South Plains College Common Course Syllabus: Contemporary Mathematics with Support (MATH 0332 and MATH 1332) Spring 2023

Department: Mathematics, Engineering, and Computer Science

Discipline: Mathematics

Course Number: MATH 0332 and MATH 1332

Course Title: Contemporary Mathematics with Support

Course Section: C602 (Mondays, Tuesdays, Wednesdays, and Thursdays; 1:00-2:15pm)

Available Formats: conventional, hybrid, and internet. This class will be of the conventional format.

Campuses: Levelland, Reese, Plainview, Lubbock Center and Dual Credit. This class meets face-to-face at the Lubbock Downtown Center, in room B009

MATH 0332 Part of the Course

Course Description: Math0332 is to be taken concurrently with MATH 1332. Background topics which are necessary for a student to successfully complete MATH 1332 will be covered, with an emphasis on integers, percentages, graphing, fractions, exponents, radicals, statistics, and geometry.

Prerequisite: Maximum score of 349 on the TSIA1 without an ABE score, minimum diagnostic score of 3 on the TSIA2, or a successful completion of NCBM 0105.

Credit: 3 Lecture: 3 Lab: 0

MATH 1332 Part of the Course

Course Description: Intended for Non-STEM (Science, Technology, Engineering, and Mathematics) majors. Topics include introductory treatments of sets and logic, financial mathematics, probability and statistics with appropriate applications. Number sense, proportional reasoning, estimation, technology, and communication should be embedded throughout the course. Additional topics may be covered.

Prerequisite: Minimum score of 350 on the TSIA1, minimum score of 950 on the TSIA2, a diagnostic score of 6 on the TSIA2, TSI-exempt status, a successful completion with a grade of 'C' or better in MATH 0337, or successful completion of NCBM-0112.

Credit: 3 Lecture: 3 Lab: 0

Instructor: Jerod Clopton Office: Lubbock Downtown Center, B019 Telephone: (806) 716-2738 Email: jclopton@southplainscollege.edu

Office Hours:

- Monday: 3:00 5:00 PM
- Tuesday: 3:00 5:00 PM
- Wednesday: 3:00 5:00 PM
- Tuesdays 3:00 5:00 PM
- Alternative times to meet may be scheduled with the instructor.

Email Policy: All students at South Plains College are assigned a standardized SPC email. Log into portal.office.com to access to you SPC email account. The instructor will only acknowledge, respond, and receive emails to your assigned email address.

- My expected response time to received emails is as follows:
 - For emails sent on Monday-Thursday, I will attempt to respond within 24 hours.
 - For emails sent on Friday-Sunday, I may not respond until the following Monday.
- I will not be checking / responding to messages sent through the Blackboard messaging system.

Textbook: No text book is required for this course.

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 <u>all</u> course materials can be accessed through Blackboard. Login at <u>https://southplainscollege.blackboard.com/</u>. 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)

Supplies:

- Scientific calculator (with log, ln, sin, cos, and tan functions). Suggested calculator: TI-30XIIS.
 Graphing calculators are <u>not</u> allowed.
- Large 3-ring binder, dividers, notebook paper, graph paper (available to print on blackboard), hole punch, pencils, and erasers.
- Printed Notes. A blank copy of the notes will be posted on Blackboard and you will be expected to print them and have them in class. You are expected to fill them out during class. If you miss class for any reason, you will need to view the instructor's notes on Blackboard and fill in out the notes handout. Your completed notes will be a requirement in the binder check.
- Warning: Do not expect your instructor to have supplies for you to borrow.

