Intermediate Mathematics for Elementary Teachers

Course Description
Elementary concepts of geometry and measurement, probability, and statistics with an emphasis on problem solving and critical thinking

Course Prerequisites
MTH127.

Course Time and Meeting Place
- MTH 128 Section 001 meets in Math 205 at 12:30-1:45 TR
- MTH 128 Section 002 meets in Math 205 at 2:00-3:15 TR

Instructor
- Dr. W. D. Clark  Department of Mathematics and Statistics
- Office: Math 314
- TEL: Ofc (936) 468-1750  Home (936) 569-0522  Cell (936) 554-3371
- Email: clark@sfasu.edu  or wcblark23@gmail.com
- Office Hours: Monday 10-11, 1-2 and Wednesday 10-11, 1-2
  Additional office hours by appointment

Course Goals
- To understand the mathematics essential to successful teaching in the elementary school classroom.
- To acquire a foundation in geometry, statistics, probability, and counting.
- To gain skill in problem solving and critical thinking.

Learning Objectives
At the end of MTH 128, a student who has studied and learned the material should be able to:
- Use problem solving strategies to model, construct, and solve problems within and outside mathematics
- Use technology to explore geometric concepts and perform geometric constructions and transformations
- Apply spatial visualization skills to construct, transform, and measure two and three dimensional objects
- Apply concepts of congruence and similarity
- Understand measurement as a process and apply basic concepts of measurement to real world settings
- Use basic counting principles and apply concepts of probability theory
- Apply basic concepts of statistics, including data classification, collection, and analysis

There are no specific program learning outcomes for this major addressed in this course. It is a general education core curriculum course and/or a service course.

Textbook and Materials
A compass used for drawing and a simple four function calculator with square root capability will be needed for this course. The textbook for this course is Mathematics for Elementary Teachers

The Classroom
Any questions you ask in class will likely be ones that other students will want answered as well, so get over any hesitation you might have and ask questions as the material is presented. You will not be penalized for doing this, no matter how trivial or simple you think your questions might seem. Remember, the class is being held for you to learn the material, not just to give you a time to copy notes off a blackboard, so be sure to get help when you need it and stay involved in your class.

Calculators
A simple four-function calculator with square root capability will work fine for this course. We encourage you to bring your calculator to class with you every day. However, you should not rely on computers and calculators to such an extent that they keep you from developing your own skills. Technology should be used as an aid, but without a good understanding of the underlying mathematical concepts, the calculator will quite happily mislead you without your even knowing it. In general, technology is a good thing, but as with everything, sometimes too much of a good thing can lead to problems. For this reason, we may not allow calculators to be used on certain exams or parts of certain exams. You may not use your cellphone or your iPod/iPad in class for a calculator.
Grading and Exams

There will be three 75 minute exams and a final exam. Your course grade will be determined as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Date</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hmk /quiz/Dg</td>
<td>Book assignment due dates on calendar</td>
<td>15%</td>
</tr>
<tr>
<td>TEKS Writing Assignment</td>
<td>Due on the class day following Exams 1, 2, and 3. Namely, Sept. 19, Oct. 17, and Nov. 19</td>
<td>5%</td>
</tr>
<tr>
<td>Exam I</td>
<td>Tuesday 9/17/19</td>
<td>20%</td>
</tr>
<tr>
<td>Exam II</td>
<td>Tuesday 10/15/19</td>
<td>20%</td>
</tr>
<tr>
<td>Exam III</td>
<td>Thursday 11/14/19</td>
<td>20%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>Monday, Dec. 9, 2019 6:00-8:30pm Math Room 101</td>
<td>20%</td>
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</tbody>
</table>

Semester numerical scores will be converted into letter grades according to the following method.

<table>
<thead>
<tr>
<th>Range of numerical values</th>
<th>Corresponding Letter</th>
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<tbody>
<tr>
<td>90-100</td>
<td>A</td>
</tr>
<tr>
<td>80-89</td>
<td>B</td>
</tr>
<tr>
<td>70-79</td>
<td>C</td>
</tr>
<tr>
<td>60-69</td>
<td>D</td>
</tr>
<tr>
<td>0-59</td>
<td>F</td>
</tr>
</tbody>
</table>

When we calculate your final grade at the end of the course, we will calculate a score on a 0-100 point scale using the scores that you have obtained during the course, and the grade breakdown given above. Your course grade will then be obtained using this table.

Resurrection Policy. If you score 70 or better on the final exam then your lowest grade on exam I, II or III, will be replaced by your final exam grade. The resurrection policy does not apply to your homework grade.

