About Your Instructor

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- **Phone:** 936.468.1433
- **Offices:** Math Building 310, STEM Building 310
- **Office Hours:** 10-11am MTWRF in Math Building 310, or by appointment

About This Course

**Class Meetings and Location:** 9-9:50am MWF in Math Building Room 204.

**Required Materials:**

- **Text and online homework software:** A Survey of Mathematics, 10th edition, by Angel et. al., and MyMathLab access. I recommend that you purchase the SFA Second Custom Edition with MyMathLab access (ISBN 1323403841). The custom edition is a paperback edition that contains only the chapters that we will cover. Alternatively, you may purchase the complete book (new or used) and MyMathLab access, or you can access the ebook version of the text when you purchase only MyMathLab access.
- **Calculator:** at least a scientific calculator is required, but CAS calculators are not permitted on tests. TI-30 XS Multiview, TI-34 Multiview, or TI-36Pro strongly recommended.
- **Computer:** you will also need an internet capable laptop, tablet, or smart phone to bring to class. You will need to be able to access Microsoft Office 365 apps and Microsoft Teams on this device. Access to Microsoft Office outside of class will also be necessary.

**MyMathLab Course ID Code:** beavers66428

**Prerequisites:** TSI Complete or Exempt, or a grade of C or higher in MTH 099

**Course Description:** Provides an introduction to mathematical thinking emphasizing analysis of information for decision-making.

**Course Overview:** Communication, critical thinking, and quantitative reasoning skills are greatly prized in this world. In this course, we will see how a mathematical frame of mind can help develop those skills and how mathematics can be found in nearly every field of human endeavor. Besides general classroom discussions of where math appears in society, we will explore seven primary topics: set theory, logic, financial math, probability, statistics, graph theory, and voting theory. In order to make this process easier and to help you develop useful skills for life outside of college, this course will take advantage of 21st century technological tools.

Learning Objectives and Core Curriculum

**Program Learning Outcomes:** There are no specific program learning outcomes for the mathematics major addressed in this course. It is a general education core curriculum course and/or a service course.

**Student Learning Outcomes:** At the end of MTH 110, a student who has studied and learned the material should be able to:
1. Demonstrate understanding of elementary logic in order to make persuasive arguments, understand conflicting reports, identify faulty reasoning, detect bias, assess risk, suggest alternatives, and draw solid conclusions.

2. Use sets as a tool for organizing information, recognize that relationships between and among sets provide the foundation for many valid arguments.

3. Use counting techniques, estimation, proportional reasoning, percents, and unit conversions to more ably interpret numerical quantities that occur in everyday life.

4. Demonstrate understanding of basic probability and how it is involved in virtually every decision we make – either explicitly or implicitly.

5. Use statistics to critically evaluate and interpret statistical studies and corresponding reports.

6. Use functions to model various relationships with enough precision to gain insight into how things work and to make reasonable predictions about the future.

**General Education Core Curriculum:** The Texas Higher Education Coordinating Board has identified six core learning objectives: Critical Thinking Skills, Communication Skills, Empirical and Quantitative Skills, Teamwork, Personal Responsibility, and Social Responsibility. SFA is committed to the improvement of its general education core curriculum by regular assessment of student performance on these six objectives.

The university will not be using any of the assignments of this course as formal assessment of the core curriculum learning objectives this semester.

<table>
<thead>
<tr>
<th>Core Objective</th>
<th>Definition</th>
<th>Course Assignment Title</th>
<th>Date Due in D2L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical Thinking Skills</td>
<td>To include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Communication Skills</td>
<td>To include effective development, interpretation and expression of ideas though written, oral, and visual communication.</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Empirical and Quantitative Skills</td>
<td>To include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Course Requirements**

Your course grade will be calculated based on individual and group assignments and in-class exams.

**Course Outline and Topics:**

<table>
<thead>
<tr>
<th>TOPICS</th>
<th>APPROXIMATE DATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ch 1: Critical Thinking Skills</td>
<td>8/27-9/3</td>
</tr>
<tr>
<td>Ch 2: Sets</td>
<td>9/5-9/14</td>
</tr>
<tr>
<td>Test 1</td>
<td>9/17</td>
</tr>
<tr>
<td>Ch 3: Logic</td>
<td>9/19-10/1</td>
</tr>
<tr>
<td>Ch 10: Consumer Math</td>
<td>10/3-10/17</td>
</tr>
<tr>
<td>Test 2</td>
<td>10/19</td>
</tr>
<tr>
<td>Ch 11: Probability</td>
<td>10/22-11/2</td>
</tr>
<tr>
<td>Ch 12: Statistics</td>
<td>11/5-11/14</td>
</tr>
<tr>
<td>Test 3</td>
<td>11/16</td>
</tr>
</tbody>
</table>
### Grading Policy:

**Computation of Course Grade**

Your course grade will be based on the weighted average of the components listed above:

- **Individual and group assignments (20%)**: Each day you will have work to do in class, to prepare for the next class, and to review from the previous class. You will also have some assignments that span multiple days and concepts. Some assignments may be assigned to groups. Some assignments will be given in *MyMathLab*, while others may be on paper or in *Microsoft Teams*. All assignment scores will be recorded in D2L. Note: Per SFA policy 5.4, you should expect that assignments and review should take two hours of sustained work for each hour of class. More or less time may be needed depending on the skills and preparation you bring to the course from your previous studies.