This course partially satisfies a Core Curriculum Requirement: Mathematics Foundational Component Area (020)

Core Curriculum Objectives addressed:

- **Communications skills**—to include effective written, oral and visual communication
- **Critical thinking skills**—to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
- Empirical and quantitative competency skills—to manipulate and analyze numerical data or observable facts resulting in informed conclusions

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

- 1. Apply the language and notation of sets.
- 2. Determine the validity of an argument or statement and provide mathematical evidence.
- 3. Solve problems in mathematics of finance.
- 4. Demonstrate fundamental probability/counting techniques and apply those techniques to solve problems.
- 5. Interpret and analyze various representations of data.
- 6. Demonstrate the ability to choose and analyze mathematical models to solve problems from real-world settings, including, but not limited to, personal finance, health literacy, and civic engagement.

Student Learning Outcomes Assessment: A pre- and post-test questions will be used to determine the extent of improvement that the students have gained during the semester

Course Evaluation: There will be departmental final exam questions given by all instructors. Assignments, quizzes, binder check, and exam corrections will count for 15% of the final grade, while exams count for 85% of

the final grade. Expect 40 assignments, up to 14 quizzes, and 7 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%).

- Homework Assignments, Quizzes, Binder Check = 15%
- Exam 1 = 10%
- Exam 2 = 10%
- Exam 3 = 10%
- Exam 4 = 10%
- Exam 5 = 10%
- Exam 6 = 10%
- Final Exam = 25%

Daily Assignments:

- Homework will be assigned at each class. Work the problems early enough to seek help if needed.
- Homework is due at the beginning of the next class. Late homework will not be accepted. If you are going to be absent, I will accept your homework via email as long as that email is time-stamped before our scheduled class time and you give me a valid reason for your absence. If the email does not have those two things, you will receive a zero on the assignment.
 - Homework must be sent as a single PDF file. There are a number of cell phone apps that can be used to create PDF files.
- Late assignments are not accepted under any circumstances. If an assignment is turned in late, it will be a zero.
- Homework will be graded in two ways:
 - 1. Completion (50% of HW grade)
 - 2. I will spot check 3-5 questions (50% of HW grade)
- On all assignments, you are expected to write your full name at the top, give the assignment a title and clearly number the questions.
- To receive full credit on homework problems, you must show work that is legible, and your work must justify your answer.
- Keys to the homework assignments are posted on Blackboard so that you can check your answers. Please remember that when I grade, not only will I grade the answer, I am grading your work that leads to that answer.
- At the end of the semester, the lowest 4 daily grades (homework/binder) will be dropped.

Binder:

- All students will keep a binder which will be used as a reference and study guide. If done correctly, this binder can serve as a course book and is a great resource to have.
- The binder will be graded randomly by the instructor during the semester. Each time it is graded, you will receive an assignment grade for it.
- Organization guidelines: see Binder Organization document.

Note: Being absent does not excuse you from notes or homework. Notes printouts, notes videos, and assignments are available on Blackboard and should be printed and completed even if you are not in class.

Exams:

- Six Unit Exams and a Final Exam
- Leaving the class during an exam is not permitted.
- The Final Exam is comprehensive.
- There are no exemptions for the final.
- If you are going to miss an exam, contact your instructor immediately (preferably prior to the exam). Make up exams are very rare and only provided under extreme, documented circumstances.

- If your grade on your final exam is higher than one of the unit tests, I will replace that unit test grade with your final exam grade.
- All electronic communication devices (phones, smart watches etc.) must be put away during exams. Failure to do so will result in a grade of zero on the exam.

Attendance/Student Engagement Policy: Attendance and engagement are the most critical activities for success in this course. The instructor maintains records of the student's attendance and submission of assignments throughout the semester. The student is expected to attend at least eighty percent (80%) of the total class meetings and submit at least eighty percent (80%) of the total class assignments to have the best chance of success. If the student fails to meet these minimum requirements, the instructor may remove the student from the class with an X, upon their discretion, to help the student from harming their GPA. If the student can not receive an X, the instructor will assign an F.

