Welcome to MATH 1351 !!!!

Instructor
Dr. Brian Church
Brian.Church@sfasu.edu
Bush Math 322  |  (936) 468.1582

Office Hours
Monday/Wednesday 9:00am-11:00am
Friday 11:00am-12:00pm
If you cannot make it to office hours, please email me to set up an appointment

Class Meeting Time
Bush Math 209: Monday/Wednesday 2:30pm - 3:45m

Course Description
Elementary concepts of geometry and measurement, probability, and statistics with an emphasis on problem solving and critical thinking. For a more detailed course description, Student Learning Outcomes, and Exemplary Educational Objectives, go to https://math.sfasu.edu/docs/syllabi/MATH1351Syllabus.pdf

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 thinking.

Text and Materials:
The textbook for this course is
Mathematics for Elementary Teachers, Beckmann 0321901231 Pearson 6th
• A compass used for drawing circles, scissors, and ruler (straight edge) are required for the activities and exams in this course. You will also be able to use the website geogebra.com in lieu of a physical compass.
• A scientific or graphing calculator with a pi and square root key is needed in this course. However, you should not rely on computers and/or 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.

Getting Help with MATH 1350
• AARC
• SI Sessions
• Take advantage of office hours.
Grading Requirements

<table>
<thead>
<tr>
<th>Component</th>
<th>Due</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework/ Prep assignments</td>
<td>Due according to dates on calendar on D2L</td>
<td>20%</td>
</tr>
<tr>
<td>Exam 1</td>
<td>See Course Calendar</td>
<td>20%</td>
</tr>
<tr>
<td>Exam 2</td>
<td>See Course Calendar</td>
<td>20%</td>
</tr>
<tr>
<td>Exam 3</td>
<td>See Course Calendar</td>
<td>20%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>Friday, May 10th 8:00 am-10:00 am</td>
<td>20%</td>
</tr>
</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>
</tr>
</thead>
<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 your final grade at the end of the course is calculated, it will be a score on a 0-100 point scale will be assigned 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.

There is NO extra credit in this course.

**Homework and Prep Assignments**

Homework will be assigned from our textbook and turned in every Friday by 11:59 pm. Prep assignments are assigned for most class periods are to be turned in by 11:59 pm the evening before the assigned class meeting. This will fall on Sunday and Tuesday evenings. These dates may be shifted due to holiday/days off in the university calendar. See D2L for official dates.

Prep Assignments should reflect the following requirements.

1) Read the section assigned and look over the practice exercises.
2) Complete a KWL chart over the material.
3) The KWL chart should be completed using full sentences and a brief paragraph should be included for each component.
4) Submissions can be typed or handwritten and should be submitted on D2L via a PDF or DOCX file.
5) Do not spend more than one hour per prep assignment. At this point mastery of the material is not required, but rather an introduction to get you situated in the content.
6) See the Rubric on D2L for the grading information.

All homework should reflect the following requirements.

1) All assignments should be turned in on D2L as a single PDF on time. Late homework will not be accepted.
2) Make sure your handwriting and any drawings are legible.
3) To ensure that each problem is graded, problems and solutions should be written in the order that they are assigned.
4) 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.

5) You should write up your solutions by yourself.

6) Individual and group help is available online through the Academic Assistance and Resource Center (AARC).

7) Take advantage of the instructor by stopping by office hours, emailing questions, or setting up appointment(s) for ZOOM meeting(s).

**Exams**  
There will be three 75-minute exams during the semester and a 2-hour comprehensive final exam.

**Exam Corrections**  
Following each exam there will be an exam corrections assignment. These assignments vary based on each exam. An assignment sheet will be given out after every exam with the details.

**Exam Requirements**  
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 Office of Student Rights and Responsibility 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.

**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 of a blackboard, so be sure to get help when you need it and stay involved in your class. **Please be respectful of your fellow students and your instructor. Cell phone use and texting are not allowed in class. Remember to turn your cell phone off or place it in quiet mode before entering the classroom.**
**Attendance and Participation Requirements**
This course is designed to be discussion heavy with the majority of the discussion lead by students. More information about absences can be found of the Dean of Student’s website: [https://www.sfasu.edu/thehub/sos/notification-request](https://www.sfasu.edu/thehub/sos/notification-request).

**Academic Integrity**
*The Code of Student Conduct and Academic Integrity* outlines the prohibited conduct by any student enrolled in a course at SFA. It is the responsibility of all members of all faculty, staff, and students to adhere to and uphold this policy.

Articles IV, VI, and VII of the new Code of Student Conduct and Academic Integrity outline the violations and procedures concerning academic conduct, including cheating, plagiarism, collusion, and misrepresentation. Cheating includes, but is not limited to: (1) Copying from the test paper (or other assignment) of another student, (2) Possession and/or use during a test of materials that are not authorized by the person giving the test, (3) Using, obtaining, or attempting to obtain by any means the whole or any part of a non-administered test, test key, homework solution, or computer program, or using a test that has been administered in prior classes or semesters without permission of the Faculty member, (4) Substituting for another person, or permitting another person to substitute for one’s self, to take a test, (5) Falsifying research data, laboratory reports, and/or other records or academic work offered for credit, (6) Using any sort of unauthorized resources or technology in completion of educational activities.

Plagiarism is the appropriation of material that is attributable in whole or in part to another source or the use of one’s own previous work in another context without citing that it was used previously, without any indication of the original source, including words, ideas, illustrations, structure, computer code, and other expression or media, and presenting that material as one’s own academic work being offered for credit or in conjunction with a program course or degree requirements.

