South Plains College Common Course Syllabus: MATH 1332 Revised July 2023

Department: Mathematics, Engineering, and Computer Science

Discipline: Mathematics

Course Number: MATH 1332

Course Title: Contemporary Mathematics

Available Formats: conventional, hybrid, and internet

Campuses: Levelland, Downtown Center, Plainview Center, Lubbock Center, and Dual Credit

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

Textbook: (for reference only, not required) *Mathematical Ideas*, Miller, Heeren, and Hornsby, 2019, 14th Edition, Prentice Hall/Pearson Education

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

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.

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. For the purposes of this class, you are allowed to miss 6 assignments. If the student fails to meet these minimum requirements, the instructor <u>may</u> 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.

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.

Penalties for academic integrity violations will range from a 50% to a 100% grade reduction, depending on the severity of the infraction.

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.

For information regarding official South Plains College statements about intellectual exchange, disabilities, non-discrimination, Title IX Pregnancy Accommodations, CARE Team, and Campus Concealed Carry, please visit <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.



Course Information Sheet – MATH 1332.607 – Fall 2023

Instructor: Denise Johansen

Office: LBK Downtown B020; (806)716-4632

Cell/Text: (513)227-0095

Email: djohansen@southplainscollege.edu

Time/Place: Wednesdays, 5:30pm-8:15pm – Lubbock Downtown Center B003

Lubbock Downtown Center Office Hours: MW 10-11am and 2:30-3pm, T/Th 11am-noon and 2:30-3pm, F 9-11am.

Virtual Office Hours: By appointment, schedule using <u>https://go.oncehub.com/djohansen</u>

Physical Textbook (Optional): (for reference only, not required) *Mathematical Ideas*, Miller, Heeren, and Hornsby, 2019, 14th Edition, Prentice Hall/Pearson Education

Supplies (Required):

- Calculator: A non-graphing scientific calculator (such as a TI-30) that is NOT your phone will be allowed on most activities.
- Paper and writing utensils

Technology Required:

Working, reliable internet access

Access to your SPC email.

Access to our Blackboard class. Login at <u>http://southplainscollege.blackboard.com</u> Gradescope.com website - login through Blackboard.

Computer, laptop, tablet, or phone for accessing and completing assignments.

Course Delivery:

- This class is a face-to-face course, using a "flipped classroom" model. This means you are responsible for watching the lecture videos in your Hwk assignments on your own time and attempting the assigned homework before class. During class, you will be asking questions, working problems together with the class, finishing your homework, completing an in-class worksheet, and/or starting the videos for the next class meeting.
- You will access course information, videos, and homework through use of the internet. I use email, Blackboard, Zoom, and Gradescope.com to deliver and manage this course. I do NOT use the Course Messages feature in Blackboard.
- I hold face-to-face office hours on the Lubbock Downtown Center campus (LDC B020) and virtual office hours using Zoom (schedule individual Zoom time with me at https://go.oncehub.com/djohansen).

Course Requirements: To maximize the potential to complete this course, a student should expect to spend 10-15 hours per week for the 15 weeks of our semester doing the following:

