MATH 0199/1332 Mathematics in Society Co-requisite
Course Policy Sheet
Fall 2021

Instructor: John Sullivan
Email: sullivanjb1@sfasu.edu
Office: MATH 345
Phone: 936-468-1547 (office)
936-468-3805 (Math Dept.)

Class meeting times and rooms:
Section .033: MW: 1:00 – 2:15 PM, MATH 212, TR: 12:30 – 1:45 PM, MATH 212
Section .035: MW: 2:30 – 3:45 PM, MATH 212, TR: 2:00 – 3:15 PM, MATH 212
Section .036: MWF: 10:00 – 10:50 AM, MATH 212, TR: 9:30 – 10:45 AM, MATH 212

Office Hours: MW: 11:00 AM – 12:00 PM
Zoom (by appointment)

Required Materials
Book: A Survey of Mathematics with Applications, 10th Ed. by Angel, Abbott, and Runde
The recommended (and least expensive) way to get access to the textbook is by purchasing access to the Pearson MyLab Math website, which includes an embedded ebook version of the text. You may purchase this access kit from local bookstores (around $80) or directly from Pearson (around $70). Make sure you are buying the correct item, look for this description: “MyLab Math with Pearson eText – 18 Week Instant Access -- for A Survey of Mathematics with Applications, 10th Edition”, with ISBN-13: 9780135963333

MyLab Math Account: Online homework is done through www.mlm.pearson.com.
To create a MLM account, students will need:
1. a valid email address (use your SFA email)
2. an access code (bundled with new textbooks, or may be purchased separately online)
3. course id (make sure to use the correct code for your class)
   Section .033: sullivan71521
   Section .035: sullivan49745
   Section .036: sullivan19667

Calculator: You may use a graphing calculator for this course, but you may not use a calculator equivalent to a Ti-89 or higher. A Ti-30XS Multiview is recommended (retails for under $20)

Remind App: Optionally, we can communicate through text with the Remind app. Send the message below to be enable texting.
   Section .033: text “@1332se” to 81010
   Section .035: text “@1332sec” to 81010
   Section .036: text “@1332sec0” to 81010

Tutoring
● There are multiple options for getting help outside of class. You have already paid for these resources with your tuition money, so take advantage of them!

   1. Instructor office hours (see above) and text/email
2. “Co-Req Corner”: Room 305 is reserved exclusively for students enrolled in Co-requisite courses like ours. The tutors are all graduate students who have experience with the course material. Tutoring times will be posted during the first week of class.

3. The Academic Assistance Resource Center (AARC) in the Steen Library offers both walk-in tutoring (no appointment needed). Other tutoring options are being finalized and will be announced in class.

**Grading Policy**

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
<th>Course Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>MyLab Math (Homework and Summary Assignments)</td>
<td>15%</td>
<td>90% - 100%</td>
</tr>
<tr>
<td>Regular Exams (3 at 20% each)</td>
<td>60%</td>
<td>80% - 90%</td>
</tr>
<tr>
<td>Final Exam (Comprehensive)</td>
<td>25%</td>
<td>70% - 80%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>60% - 70%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&lt; 60%</td>
</tr>
</tbody>
</table>

**Course Grade**

- A: 90% - 100%
- B: 80% - 90%
- C: 70% - 80%
- D: 60% - 70%
- F: < 60%

**How Your Course Grade Will Be Computed**

**MyLab Math Homework and Summary & Review Assignments**

- Each textbook section covered in the course has a corresponding homework assignment on MyLab Math. Each assignment consists of 10 – 20 questions, and students (usually) have three attempts at the correct answer per question. Generally, the due date for all homework assignments covered in a particular week will be **Monday of the following week, at 11:59 PM, but there are some exceptions to this rule.** Check the calendar on MyLab Math frequently for due dates.

- In addition to MLM homework, there will be five Chapter Summary and Review assignments. The Chapter Summary and Review assignments are intended to serve as a review for the exam. As such, they **will not include the various help resources** that are available on the normal homework. Note: though different, these Chapter Summary and Review assignments are found under the “Homework” tab on MyLab Math, will become available one week before the exam day, and will be due **at 11:59 PM the night before each exam.**

- To calculate your overall MyLab Math grade (15% of course grade), first find your average homework grade (drop the 4 lowest grades), then your average summary assignment grade (drop lowest grade), and finally, find the average of those two values.

**Exams**

- Three exams will be given over the course of the semester (approximate dates listed in calendar). Each exam grade comprises 20% of a student’s overall course grade. A student’s final exam grade will replace their lowest regular exam grade (provided that the final exam grade is higher). However, your final exam grade can only replace one regular exam; if, for example, a student misses two regular exams, one of the scores will be an irreplaceable zero.

- Exam procedure: during exams, you may not (1) share calculators, (2) use your own scratch paper (I will provide scratch paper for you), (3) use your phone or other device, (4) use
headphones or earbuds (foam earplugs are ok), or (5) use any unapproved notes or formula sheets.

- The final exam for this course will be given as scheduled on the university calendar, in our normal classroom. No alternate arrangements will be allowed.