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**Students with Disabilities**
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Student Wellness and Well-Being
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If you are experiencing concerns, seeking help, SFA provides a variety of resources to support students’ mental health and wellness. Many of these resources are free, and all of them are confidential.

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SFA Human Services Counseling Clinic Human Services, Room 202  
www.sfasu.edu/humanservices/139.asp, 936.468.1041

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Location: corner of E. College and Raguet St.

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Crisis Resources:
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- National Suicide Crisis Prevention: 9-8-8
- Suicide Prevention Lifeline: 1.800.273.TALK (8255)
- johCrisis Text Line: Text HELLO to 741-741
Course description: Elementary concepts of geometry and measurement, probability, and statistics with an emphasis on problem solving and critical thinking.

Credit hours: 3

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.

Course Prerequisites and Corequisites: Math 1350.

Course outline:

<table>
<thead>
<tr>
<th>Geometric Figures: Definitions, Properties, and Relationships</th>
<th>Approximate time spent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Build basic vocabulary of geometric figures</td>
<td>20%</td>
</tr>
<tr>
<td>Analyze properties of two and three dimensional figures</td>
<td></td>
</tr>
<tr>
<td>Explore relationships between lines, planes, polygons, and solids</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Geometry and Measurement</th>
<th>30%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investigate standard and nonstandard units of measure</td>
<td></td>
</tr>
<tr>
<td>Explore linear measurement: perimeter, circumference</td>
<td></td>
</tr>
<tr>
<td>Explore area of regular and irregular shapes</td>
<td></td>
</tr>
<tr>
<td>Use the Pythagorean Theorem appropriately</td>
<td></td>
</tr>
<tr>
<td>Explore measures of surface area and volume: lateral surface area, base, height, slant height</td>
<td></td>
</tr>
<tr>
<td>Investigate temperature as a form of measurement</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Geometry of Congruence, Similarity, and Transformations</th>
<th>20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investigate properties of congruent and similar figures</td>
<td></td>
</tr>
<tr>
<td>Explore ratio and proportion as applied to geometric figures</td>
<td></td>
</tr>
<tr>
<td>Perform basic constructions using Mira, paper folding, compass, straightedge, and technology (when applicable)</td>
<td></td>
</tr>
<tr>
<td>Perform rigid and similarity transformations on a variety of figures</td>
<td></td>
</tr>
<tr>
<td>Explore properties and outcomes of rigid transformations</td>
<td></td>
</tr>
<tr>
<td>Explore types of symmetry</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Statistics</th>
<th>15%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collect, organize, analyze, and present real data</td>
<td></td>
</tr>
<tr>
<td>Utilize appropriate types of graphs for various data types</td>
<td></td>
</tr>
<tr>
<td>Interpret graphs and tables</td>
<td></td>
</tr>
<tr>
<td>Investigate the use of graphs to distort statistics</td>
<td></td>
</tr>
<tr>
<td>Analyze measures of central tendency and dispersion</td>
<td></td>
</tr>
</tbody>
</table>
Math 1351 – Intermediate to Mathematics for Elementary Teachers
Syllabus Continuation

- **Counting Principles and Probability**
  - Explore basic counting principles
  - Understand and utilize factorial notation
  - Explore the language of uncertainty: sample space, outcome, event, equally likely, mutually exclusive events, certain and impossible events
  - Investigate experimental probability: simulation
  - Determine Expected Value

**Student Learning Outcomes (SLO):** At the end of MTH 128, a student who has studied and learned the material should be able to:

1. Use problem solving strategies to model, construct, and solve problems within and outside mathematics.
2. Use technology to explore geometric concepts and perform geometric constructions and transformations.
3. Apply spatial visualization skills to construct, transform, and measure two and three dimensional objects.
4. Apply concepts of congruence and similarity.
5. Use mathematical reasoning to develop strategies of conjecture and justification, leading to geometric proof.
6. Understand measurement as a process and apply basic concepts of measurement to real world settings.
7. Use basic counting principles and apply concepts of probability theory.
8. Apply basic concepts of statistics, including data classification, collection, and analysis.
9. Understand geometry as an axiomatic system.

*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.*

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**Withheld Grades Semester Grades (SFA Policy 5.5)**

Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated
course for the purpose of computing the grade point average. The circumstances precipitating the request must have occurred after the last day in which a student could withdraw from a course. Students requesting a WH must be passing the course with a minimum projected grade of C. For additional information, go to [https://www.sfasu.edu/policies/course-grades-5.5.pdf](https://www.sfasu.edu/policies/course-grades-5.5.pdf).

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- Crisis Text Line: Text HELLO to 741-741

**Acceptable Student Behavior**
Classroom behavior should not interfere with the instructor’s ability to conduct the class or the ability of other students to learn from the instructional program (see the [Student Conduct Code, policy 10.4](http://www.sfasu.edu/policies/student-conduct-code-policy-10.4)). Unacceptable or disruptive behavior will not be tolerated.
tolerated. Students who disrupt the learning environment may be asked to leave class and may be subject to judicial, academic or other penalties. This prohibition applies to all instructional forums, including electronic, classroom, labs, discussion groups, field trips, etc. The instructor shall have full discretion over what behavior is appropriate/inappropriate in the classroom.

Date of document: 08/23/2023