- **Tests (4 at 20% each)**: You will have four in-class exams, one after each two chapters covered. The final exam will be comprehensive.

### Grading Scale

Exams and your final course letter grade will be graded on the standard “10-point” scale based on the percentage (rounded to the nearest percentage) of total points earned by the student on the exam:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90-100%</td>
</tr>
<tr>
<td>B</td>
<td>80-89.5%</td>
</tr>
<tr>
<td>C</td>
<td>70-79.5%</td>
</tr>
<tr>
<td>D</td>
<td>60-69.5%</td>
</tr>
<tr>
<td>F</td>
<td>0-59.5%</td>
</tr>
</tbody>
</table>

Assignments will be graded holistically on a 10-point scale based on completion and performance and the mean converted to an overall percentage. The various scores are described below; to summarize, a “passing” score is a 7 or higher and a “failing” score is a 6 or lower. Each score will take execution, communication, and correctness into account. I am using this system so that I can better communicate to you whether you understand the material well enough or not. Your primary goal is to earn a 7 or better on each assignment. In addition, for any group assignments, participation by each group member will be considered.

<table>
<thead>
<tr>
<th>Score</th>
<th>Grade</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5</td>
<td>F</td>
<td>Failing This score means that either you did not complete the assignment, or your mathematics or communication shows serious and fundamental errors. You need to review prerequisite material and the basics of what was being assessed. You must complete every assigned problem in order to score higher than a 5.</td>
</tr>
<tr>
<td>6</td>
<td>D</td>
<td>Deficient This score means that you show some understanding but the flaws in mathematics or communication are not sufficient to be considered passing.</td>
</tr>
<tr>
<td>7</td>
<td>C</td>
<td>Average This score means that, overall, you understand the material well enough to pass, but you made several substantial mistakes in mathematics or you communicated poorly.</td>
</tr>
<tr>
<td>8</td>
<td>B</td>
<td>Good This score means that, overall, you understand the material well, but made minor mistakes in the mathematics or communication.</td>
</tr>
</tbody>
</table>
9 or 10
A
Outstanding

These score means that your mathematics and communication are flawless or nearly flawless.

Note that certain mistakes by themselves will automatically drop you to a 6 or lower because they are common but fundamental errors that wreck havoc on the truth of your work or fundamentally change the difficulty level of the task at hand. Also, be sure to think about what your writing communicates to a reader. I grade what you have said, not what you meant to say.

General Course Policies

- Please don’t hesitate to contact me if you have questions. You may e-mail me, send a chat message in Microsoft Teams, call my office, leave a voice mail, or use chat in D2L. I will be in my office during schedule office hours if you’d like to drop by for help. I will also be glad to schedule meetings at other times; as half my duties are technical support for the College of Sciences and Mathematics, I am usually on campus 9-5 every weekday.
- I will likely send e-mails to the entire class, so please check your SFA (TITAN) e-mail address regularly or forward your messages to an account you check frequently. I will also send announcements via Microsoft Teams. I would also highly recommend that you sign up for JackText or update your JackText preferences.
- Cheating is a most serious offence, with a wide range of penalties up to and including expulsion from the university. See also the official SFA policy later in the syllabus. Every faculty member has a different policy on what he or she considers cheating or getting unauthorized help. Be sure to talk to me and your other professors about what they consider cheating. Here are some of the ways I define cheating (academic dishonesty) for the various types of work in this class.
  - Assignments: I expect your work to reflect the results of only your independent mental effort and communication skills. Copying or paraphrasing, in whole or in part, from any sources, including your fellow graduate students, without citation or without permission is considered academic dishonesty. You may use content from course materials (class notes, the textbook) without attribution. You may work with other students on assignments where I explicitly say that it is OK.
  - Exams: You may may use calculators (for computations, if you wish) on exams, but no other resources unless I specify before the exam.
- Make sure you have read this entire syllabus carefully because you are responsible for what lies within it.

