South Plains College
Common Course Syllabus: MATH 0337
Revised August 2020

Department: Mathematics, Engineering, and Computer Science

Discipline: Mathematics

Course Number: MATH 0337

Course Title: Foundations of Mathematical Reasoning

Available Formats: conventional/flex

Campuses: Levelland, Reese, and Lubbock Center

Course Description: This course surveys a variety of mathematical topics needed to prepare students for college level statistics or quantitative reasoning or for algebra-based courses. Topics include: numeracy with an emphasis on estimation and fluency with large numbers; evaluating expressions and formulas; rates, ratios, and proportions; percentages; solving equations; linear models; data interpretations including graphs and tables; verbal, algebraic and graphical representations of functions; exponential models. This course carries institutional credit but will not transfer and will not be used to meet degree requirements. This course will not satisfy graduation requirements.

Prerequisite: Successful completion of NCBM 0105.

Credit: 3 **Lecture:** 3 **Lab:** 1

Textbook: None

Supplies: Please see the instructor's course information sheet for specific supplies.

This course partially satisfies a Core Curriculum Requirement: No

Student Learning Outcomes: Upon completion of this course and receiving a passing grade, the student will be able to:

1. **Numeracy**: Students will develop number sense and the ability to apply concepts of numeracy to investigate and describe quantitative relationships and solve real-world problems in a variety of contexts.
2. **Proportional Reasoning**: Students will use proportional reasoning to solve problems that require ratios, rates, proportions, and scaling.
3. **Algebraic Competence, Reasoning, and Modeling**: Students will transition from specific and numeric to general and abstract reasoning using the language and structure of algebra to investigate, represent, and solve problems.
4. **Assessing Risk (Probabilistic Reasoning):** Students will understand and critically evaluate statements involving risk and arguments based on probability that appear in the popular media, especially in presenting medical information.
5. **Personal Finance**: Students will understand, interpret and make decisions based on financial information that is commonly presented to consumers.

6. **Civic Life**: Students will understand that quantitative information presented in the media and by other entities can sometimes be useful and sometimes be misleading.

Student Learning Outcomes Assessment: None

Course Evaluation: There will be a comprehensive departmental final exam given by all instructors.

Attendance/Student Engagement Policy: Attendance and effort are the most important activities for success in this course. The instructor maintains records of the student's engagement throughout the semester. The student will be allowed to miss twenty percent (20%) of class assignments for the semester, *for any reason*. Should this number be exceeded, the instructor has the right to drop the student with a grade of F or an X, depending on the instructor's discretion.

Plagiarism violations include, but are not limited to, the following:
1. Turning in a paper that has been purchased, borrowed, or downloaded from another student, an online term paper site, or a mail order term paper mill;
2. Cutting and pasting together information from books, articles, other papers, or online sites without providing proper documentation;
3. Using direct quotations (three or more words) from a source without showing them to be direct quotations and citing them; or
4. Missing in-text citations.

Cheating violations include, but are not limited to, the following:
1. Obtaining an examination by stealing or collusion;
2. Discovering the content of an examination before it is given;
3. Using an unauthorized source of information (notes, textbook, text messaging, internet, apps) during an examination, quiz, or homework assignment;
4. Entering an office or building to obtain an unfair advantage;
5. Taking an examination for another;
6. Altering grade records;
7. Copying another's work during an examination or on a homework assignment;
8. Rewriting another student's work in Peer Editing so that the writing is no longer the original student's;
9. Taking pictures of a test, test answers, or someone else's paper.

COVID Syllabus Statement: Should be provided by the Vice-President of Student Services over email.

Student Code of Conduct Policy: Any successful learning experience requires mutual respect on the part of the student and the instructor. Neither instructor nor student should be subject to others' behavior that is rude, disruptive, intimidating, aggressive, or demeaning**.** Student conduct that disrupts the learning process or is deemed disrespectful or threatening shall not be tolerated and may lead to disciplinary action and/or removal from class.

Diversity Statement: In this class, the teacher will establish and support an environment that values and nurtures individual and group differences and encourages engagement and interaction. Understanding and respecting multiple experiences and perspectives will serve to challenge and stimulate all of us to learn about others, about the larger world and about

ourselves. By promoting diversity and intellectual exchange, we will not only mirror society as it is, but also model society as it should and can be.