Resources:

- Please come to me first with any questions that you have about this class. Feel free to come by my office during my office hours or email me.
- **SPC Tutoring:** Tutoring is FREE for all currently enrolled students. Make an appointment or drop-in for help at any SPC location or online! Visit the link below to learn more about how to book an appointment, view the tutoring schedule, and view tutoring locations.
 - $o \quad http://www.southplainscollege.edu/exploreprograms/artsandsciences/teacheredtutoring.php$
- **Tutor.com:** You also have 180 FREE minutes of tutoring with Tutor.com each week, and your hours reset every Monday morning. Log into Blackboard, click on the tools option from the left-hand menu bar. Click on the Tutor.com link and you will automatically be logged in for free tutoring. You may access tutor.com tutors during the following times:
 - o Monday Thursday: 8pm-8am
 - 6pm Friday 8am Monday morning

Academic Integrity (Plagiarism and Cheating Policy): "Complete honesty is required of the student in the presentation of any and all phases of course work. This idea applies to quizzes of whatever length as well to final examinations, to daily reports, and to term papers" (SPC General Catalog).

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.

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.

South Plains College policies concerning diversity, disabilities, non-discrimination, Title IX Pregnancy Accommodations, and Campus Concealed Carry Statements can be found here: <u>https://www.southplainscollege.edu/syllabusstatements/</u>.

South Plains College policies, return to campus plan, and protocols regarding COVID-19 can be found here: <u>https://www.southplainscollege.edu/emergency/covid19-faq.php</u>.

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.

Tentative Course Calendar MATH 0332/1332: Contemporary Mathematics w/ Support Spring 2023 (M/T/W/Th 1:00-2:15; Lubbock Downtown Center, B011)

Date		Торіс	Due at Beginning of				
			Class				
Unit 1 – Algebra Part 1							
Week 1	Mon, Jan 16	Martin Luther King, Jr. Holiday (No Class)					
	Tues, Jan 17	Introduction					
	Wed, Jan 18	1.1 - Integers, Decimals and Fractions					
	Thur, Jan 19	1.2 - Exponents, Order of Operations, Scientific Notation	Notes and HW 1.1				
Week 2	Mon, Jan 23	1.3 - Solving Linear Equations	Notes and HW 1.2				
	Tues, Jan 24	1.4 - Applications of Linear Equations	Notes and HW 1.3				
	Wed, Jan 25	1.4 - Applications of Linear Equations (continued)					
	Thur, Jan 26	1.5 - Introduction to Polynomials	Notes and HW 1.4				
Week 3	Mon, Jan 30	1.6 - Solving Quadratic Equations	Notes and HW 1.5				
	Tues, Jan 31	1.7 - Review over Unit 1	Notes and HW 1.6				
	Wed, Feb 1	1.7 - Review over Unit 1					
	Thur, Feb 2	Exam #1 – Algebra Part I	HW 1.7 and Course				
			Binder				
		Unit 2 – Algebra Part II					
Week 4	Mon, Feb 6	2.1 - The Coordinate System, Distance and Midpoint					
	Tues, Feb 7	2.2 - Intro to Lines and Slope	Notes and HW 2.1				
	Wed, Feb 8	2.3 - Equations of Lines	Notes and HW 2.2				
	Thur, Feb 9	2.4 - Functions, Graphs and Models	Notes and HW 2.3				
Week 5	Mon, Feb 13	2.5 - Systems of Linear Equations	Notes and HW 2.4				
	Tues, Feb	2.6 - Applications of Linear Systems					
	14		Notes and HW 2.5				
	Wed, Feb 15	2.7 - Review over Unit 2	Notes and HW 2.6				
	Thur, Feb	2.7 - Review over Unit 2					
	16						
Week 6	Mon, Feb 20	Exam #2 – Algebra Part II	HW 2.7 and Course				
			Binder				
Unit 3 – Consumer Math							
	Tues, Feb	3.1 - Measurement and Conversions					
	21						