**General Policies and Information**

- We will sometimes work in groups, which can be a noisy affair. Please keep in mind the other groups (and other classrooms) and keep your talking to a reasonable volume.

- I want to create a relaxed classroom environment, where students feel comfortable asking questions. You should always feel free to stop me during lecture to ask for clarification on some concept that is confusing you; there are no dumb questions. Students who disrespect or belittle their classmates will be asked to leave.

- To communicate with students, either individually or as a group, I may use the Remind app, email, or the News feature on the course D2L page. Make sure you have configured your personal D2L settings so you receive these notifications (you can configure to D2L to send you a text message whenever I post a news item, post an exam grade, etc)

**University Policies**

For further information on the standard university policies below, consult the common syllabus for MATH 1332, which can be found at http://www3.sfasu.edu/math/docs/syllabi/MATH1332Syllabus.pdf

- Withheld Grades *Semester Grades Policy (A-54)*
- Students with disabilities
- Acceptable Student Behavior
- Academic Integrity (Policy A-9.1)

**Important Dates to Remember, Fall 2021 Semester**

- Monday, 8/23: Classes begin
- Thursday, 8/26: Last day that students can add themselves to a course
- Tuesday, 9/7: Official attendance reporting day
- Monday 11/1 – Friday 11/5: Early registration for Spring 2022 semester
- Monday 11/22 – Friday 11/26: Thanksgiving Holiday
- Monday 11/29: Last day to submit a drop request form
- Monday 11/29 – Friday 12/3: Dead week
- Monday 12/6 – Friday 12/10: Final exams
<table>
<thead>
<tr>
<th>Week of . . .</th>
<th>Topics Covered</th>
</tr>
</thead>
</table>
| 8/23 – 8/27      | Course Introduction  
|                  | 2.1 Sets                                                   |
|                  | 2.2 Subsets                                               |
| 8/30 – 9/3       | 2.4 Set Equality  
|                  | 2.5 Applications of Sets                                   |
|                  | 3.1 Statements and Logical Connectives                   |
|                  | 3.2 Truth Tables I                                        |
| 9/6 – 9/10       | 3.3 Truth Tables II  
|                  | 3.4 Equivalent Statements                                 |
|                  | 3.5 Symbolic Arguments                                    |
|                  | 3.6 Euler Diagrams/Syllogistic Arguments                  |
| 9/13 – 9/17      | 3.6 (cont.)  
|                  | Review/Extra Instruction                                  |
|                  | Exam I (Ch 2 and 3)                                       |
| 9/20 – 9/24      | 10.1 Percent                                               |
|                  | 10.2 Personal Loans and Simple Interest                    |
| 9/27 – 10/1      | 10.2 (cont.)                                              |
|                  | 10.3 Compound Interest                                    |
| 10/4 – 10/8      | 10.4 Installment Buying                                   |
|                  | 10.4 (cont.)                                              |
| 10/11 – 10/15    | 10.5 Mortgages                                            |
|                  | 10.6 Annuities and Sinking Funds                          |
| 10/18 – 10/22    | Review/Extra Instruction                                  |
|                  | Exam II (Ch 10)                                           |
| 10/25 – 10/29    | 11.1 Empirical and Theoretical Probability               |
|                  | 11.3 Expected Value                                       |
|                  | 11.4 Tree Diagrams                                        |
|                  | 11.5 OR and AND Probability                               |
|                  | 11.6 Conditional Probability                              |
|                  | 11.7 The Counting Principle/Permutations                  |
| 11/1 – 11/5      | 11.8 Combinations                                         |
|                  | 11.9 Probability and Combinations                         |
|                  | 12.1 Sampling and Misuses of Statistics                   |
|                  | 12.2 Frequency Distributions and Graphs                   |
|                  | 12.3 Measures of Central Tendency                         |
|                  | 12.4 Measures of Dispersion                               |
| 11/15 – 11/19    | 12.5 The Normal Curve                                     |
|                  | Exam III (Ch 11 and 12)                                   |
| 11/22 – 11/26    | Thanksgiving Break                                       |
| 11/29 – 12/3     | 1.3 Problem Solving                                       |
|                  | Review                                                   |
| Final Exam       | Section .033: Wednesday, December 8th 1:00 PM – 3:00 PM |
|                  | Section .035: Tuesday, December 7th 1:00 PM – 3:00 PM    |
|                  | Section .036: Monday, December 6th 10:30 AM – 12:30 PM   |
Course description: Provides an introduction to mathematical thinking emphasizing analysis of information for decision-making.

Core Objectives (CO):
1. **Critical Thinking** [CO 1]: to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
2. **Communication Skills** [CO 2]: to include effective development, interpretation and expression of ideas through written, oral and visual communication
3. **Empirical and Quantitative Skills** [CO 3]: to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions

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: See general course prerequisites.

General Education Core Curriculum: This course has been selected to be part of SFA’s core curriculum. The Texas Higher Education Coordinating Board has identified six objectives for all core courses: 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. Assessment of these objectives at SFA will be based on student work from all core curriculum courses. This student work will be collected in D2L, the assessment management system selected by SFA to collect student work for core assessment.