Disability Statement: Students with disabilities, including but not limited to physical, psychiatric, or learning disabilities, who wish to request accommodations in this class should notify the Disability Services Office early in the semester so that the appropriate arrangements may be made. In accordance with federal law, a student requesting accommodations must provide acceptable documentation of his/her disability to the Disability Services Office. For more information, call or visit the Disability Services Office at Levelland (Student Health & Wellness Office) 806-716-2577, Reese Center (Building 8) 806-716-4675, or Plainview Center (Main Office) 806-716-4302 or 806-296-9611.

Nondiscrimination Policy: South Plains College does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities. The following person has been designated to handle inquiries regarding the non-discrimination policies: Vice President for Student Affairs, South Plains College, 1401 College Avenue, Box 5, Levelland, TX 79336. Phone number 806-716-2360.

Title IX Pregnancy Accommodations Statement: If you are pregnant, or have given birth within six months, Under Title IX you have a right to reasonable accommodations to help continue your education. To activate accommodations you must submit a Title IX pregnancy accommodations request, along with specific medical documentation, to the Director of Health and Wellness. Once approved, notification will be sent to the student and instructors. It is the student's responsibility to work with the instructor to arrange accommodations. Contact the Director of Health and Wellness at 806-716-2362 or email cgilster@southplainscollege.edu for assistance.

Campus Concealed Carry: Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in South Plains College buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and South Plains College policy, license holders may not carry a concealed handgun in restricted locations. For a list of locations and Frequently Asked Questions, please refer to the Campus Carry page at: http://www.southplainscollege.edu/campuscarry.php
Pursuant to PC 46.035, the open carrying of handguns is prohibited on all South Plains College campuses. Report violations to the College Police Department at 806-716-2396 or 9-1-1.

SPC Bookstore Price Match Guarantee Policy: If you find a lower price on a textbook, the South Plains College bookstore will match that price. The difference will be given to the student on a bookstore gift certificate! The gift certificate can be spent on anything in the store.

If students have already purchased textbooks and then find a better price later, the South Plains College bookstore will price match through the first week of the semester.   The student must have a copy of the receipt and the book has to be in stock at the competition at the time of the price match.

The South Plains College bookstore will happily price match BN.com & books on Amazon noted as *ships from and sold by Amazon.com*. Online marketplaces such as *Other Sellers* on

Amazon, Amazon's Warehouse Deals, *fulfilled by* Amazon, BN.com Marketplace, and peer-to-peer pricing are not eligible. They will price match the exact textbook, in the same edition and format, including all accompanying materials, like workbooks and CDs.

A textbook is only eligible for price match if it is in stock on a competitor's website at time of the price match request. Additional membership discounts and offers cannot be applied to the student's refund.

Price matching is only available on in-store purchases.   Digital books, access codes sold via publisher sites, rentals and special orders are not eligible. Only one price match per title per customer is allowed.

Note: The instructor reserves the right to modify the course syllabus and policies, as well as notify students of any changes, at any point during the semester.

South Plains College
Instructor Syllabus: MATH0337
Fall 2020

Course Title: Foundations of Mathematical Reasoning

Section Number: 001

Section Meeting Time and Location: T/Th 11:00 AM – 12:45 PM, Agriculture 105

Format: Conventional. This class will meet face-to-face during the desginated class time.

Instructor: Jerod Clopton
Telephone: (806) 716-2738
Office: Math and Engineering building, office 102
Email: The instructor may be emailed through Blackboard or at
jclopton@southplainscollege.edu

Virtual/Face-to-Face Office Hours:
- Monday: 10:30 am–12:00 pm
- Tuesday: 9:30 am–10:30 am, 1:00 pm–2:00 pm
- Wednesday: 10:30 am–12:00 pm
- Thursday: 9:30 am–10:30 am, 1:00 pm–2:00 pm
- Fridays: 10:30 am–11:30 am
- And by appointment (scheduled in Blackboard on by email correspondence).

Email Policy: All students at South Plains College are assigned a standardized SPC e-mail account. Although personal email addresses will continue to be collected, the assigned SPC e-mail account will be used as the official channel of communication for South Plains College. The Student Correspondence Policy can be found at www.southplainscollege.edu. To access the SPC student e-mail account, log in to portal.office.com. (Copied from SPC Student Guide) Since all students have an assigned SPC email, the instructor will only acknowledge, respond, and send emails to your assigned SPC email. This ensures all correspondence from the instructor is received by the intended recipient.