Important Information about the Math 128 Final Exam

The final exam for all MTH 128 is on Monday, Dec. 9, 2019, 6:00-8:30pm in the Math bldg. room 101. Cell phone use is not permitted in or out of the classroom during all exams. If you bring your cell phone or watch phone to the exam venue, please remember to turn it off and put it in your backpack. Violation of this policy will be considered as academic dishonesty and dealt with accordingly. You will not be permitted to use your cell phone as a calculator, so plan ahead.

Exam Policy

Exams are scheduled far in advance, and it is impossible to move the time or date. However, in rare cases where it is impossible for an individual to take the exam at the scheduled time, we will work with you to make other arrangements. Exceptions for taking the exam out of sequence are the following:

1. A medical excuse. Please provide proper documentation according to university rules.
2. A University sponsored event such as an athletic tournament, a play, or a musical performance. Your coach or director must contact us in advance. Athletic practices and rehearsals do not fall into this category.
3. A religious holiday. Please send a short email explaining the situation.
4. Extreme hardship such as a family emergency. Please have the proper university office notify us.

The above are the only allowable excuses for taking the exam before the scheduled time. Under no circumstances do we give late exams. Since we can only accommodate a limited number of students taking the exam at an earlier time, please make sure that you fall into one of the above categories before you contact us. If you miss an exam due to illness or a family emergency, you will not be penalized. Your final exam grade will also count as the grade for a test you miss. If you have a conflict with the final exam (other than another exam at the same time), you must contact the Registrar. Only the Registrar can schedule an out-of-sequence final exam.
Homework  Homework will be assigned from our textbook and graded. Your daily average is based on your graded homework, any daily quizzes given, and any daily grades given.

Making Your Homework Easy to Read and Easy to Grade
- Make sure your handwriting is legible.
- Homework with multiple pages should be stapled in the upper left-hand corner.
- Use only the front side of your paper for your homework assignments.
- In the upper right-hand corner you should write (in this order):
  - Your name
  - MTH 128 section number (001 or 002)
  - The due date of the homework
- Problems should be clearly labeled and numbered on the left side of the page. There should also be a visible separation between problems. Don't forget to staple your homework together if you are submitting several pages.
- Use only the front side of your pages. Your homework will not be graded if you use both sides of your pages.
- You should leave the entire left margin blank so that the grader can use this space for scoring and comments.
- To ensure that each problem is graded, problems and solutions should be written in the order that they are assigned.
- It is good practice to first work out the solutions to homework problems on scratch paper, and then to neatly write up your solutions. This will help you turn in a clean finished product.
- You should write up your solutions by yourself. You should always acknowledge any help received at the top of the assignment or in the right-hand margin.
- Homework is to be turned in at the beginning of class.
- Late homework is not accepted as is homework that does not follow the guidelines above.

Getting Help with Math 128
- Individual and group help is available at the Academic Assistance and Resource Center, which is located on the first floor of the Steen Library.
- Take advantage of office hours and email. I will make every effort to answer emails within 24 hours on weekdays and within 48 hours on weekends. Please use the clark@sfasu.edu email to receive the quickest response.

Add/Drop Policy
The Add/Drop Policy can be found at http://www.sfasu.edu/policies/add_drop.asp

Attendance Policy
Regular attendance is expected in Math 128. Attendance and Excused Absences Policy can be found at http://www.sfasu.edu/policies/class_attendance_excused_abs.asp

Credit Hours 3-Explanation
The following is an excerpt from SFA Policy 5.4:

The federal definition of a credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency that reasonably approximates:

1. Not less than one hour of classroom or direct faculty instruction and a minimum of two hours out-of-class student work each week for approximately fifteen weeks for one semester or trimester hour of credit, or 10 to 12 weeks for one quarter hour of credit, or the equivalent amount of work over a different amount of time, or;

2. At least an equivalent amount of work as outlined in item 1 above for other academic activities as established by the institution including laboratory work, internships, practica, studio work, and other academic work leading to the award of credit hours.

To this end, all students in courses offered by the Department of Mathematics and Statistics that wish to be successful should plan to spend a minimum of two hours outside of class for every credit hour associated with this course. Expected activities to be completed in the time outside of class include reviewing notes from previous class meetings, reading assigned course resources, completing all assigned exercises and projects, and performing periodic assessment preparation.

See http://www2.sfasu.edu/math/docs/syllabi/MTH128Syllabus.pdf for elements common to all sections.