found guilty of any form of dishonesty in academic work is subject of disciplinary action and possible expulsion from ASU. The College of Science and Engineering adheres to the Statement of Academic Integrity vi.

Plagiarism
Plagiarism is a serious topic covered in ASU’s Academic Integrity vii in the Student Handbook. Plagiarism is the action or practice of taking someone else’s work, idea, etc., and passing it off as one’s own. Plagiarism is literary theft.

In your discussions and/or your papers, it is unacceptable to copy word-for-word without quotation marks and the source of the quotation. It is expected that you will summarize or paraphrase ideas giving appropriate credit to the source both in the body of your paper and the reference list.

Papers are subject to be evaluated for originality via Turnitin. Resources to help you understand this policy better are available at the ASU Writing Center viii.

Copyright Policy
Students officially enrolled in this course should make only one printed copy of the given articles and/or chapters. You are expressly prohibited from distributing or reproducing any portion of course readings in printed or electronic form without written permission from the copyright holders or publishers.

General Policies Related to this Course
All students are required to follow the policies and procedures presented in these documents:
- Angelo State University Student Handbook ix
- Angelo State University Catalog x
Student Learning Outcomes:
1. Students will gain factual knowledge including the mathematical terminology, classifications, and methods used in this course. Students will use the vocabulary, symbolism, structure, reasoning, and procedures that are needed to teach the mathematical content for grades K-8. See course content for more details.

2. Students will learn the fundamental principles, generalizations, and theories covered in this course. Students will demonstrate understanding of the conservation of area and volume, non-standard and standard measurement, proportionality, similarity, congruence, and basic probability.

3. Students will learn to apply course material. Students will be able to make connections between concepts and also apply knowledge in a new and different setting. In particular, students will learn how to translate course content into K-8 grade appropriate lessons.

4. Students will develop specific skills, competencies, and points of view needed by K-8 mathematics teachers. In addition to learning the mathematical content of this course, students will:
   • become familiar with the Texas Essential Knowledge and Skills (TEKS) and the National Council of Teachers of Mathematics (NCTM) Standards;
   • learn multiple approaches to the teaching of mathematics;
   • use manipulatives to model mathematical concepts;
   • develop communications skills (oral, written, and listening), knowledge of appropriate vocabulary, and various questioning strategies;
   • learn how to use resources (such as the Internet and NCTM journals) in planning classroom activities.

5. Students will gain a broader understanding and appreciation for mathematics.

Course Content:
The following chapters from the textbook are covered:

- Chapter 6: Rational Numbers and Proportional Reasoning
  - Proportional reasoning

- Chapter 7: Rational Numbers as Decimals and Percents
  - Converting percents; basic percent problems; percent increase and decrease

- Chapter 9: Probability
  - Probability; experimental and theoretical probability; probability rules and simulations.

- Chapter 10: Data Analysis / Statistics
  - Observational studies and experiments; statistical graphs and tables; misleading graphs and statistics; mode, median, and mean; measuring spread; standardized test scores. (as time permits)

- Chapter 11: Introduction to Geometry
  - Beginning geometry; polygons; triangles, quadrilaterals, and circles; angle measures of polygons; three-dimensional geometry; viewing and drawing solid figures; symmetry

- Chapter 12: Congruence and Similarity
  - Congruent triangles; similar polygons

- Chapter 13: Area, Pythagorean Theorem, and Volume
  - Measurement. systems of measurement; perimeter and area; areas of quadrilaterals, triangles, and circles; the Pythagorean theorem; surface area; volume; lengths, areas, and volumes of similar figures.

- Chapter 14: Transformations
  - Translations; rotations; reflections; dilations; tessellations
<table>
<thead>
<tr>
<th>Day</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Syllabus, class expectations, ratio and proportion</td>
</tr>
<tr>
<td>2</td>
<td>Ratio and proportion</td>
</tr>
<tr>
<td>3</td>
<td>Ratio and proportion, scale drawing</td>
</tr>
<tr>
<td>4</td>
<td>Conversions, percent</td>
</tr>
<tr>
<td>5</td>
<td>Percents, decimals, fractions</td>
</tr>
<tr>
<td>6</td>
<td>Percent problems, basic geometry</td>
</tr>
<tr>
<td>7</td>
<td>Basic geometry, triangles</td>
</tr>
<tr>
<td>8</td>
<td>Triangles, planar figures</td>
</tr>
<tr>
<td>9</td>
<td>Planar figures, polygons</td>
</tr>
<tr>
<td>10</td>
<td>TEST 1</td>
</tr>
<tr>
<td>11</td>
<td>Quadrilaterals</td>
</tr>
<tr>
<td>12</td>
<td>Circles, space figures</td>
</tr>
<tr>
<td>13</td>
<td>Space figures, nets</td>
</tr>
<tr>
<td>14</td>
<td>Space figures, 3-D drawings, symmetry</td>
</tr>
<tr>
<td>15</td>
<td>Symmetry, transformations</td>
</tr>
<tr>
<td>16</td>
<td>Transformations, similar figures</td>
</tr>
<tr>
<td>17</td>
<td>Dilations, tessellations</td>
</tr>
<tr>
<td>18</td>
<td>TEST 2</td>
</tr>
<tr>
<td>19</td>
<td>Tangrams, measurement intro</td>
</tr>
<tr>
<td>20</td>
<td>Measurement, geoboards</td>
</tr>
<tr>
<td>21</td>
<td>Area and Perimeter, circumference</td>
</tr>
<tr>
<td>22</td>
<td>Pythagorean Thm, Composite Shapes, alternate area formulas</td>
</tr>
<tr>
<td>23</td>
<td>Surface area, volume</td>
</tr>
<tr>
<td>24</td>
<td>Surface area, volume</td>
</tr>
<tr>
<td>25</td>
<td>Scale factor</td>
</tr>
<tr>
<td>26</td>
<td>Statistics</td>
</tr>
<tr>
<td>27</td>
<td>TEST 3</td>
</tr>
<tr>
<td>28</td>
<td>Probability</td>
</tr>
<tr>
<td>29</td>
<td>Probability/Final Review</td>
</tr>
</tbody>
</table>

FINAL EXAM – Tuesday, December 10th from 10:30am-12:30pm

*The schedule listed below is tentative and subject to adaption. For current updated information, contact the instructor.*

---

5. http://www.angelo.edu/content/files/14197-op-1011-grading-procedures