Supplies: As a reminder, there is no text book for this course. You will need writing utinsils (preferably pencils), lined notebook paper, a binder (for organizing purposes) a scientific calculator. Calculators on cell phones, TI-89, TI-92, or TI-Inspire calculators, or any other electronic devices will not be allowed during testing without permission from the instructor. Make certain you have access to a scanner or scanning app such as CamScanner, Scannable, OneDrive, etc. in order to scan your assignments/quizzes and submit them through Blackboard.

Blackboard: Blackboard is the online course management system that will be utilized for this course. This course is supplemented online, so all access to course information and your instructor is through the Internet. This course syllabus, as well as all course materials can be accessed through Blackboard. Login at https://southplainscollege.blackboard.com/. The username and password should be the same as the MySPC and SPC email.

Username: first initial, last name, and last 4 digits of the Student ID
Password: Original CampusConnect Pin No. (found on SPC acceptance letter)

Questions regarding Blackboard may be emailed to blackboard@southplainscollege.edu or by telephone to 806-716-2180

Limited Classroom Occupancy: Due to the COVID pandemic each classroom has a limited occupancy. Therefore due to class size and limited occupancy a portion of the students will be able to attend class in a face-to-face setting while the remaining portion will attend class virtually (by participating in the class through Collaborate or Zoom). To ensure that all students have an equal opportunity to attend face-to-face, a schedule will be created so that students who attend a class face-to-face on one day of the week will attend class virtually on the other day of the week.

Course Evaluation: Assignments will count for 20% of the final grade, while exams count for 80% of the final grade. Expect 22 assignments, corresponding quizzes, and 4 scheduled exams throughout the course. Your final average in the course will determine the letter grade posted on your transcript. This grade is determined by the following scale:
A (90-100%), B (80-89%), C (70-79%), D (60-69%), F (0-59%).

- Assignments/Quizzes (22 assignments and 20 quizzes) = 20%
- Exam 1 (covering Assignments 1.1-1.6) = 20%
- Exam 2 (covering Assignments 2.1-2.6) = 20%
- Exam 3 (covering Assignments 3.1-3.5) = 20%
- Exam 4 (covering Assignments 4.1-4.5 and major topics from previous exams) = 20%.

To maximize your potential for successfully completing this course:
- login to Blackboard daily
- watch the lecture videos and take notes on them
- thoroughly complete and submit the assignments on time
- practice the exercises repeatedly until you have full mastery of them;

Amendment to Attendance/Student Engagement Policy: In addition to the attendance/student engagement policy stated in the common course syllabus (page 2), students should observe the following guidelines

Before arriving for the class meeting, make certain you have:
1. worked through the notes and videos for that week's lessons;
2. completed a majority of the assigned exercises.

Upon arriving at the class meeting, we will:
1. answer questions over exercises;
2. work through lab exercises;
3. submit assignments and quizzes.

Assignments and Exams: The following is a sequential list of the assignments and exams.
   1.1 – Addition / Subtraction of Integers
   1.2 – Multiplication / Division of Integers
   1.3 – Multiplication / Division of Fractions
   1.4 – Addition / Subtraction of Fractions

1.5 – Order of Operations
1.6 – Simplifing Algebraic Expressions
Exam 1 (20%)
    2.1 – Solving Linear Equations
    2.2 – Intro to Graphing, Slope, Graphing Lines
    2.3 – Systems of Equations
    2.4 – Monomials
    2.5 – Scientific Notation
    2.6 – Addition / Subtraction / Multiplicaion of Polynomials
Exam 2 (20%)
    3.1 – Factoring
    3.2 – Radicals
    3.3 – Solving Quadratic Equations
    3.4 – Geometry: 2D and 3D
    3.5 – Pythagorian Theorem and Applicaions
Exam 3 (20%)
    4.1 – Factoring
    4.2 – Percentages
    4.3 – Statistical Concepts
    4.4 – Measures of Central Tendency and Graphs
    4.5 – Finance
Exam 4 (20%)

Assignment Format and Policy: Assignments are given after each lesson and are collected according to the calendar below. Expect a quiz to accompany each assignment. For each question on each assignment:

- Write the question number.
- In solving the problem, show <u>all</u> necessary work.
- Clearly mark your answer.
- Check your answers in Blackboard to make certain you are practicing the exercises correctly.
- Write your name at the top of each page of your work.
- Write the course number and section number on the first page of your work.
- Submit the assignment in Blackboard as a single pdf file. (Pdf files can be generated easily using a scanner or many freely available phone apps, like CamScanner, Scannable, or OneDrive.)