- login to Blackboard at least 3 times a week, use the Course Content link in Blackboard to find the weekly folder, print out the Notes documents, watch the required lecture videos and fill in your Notes, thoroughly complete all homework assignments, and prepare well for examinations.
- attend all class meetings, bringing any questions you had over the current week's Notes
- Take a weekly in-class quiz over the previous week's Notes
- complete your notes and participate in class
- Participate in a Blackboard discussion board to be completed each week.
- The four written exams and the final exam will be taken in class, and more details on this are given in the Course Evaluation section of this Syllabus.
- Additionally, students are expected to check their SPC school email **daily** and respond to email communications promptly. If you don't normally check your SPC email, make sure to set up your SPC account to forward mail to an account you do check.
- **Contacting Your Instructor:** I am available by phone or face-to-face visit in my office on the Lubbock Downtown Center campus during my posted office hours; you can email me or text my cell at any time. I can also be reached by phone using my office number (806-716-4632) or cellphone number (513-227-0095). If you have to leave a message, my response time is 1 business day or less.
- **Learning Materials/Activities:** To be successful in this course, you will use the following materials and complete the given activities for each section of the textbook that we will cover.
 - Homework assignment
 - Section videos Links to section videos will be in the Blackboard weekly folder. As you view the video, you should fill out the corresponding Notes document, just as if you were sitting in class with that instructor.
 - Homework assignment Homework assignments for each section will be posted in the weekly folder. Homework is not turned in as part of your grade, but the weekly in-class quizzes will come from Homework or Notes, so making sure you know how to work these problems will help you on the quizzes. The purpose of homework is to practice, practice, practice! This is where you actually are learning the concepts, not just watching someone else work problems.
 - Discussion board assignment These are weekly Blackboard assignments for you to get to know other students in the class, look for uses of mathematics in the real world, discuss strategies for solving problems, and generally get help from me and each other. Your initial post is due by 5pm on Wednesdays, and your responses to classmates are due by 5pm on Fridays.

Course Evaluation:

- The homework average is worth 10% of your grade, and the lowest 3 homework grades will be dropped.
- There will be daily in-class activities that could be a short quiz over the previous week's homework, a few questions about the lecture videos, or some practice problems over the day's course material. Because these activities are done in-class, there are

generally no makeups if you are absent. The only makeups allowed will be for Covid isolations that are verified by SPC's Health Services. The lowest 2 in-class grades will be dropped, and the remaining average will be worth 5% of your grade.

- There will be 7 in-person Quizzes at the beginning of non-Exam nights. Quiz questions will come directly from the previous week's Assignments or Notes. You may prepare ONE 3"x5" handwritten notecard for your reference for each quiz. The purpose of each quiz is to help you review the previous week's material and make sure you are staying on track. Quizzes will last for 15 minutes, so please be on time to class! The Quiz Average is worth 10% of your grade, and the lowest quiz grade will be dropped.
- There will be 14 required Discussion boards posted on Blackboard during the term, worth a total of 10% of your grade, and the lowest two discussion grades will be dropped.
- There will be 4 in-class exams, each worth 15% of your grade. For each of these exams, you are allowed ONE 3"x5" handwritten, front and back, notecard. If one exam is missed for a legitimate reason, the Final Exam grade will be substituted for the missed exam. All exams will be taken in person during our normal class time and will be timed at 75 minutes. There are NO makeup exams given for any reason. A second missed exam will receive a 0. It is still your responsibility to contact me **in advance** to let me know if you are going to miss an exam, and we can discuss alternative proctored testing for you.
- There will be 1 in-class cumulative final exam, worth 20% of your grade. This exam is at a different time than our normal class time and lasts for 2 hours. You are allowed a two-sided Formula Page and your calculator on this exam.
- **Due dates:** Your initial posts on the required discussions are due on Wednesdays by 5pm, and your follow-up posts are due on Fridays by 5pm. Due dates for all assignments and exams are listed in the Course Outline section of the Syllabus.
- Late work: Blackboard discussions will be accepted with a 20% late deduction. No assignments will be accepted after a hard deadline of 5pm on Wednesday, December 13th.

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Grading Policy:

| ing Policy: | | Letter Grades: | |
|-------------------|-----|----------------|---|
| Discussion boards | 10% | 90% - 100% | А |
| Quizzes | 10% | 80% - 89% | В |
| Exams (4*15%) | 60% | 70% - 79% | С |
| Final exam | 20% | 60% - 69% | D |
| | | 59% & below | F |

How your work is graded:

- For the Discussion Boards, your original post is generally worth 3 points, and your meaningful responses to 2 classmates are worth 2 points. Any exception to this will be explained in the instructions for that discussion.
- For the Quizzes and Exams that I grade, I give a percentage of points based on how many parts of the question were answered correctly.
 - You will take your paper and pencil Quizzes and Exams with me, and I will scan them and upload the scans to Gradescope. I will grade and "publish" grades in Gradescope, Gradescope will update your Bb Gradebook and current class average to include those scores.