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	Wed, Feb 22	3.2 - Ratios and Proportions	Notes and HW 3.1				
	Thur, Feb	3.3 - Variation					
	23		Notes and HW 3.2				
Week 7	Mon, Feb 27	3.4 - Simple and Compound Interest	Notes and HW 3.3				
	Tues, Feb	3.5 - Loan Amortization and the Costs and Advantages of	Notes and HW 3.4				
	28	Home Ownership					
	Wed, Mar 1	3.6 - Financial Investments	Notes and HW 3.5				
	Thur, Mar 2	3.7 - Review over Unit 3	Notes and HW 3.6				
Week 8	Mon, Mar 6	3.7 - Review over Unit 3					
	Tues, Mar 7	Exam #3 – Consumer Math	HW 3.7 and Course				
			Binder				
		Unit 4 - Geometry					
	Wed, Mar 8	4.1 - Angles, Curves and Polygons					
	Thur, Mar 9	4.2 - Triangles: Similarity and the Pythagorean Theorem	Notes and HW 4.1				
Spring Break – March 13-17							
Week 9	Mon, Mar	4.3 - Perimeter, Circumference and Area					
	20		Notes and HW 4.2				
	Tues, Mar	4.4 - 3-D Shapes, Surface Area and Volume					
	21		Notes and HW 4.3				
	Wed, Mar	4.5 - Right Triangle Trigonometry					
	22		Notes and HW 4.4				
	Thur, Mar	4.6 - Review over Unit 4					
	23		Notes and HW 4.5				
Week	Mon, Mar	4.6 - Review over Unit 4					
10	27						
	Tues, Mar	Exam #4 – Geometry	HW 4.7 and Course				
	28		Binder				
Unit 5 – Sets and Counting							
	Wed, Mar	5.1 - Sets, Subsets, Set Operations and Venn Diagrams					
	29						
	Thur, Mar	5.2 - Surveys and Cardinal Numbers					
	30		Notes and HW 5.1				
Week	Mon, Apr 3	5.3 - Counting by Systematic Listing	Notes and HW 5.2				
11	Tues, Apr 4	5.4 - Using the Fundamental Counting Principle	Notes and HW 5.3				
	Wed, Apr 5	5.5 - Counting Problems Involving "Not" and "Or"	Notes and HW 5.4				
	Thur, Apr 6	5.6 - Review over Unit 5	Notes and HW 5.5				
			1				

	1		9
Week	Mon, Apr	5.6 - Review over Unit 5	
12	10		
	Tues, Apr	Exam #5 – Sets and Counting	HW 5.6 and Course
	11		Binder
		Unit 6 – Probability and Statistics	
	Wed, Apr	6.1 - Basic Probability Concepts	
	12		
	Thur, Apr	6.2 - Probability Events Involving "Not" and "Or"	
	13		Notes and HW 6.1
Week	Mon, Apr	6.3 - Conditional Probability and Events Involving	
13	17	"And"	Notes and HW 6.2
	Tues, Apr	6.4 - Mathematical Expectation	
	18		Notes and HW 6.3
	Wed, Apr	6.5 - Visual Displays of Data	
	19		
	Thur, Apr	6.5 - Visual Displays of Data (continued)	
	20		Notes and HW 6.4
Week	Mon, Apr	6.6 - Measures of Central Tendency	
14	24		Notes and HW 6.5
	Tues, Apr	6.7 - Review over Unit 6	
	25		Notes and HW 6.6
	Wed, Apr	6.7 - Review over Unit 6	
	26		
	Thur, Apr	Exam #6 – Probability and Statistics	HW 6.7 and Course
	27		Binder
Week	Mon, May 1	Review for Comprehensive Final	
15	Tues, May 2	Review for Comprehensive Final	
	Wed, May 3	Review for Comprehensive Final	1
	Thur, May 4	Review for Comprehensive Final	
Week	Wed, May	Final Exam – The comprehensive final exam will be	Final Review
16	10	on Wednesday, May 10 from 10:15 a.m. to 12:15 p.m.	

Note: This schedule is tentative and may be altered as deemed necessary by the instructor. If there are any changes, they will be announced **in class and via a Blackboard announcement.**