By enrolling in MATH 1332 Math in Society you are also enrolling in a Core Curriculum Course that fulfills the Mathematics Core Objective requirement.

The chart below indicates: (a) The core objectives that are required to be taught in this course per the Texas Higher Education Coordinating Board (THECB), (b) How the required core objectives will be addressed.
Core Curriculum Objective Table

<table>
<thead>
<tr>
<th>Core Objective</th>
<th>Definition</th>
<th>How the Core Objective Will be Addressed.</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>Set Theory and Logic modules</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>Differentiating, applying, and interpreting results from finance formulas</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>Decision-making using analysis based on Probability and Statistics</td>
</tr>
</tbody>
</table>

Outline of Suggested Topics: The following is a list of suggested topics. These topics can be augmented or diminished, as long as the objectives for the course are practiced. Decisions concerning order of presentation are left to individual instructors.

Course outline: Approximate time spent

- Critical Thinking (Chapter 1) \[CO: 1,2,3\] 16%
  - Inductive and Deductive Reasoning
  - Problem-Solving with Patterns
  - Problem-Solving Strategies
- Logic (Chapter 2) \[CO: 1,2,3\] 16%
  - Logic, Statements, and Quantifiers
  - Truth Tables, Equivalent Statements and Tautologies
  - The Conditional and Biconditional
  - The Conditional and Related Statements
  - Arguments
- Set Theory (Chapter 3) \[CO: 1,2,3\] 16%
  - Basic Properties of Sets
  - Complements, Subsets and Venn Diagrams
  - Set Operations
  - Infinite Sets
- Financial Mathematics (Chapter 11) \[CO: 1,2,3\] 16%
  - Simple Interest
  - Compound Interest
  - Credit Cards and Consumer Loans
  - Stocks, Bonds and Mutual Funds
  - Home Ownership
- Counting and Probability (Chapter 12) \[CO: 1,2,3\] 16%
  - The Counting Principle
Permutations and Combinations
- Probability and Odds
- Addition and Complement Rules
- Conditional Probability
- Expectations

Statistics (Chapter 13) [CO: 1,2,3] 16%
- Measures of Central Tendency
- Measures of Dispersion
- Measures of Relative Position
- Normal Distributions
- Linear Regression and Correlation

Explicit instruction in Critical Thinking, Communication, and Empirical and Quantitative Reasoning is in addition to implicit instruction, modeling and practice that occur daily in the discussion of logic, sets, financial mathematics, counting, probability, and statistics. This explicit instruction includes explanation of solving mathematical problems by thinking critically, communicating logically ordered solutions with complete and correct notation, and applying empirical or quantitative skills as appropriate to the problem.

Academic Integrity
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.

The penalty for a student found cheating on any part of an assignment, quiz, or exam in this class will range from a grade of zero on the work to a grade of F in the course, and may result in additional, more severe disciplinary measures. A student who allows another to copy his work and the student copying the work are both guilty of cheating. Do your own work. Do not show your completed work to others. Do not allow others to copy your work.

Definition of Academic Dishonesty (SFA policy 4.1):
Academic dishonesty includes both cheating and plagiarism. Cheating includes, but is not limited to:
- using or attempting to use unauthorized materials on any class assignment or exam;
- falsifying or inventing of any information, including citations, on an assignment;
- helping or attempting to help other student(s) in an act of cheating or plagiarism.

Plagiarism is presenting the words or ideas of another person as if they were one’s own. Examples of plagiarism include, but are not limited to:
- submitting an assignment as one’s own work when it is at least partly the work of another person;
- submitting a work that has been purchased or otherwise obtained from the Internet or another source;
- incorporating the words or ideas of an author into one’s paper or presentation without giving the author credit.

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.

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.

SFASU Mental Health Statement: SFASU values students’ mental health and the role it plays in academic and overall student success. 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.

On-campus Resources:
SFASU Counseling Services
www.sfasu.edu/counselingservices
3rd Floor Rusk Building
936-468-2401

SFASU Human Services Counseling Clinic
www.sfasu.edu/humanservices/139.asp
Human Services Room 202
936-468-1041

Crisis Resources:
Burke 24-hour crisis line 1(800) 392-8343
Suicide Prevention Lifeline 1(800) 273-TALK (8255)
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). 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.

Student Learning Outcomes (SLO): 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. [CO: 1,2,3]
2. Use sets as a tool for organizing information, recognize that relationships between and among sets provide the foundation for many valid arguments. [CO: 1,2,3]
3. Use counting techniques, estimation, proportional reasoning, percents, and unit conversions to more ably interpret numerical quantities that occur in everyday life. [CO: 1,2,3]
4. Demonstrate understanding of basic probability and how it is involved in virtually every decision we make – either explicitly or implicitly. [CO: 1,2,3]
5. Use statistics to critically evaluate and interpret statistical studies and corresponding reports. [CO: 1,2,3]
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. [CO: 1,2,3]

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.

sfasu.edu/math