Classroom, Attendance, & Makeup Policies

- Students are expected to attend every class meeting, arriving on time and participating for the duration of the scheduled class time.
- Please let me know ahead of time if you need to leave class. In cases where you do need to leave early and have worked out the details with me, please sit close to the door so as not to disrupt anyone on your way out.
- I reserve the right to expel you from class if you are not actively participating and attentive. Use of anything, including cell phones and electronic devices, for purposes other than those related to and permitted for the current class period is prohibited. If you are expelled from class, you will be counted absent for the day and receive a zero for any in-class assignments.
- It is your responsibility to help make the class a welcoming learning environment. Please be respectful and do not be a distraction to your classmates, who paid just as much as you for this course. I will do my best to politely enforce this.
- Catching up due to an unexcused absence is not my responsibility; it is yours. In the case that you miss a class, it is a good idea to have exchanged emails and/or phone numbers with some of your classmates on the first day of class so you can get what you missed.
- If you miss class, you are responsible for obtaining all handouts and/or announcement information. Check your campus email regularly or forward your campus email to an email address that you check regularly. I will post handouts and/or homework assignments in D2L, MyMathLab, and in Microsoft Teams.
- Deadlines, once finally set, will not be changed or extended except for a documented excused absence. In-class assignments cannot be made up because they are meant to incorporate the atmosphere and reactions of the live classroom. Out-of-class assignments can be made up with permission of the instructor after giving a valid excuse. Make-up tests will be given only in extreme circumstances with a documented excuse. In order to be fair for any in-class assignments missed due to an excused absence, I will drop some of your lowest assignment grades at the end of the semester or offer a bonus assignment.
There will be no bonus points awarded in this class, except perhaps a bonus assignment or to if the flow of the class warrants it.

The SFA Way

"...striving for personal excellence in everything that we do."

At Stephen F. Austin State University, our faculty, staff, alumni and students believe in doing things "The SFA Way." We expect the best from ourselves and from each other, and we hold each other accountable when we fail to maintain these standards.

Root Principles

Grounded in the five "Root Principles" below, members of the SFASU community seeks to strive for personal excellence in everything that we do.

The Principle of Respect:

Lumberjacks command respect and treat others with respect • They are considerate of others and tolerant of differences • They demonstrate respect for those around them by avoiding the use of offensive or profane language • They do not threaten or harm anyone and deal peacefully and civilly with conflict.

The Principle of Caring:

Lumberjacks think of the needs of others and seek to improve the quality of life of those around them • They are compassionate, empathic and kind • They respond with humility to those they have helped and express gratitude freely to those who help them • Lumberjacks prepare themselves to become leaders in their communities and workplaces • They dedicate themselves to excellence in their chosen field of study and to using what they learn in the service of others.

The Principle of Responsibility:

Lumberjacks do what is right • They persevere in times of adversity • Through self-control and self-discipline, they strive to do their best • Lumberjacks challenge each other to exceed expectations • They are active learners both inside and outside of the classroom • They are reliable; they do what they say they will do • Lumberjacks hold themselves accountable for their decisions.

The Principle of Unity:

Lumberjacks are loyal to their friends, family, university, state and country • Lumberjacks stand together against any adversary • They recognize that though we are very different from one another, we are united by the Lumberjack Spirit. Lumberjacks seek to understand the people and world around them • When one lumberjack fails, all fail • When one lumberjack succeeds, all succeed.

The Principle of Integrity:

Lumberjacks have the courage to do what is right, even when it is hard or unpopular • They respond to each situation with steadfast values that are not subject to change based on the actions of others • They seek opportunities to practice effective and ethical leadership • Lumberjacks are honest; they do not deceive, cheat or steal • Lumberjacks stand up for those who cannot stand up for themselves • As lifelong learners, lumberjacks are committed to continuously improving themselves.

Academic Integrity (A-9.1)

Academic integrity is a responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism.

Definition of Academic Dishonesty

Academic dishonesty includes both cheating and plagiarism. Cheating includes, but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) falsification or invention of any information, including citations, on an assignment; and/or, (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism include,
but are not limited to: (1) submitting an assignment as if it were one's own work when, in fact, it is at least partly the work of another; (2) submitting a work that has been purchased or otherwise obtained from the Internet or another source; and, (3) incorporating the words or ideas of an author into one's paper or presentation without giving the author due credit.

Please read the complete policy at http://www.sfasu.edu/policies/academic_integrity.asp.

Withheld Grades Semester Grades Policy (A-54)

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.

Students with Disabilities

To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodations. For additional information, go to http://www.sfasu.edu/disabilityservices/.

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 D-34.1). Unacceptable or disruptive behavior will not be 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. Students who do not attend class regularly or who perform poorly on class projects/exams may be referred to the Early Alert Program. This program provides students with recommendations for resources or other assistance that is available to help SFA students succeed.

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