South Plains College Dual Credit Course Syllabus Contemporary Math (MATH 1332) Spring 2024

Instructor: Danae Burton

Room: 105

Campus: Levelland High School

Email: danaeburton@levellandisd.net OR dburton@southplainscollege.edu

Classroom Rules:

1. Work hard – come to class prepared to take notes and learn.

- 2. Be kind to each other and the teacher.
- 3. NO cell phones out while I am teaching the lesson. You may listen to music while working independently.

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.

Student Learning Outcomes/Competencies: Upon completion of the course, students will be able to:

- 1. Apply the language and notation of sets. (CH 2)
- 2. Determine the validity of an argument or statement and provide mathematical evidence. (CH 3)
- 3. Solve problems in mathematics of finance. (CH 13)
- 4. Demonstrate fundamental probability/counting techniques and apply those techniques to solve problems. (CH 10, 11)
- 5. Interpret and analyze various representations of data. (12.1, 12.2)
- 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. (2.4, CH 6, 7, 8, 9, 10, 11, 12.1, 12.2, 13, Trigonometry Appendix, Metric System Appendix)
- 7. Be able to manipulate and solve polynomial, radical, exponential, and logarithmic expressions and apply these techniques to practical problems. (CH 7, 8)
- 8. Use the six trigonometric functions to solve right triangles and oblique triangles, and be able to apply these techniques to practical problems. (Trigonometry Appendix)

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 0320 (Intermediate Algebra), or successful completion of NCBM 0114.

Supplies: Each student will need:

- One 1" binder to keep notes and graded papers in
- · Pen or pencil to take notes with
- One four function calculator OR TI30 (The school will provide a TI30X upon request)

Google Classroom: Each student will be given access to the Google Classroom for this section where the instructor will upload lecture notes and any other helpful resources throughout the year. Because students will be enrolled in this class at SPC in the Fall semester, students will have access to Blackboard, but we will not use Blackboard for this class. Google Classroom will be used for the entire year.

Technology: According to South Plains College Math Department's rules, graphing calculators will not be allowed in this class. However, if the student would like to use a four-function calculator or scientific calculator, those will be allowed in class and on exams. The instructor will check all calculators before exams.

Homework: Homework will be assigned after each section covered in class and will be due three class days after the day it is assigned. Late work will be deducted 10 points for each day it is late up to three days. After three days, late work will not be accepted.

Correction: Corrections will be allowed on assignments and quizzes only for up to half the points missed. Corrections must be turned in within one week of return. Tests cannot be corrected.

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 conclusion

Grades: A (90-100%), B (80-89%), C (70-79%), D (60-69%), F (0-59%).

The student's grade will be calculated with the following category weights. All grades will be kept in Skyward.

- Assignments = 20%
- Quizzes = 20%
- Exams 1-4 from the Fall = 20%
- Spring Exams = 30%
- Final Exam (comprehensive) = 10%.

Tentative Course Schedule:

Week	Dates	Lesson
		No school Monday – Student Holiday
1	Jan 8-12	5.6 Unites of Measure and Conversion
		5.7 Metric Conversion
		5.8 Perimeter and Circumference
2	Jan 15-19	5.9 Area
		5.10 Volume
		Review for Chapter 5 Exam
3	Jan 22-26	Chapter 5 Exam
		6.1 Statements and Quantifiers
		6.2 Truth Tables
		6.3 Constructing Truth Tables
4	Jan 29 – Feb 2	6.4 The Conditional and Circuits
		6.5 The Conditional and Related Statements
		Review for Chapter 6 Exam
		Chapter 6 Exam
5		7.1 Basic Concepts of Probability
	Feb 5-9	7.2 Odds
		7.3 Events with (not) and (or)
		7.4 Conditional Probability
	Feb 12-16	7.5 Expected Value
6		Review for Chapter 7 Exam
		Chapter 7 Exam
	Feb 19-23	No School Friday No school Monday – Student Holiday
		8.1 Counting by Systematic Listing
7		8.2 Fundamental Counting Principal
		8.3 Permutations
		8.4 Combinations
8	Feb 26 – Mar 1	8.5 Permutations and Combinations
		Review for Chapter 8 Exam
		Chapter 8 Exam
		9.1 Frequency Distributions
	Mar 4-8	9.2 Visual Displays of Data
9		9.3 Measures of Central Tendency
		9.4 Measures of Dispersion
10	Mar 11-15	No school – Spring Break
10	Iviai 11-13	Review for Chapter 9 Exam
	Mar 18-22	Chapter 9 Exam
11		10.1 Simple Interest
		10.2 Simple Discount
		10.3 Compound Interest
12	Mar 25-29	10.4 Present Value
		10.5 The Time Value of Money
		No school Friday – Student Holiday
13	Apr 1-5	No school Monday
10	/\Pi ¹-∪	110 School Monday

		10.6 Consumer Credit
		10.7 Fixed Rate of Mortgages
		10.8 Stocks
		Review for Chapter 10 Exam
14	Apr 8-12	11.1 Systems of Linear EquationsSubstitution
		11.2 Systems of Linear EquationsElimination
		11.3 Solving Larger Systems
		11.4 Basic Matrix Operations
15	Apr 15-19	11.5 Matrix Products
		11.6 Identity and Inverse Matrices
		11.7 Solving Systems with Matrices
		11.8 Applications of Matrices
16	Apr 22-26	Review for Chapter 11 Exam
		Chapter 11 Exam
17	Apr 9 – May 3	STAAR Testing
18	May 6-10	Review for Final Exam
		Final Exam May 8-10 (TBD)
19	May 13-17	Grades due for SPC May 13
		Graduation May 17

^{*}Note that this syllabus is subject to change. Any changes made by the instructor will be reflected in the syllabus uploaded in Google Classroom.

Intellectual Exchange Statement

In South Plains College courses, the instructor will establish and support an environment that values and nurtures individual and group difference 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 intellectual exchange, we will not only mirror society as it is, but also model society as it should and can be.

Disabilities 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, Lubbock Centers (located at the Lubbock Downtown Center) 806-716-4675, or Plainview Center (Main Office) 806-716-4302.

Non-Discrimination Statement

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 <u>Title IX pregnancy accommodations request</u>, along with specific medical documentation, to the Health and Wellness Center. 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 Health and Wellness Center at 806-716-2529 or email dburleson@southplainscollege.edu for assistance.

CARE (Campus Assessment, Response, and Evaluation) Team

South Plains College is committed to ensuring the safety, health, and well-being of its students and community. To support its campus community SPC has a CARE Team. This is a dedicated group of campus professionals responsible for assessing and responding to students who could benefit from academic, emotional, or psychological support, as well as those presenting risk to the health or safety of the community. If you see someone experiencing challenges, appearing distressed, posing a threat to their safety or someone else's safety, or causing a significant disruption to the SPC community, please submit a CARE Team referral. You may also submit a referral for yourself if you would like additional support. NOTE: In cases where a person's behavior poses an imminent threat to you or another, contact 911.

Campus Concealed Carry Statement

Texas 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.