Late assignments will be accepted with a 10% deduction. No late quizzes will be accepted. Make certain to complete and submit assignments on time (or early). Early submissions are welcomed! Again, expect a quiz to be administered with each assignment collection.

Exam Format and Policy: There are four (4) units of study in this course. At the conclusion of each unit is a face-to-face examination. Due to limited classroom occupancy, students will take their exam on the day that they they regular attend class. If there becomes a quarantine issue or movement of this class to an online setting, then adequate internet supplies will be needed, such as a webcam, microphone, and access to online collaborative tools like Blackboard Collaborate or Zoom.

Tentative Course Calendar: Below is a calendar view of assignment and exam due dates and times.

Week	Date	Topics (assignment is included with each lesson)	Due Date
1	Aug 25	Introduction	
	Aug 27	Topic 1.1 – Addition/Subtraction of Inegers	Quiz 0 and HW 1.1 due by 11:59 pm
2	Sep 1	Topic 1.2 – Multiplication/Division of Integers Topic 1.3 – Multiplication/Division of Fractions	Quiz 1.1 and HW 1.1 & 1.2 due by 11:59 pm
	Sep 3	Topic 1.4 – Addition/Subtraction of Fractions	Quiz 1.2/1.3 and HW 1.4 due by 11:59 pm
3	Sep 8	Topic 1.5 – Order of Operations	Quiz 1.4 and HW 1.5 due by 11:59 pm
	Sep 10	Topic 1.6 – Simplifing Algebraic Expressions	Quiz 1.5 and HW 1.6 due by 11:59 pm
4	Sep 15	**Exam 1 – Tuesday Class**	
	Sep 17	**Exam 1 – Thursday Class**	
5	Sep 22	Topic 2.1 – Solving Linear Equations	HW 2.1 due by 11:59 pm
	Sep 24	Topic 2.2 – Into to Graphing, Slope, Graphing Lines	Quiz 2.1 and HW 2.2 due by 11:59 pm
6	Sep29	Topic 2.3 – Systems of Equations	Quiz 2.2 and HW 2.3 due by 11:59 pm
	Oct 1	Topic 2.4 – Monomials	Quiz 2.3 and HW 2.4 due by 11:59 pm
7	Oct 6	Topic 2.5 – Scientific Notation	Quiz 2.4 and HW 2.5 due by 11:59 pm
	Oct 8	Topic 2.6 – Addition / Subtraction / Multiplicaion of Polynomials	Quiz 2.5 and HW 2.6 due by 11:59 pm
8	Oct 13	**Exam 2 – Tuesday Class**	
	Oct 15	**Exam 2 – Thursday Class**	
9	Oct 20	Topic 3.1 – Factoring	HW 3.1 due by 11:59 pm
	Oct 22	Topic 3.2 – Radicals	Quiz 3.1 and HW 3.2 due by 11:59 pm
10	Oct 27	Topic 3.3 – Solving Quadratic Equations	Quiz 3.2 and HW 3.3 due by 11:59 pm
	Oct 29	Topic 3.4 – Geometry: 2D and 3D	Quiz 3.3 and HW 3.4 due by 11:59 pm
11	Nov 3	Topic 3.5 – Pythagorian Theorem and Applicaions	Quiz 3.4 and HW 3.5 due by 11:59 pm
	Nov 5	Review	Quiz 3.5 due by 11:59 pm
12	Nov 10	**Exam 3 – Tuesday Class**	
	Nov 12	**Exam 3 – Thursday Class**	
13	Nov 17	Topic 4.1 – Units of Measurements and Conversions	HW 4.1 due by 11:59 pm

	Nov 19	Topic 4.2 – Percentages	Quiz 4.1 and HW 4.2 due by 11:59 pm
14	Nov 24	Topic 4.3 – Statistical Concepts	Quiz 4.2 and HW 4.3 due by 11:59 pm
	Nov 26	**Thanksgiving Break**	
15	Dec 1	Topic 4.4 – Measures of Central Tendency and Graphs	Quiz 4.3 and HW 4.4 due by 11:59 pm
	Dec 3	Topic 4.5 – Finance	Quiz 4.4 and HW 4.5 due by 11:59 pm
16	Dec 7-10 Finals Week	**Exam 4** – date to be determined	