Response times for grading:

- Quiz Graded by me and usually returned to you at the next class meeting, with feedback available on Gradescope.
- Discussion Graded by me within one week of due date.
- Exams Graded by me and returned to you within one week, with feedback available on Gradescope. Exception: the final exam is not returned to you, but you can come by the office to see it after grading.

Last day to drop is Thursday, November 30th.

SPC School Holidays:

Monday, 9/4, Labor Day Holiday Friday, 10/20, Fall Break Wednesday-Friday, 11/22-11/24, Thanksgiving Holidays

Cellphones: To limit disruptions to the class and distractions to yourself, please put your cellphone on silent mode or airplane mode. If you feel a call is an emergency that you must answer, please take the phone out in the hall before answering to minimize the disruption to the class. If you feel you must leave class, please do so as quietly as possible.

Daily Health Screening: It is critical that you honestly self-screen and STAY HOME if you are experiencing any of the following: fever, cough, chills, muscle pain, shortness of breath or difficulty breathing, new loss of taste or smell, or a sore throat. CONTACT ME if you are having any health issues that interfere with attending class, taking your exams, or completing other assignments on time.

Student Dress: Reasonable standards of decency apply to the college community. The student should dress in a manner which does not distract from the academic atmosphere. Revealing attire or clothing carrying obscene or offensive slogans is not permitted. In all academic buildings, classrooms, offices, the Student Center, and dining facilities, students are required to wear masks, shirts, and shoes.

Language: Please be respectful of others and use language that is appropriate to the workplace. In discussions that are face-to-face or online in Blackboard, remember that you are addressing a group. On discussion boards, even though you don't see the other students when you are posting in Discussions, they will be reading. This means several things:

- Don't say/write things that you wouldn't say/write publicly (face-to-face).
- Don't address comments to individuals unless you want all to know what you are telling that person.
- Don't share confidential information. If you are quoting from something another person has sent you personally, ask their permission first.
- Read your message before you send it since once it is out there, you can't change it.
- This is a NO JUDGEMENT ZONE! None of us have the same background and life experiences, so we understand or see things differently from each other. This means what seems obvious to you may not be obvious to others, and vice-versa. All on-topic questions are welcomed and treated with respect.

COURSE OUTLINE / CALENDAR*

Problems are assigned online in Blackboard for each section of the textbook that we cover. Assignments have due dates, generally at 5pm on Fridays, except your initial post for each Blackboard Discussion is due by 5pm on most Wednesdays. For example, in Week 2, your original post in Blackboard Discussion 2 is due by 5pm on Wednesday, 9/6, and your responses to 2 classmates are due by 5pm on Friday, 9/8. You will lose 20% for any work completed after the due date passes. To master the material and prepare for the exams, you **MUST** work extra problems!

* Assignments and deadlines are subject to change at instructor's discretion, and all changes will be announced in class and posted in Blackboard Announcements.

| Date | Content | Assignments |
|--------|---|--|
| Week 1 | | |
| 8/30 | Missed Class | |
| Week 2 | Algebra Module (Part 1) | Syllabus Quiz at |
| | Syllabus Overview | Gradescope.com |
| 9/6 | • 1.1 Order of Operations | |
| | • 1.2 Linear Equations | Blackboard Discussion |
| | 1.3 Applications of Linear Equations | 1 – Introductions |
| | | Bb Discussion 2 – Success Plan |
| | | Watch Sections 1.1-1.3 |
| | | Complete Notes 1.1-1.3 |
| | | Assignments 1.1-1.3 |
| | | Due 5pm, 9/13 |
| Week 3 | Algebra Module (Part 2) | Bb Discussion 3 – |
| | Quiz 1 (Sections 1.1-1.3) | Growth Mindset |
| 9/13 | • 1.4 The Rectangular Coordinate System, Midpoint, | |
| | and Distance Formulas | Watch Sections 1.4-1.5 |
| | 1.5 Lines, Slope, and Average Rates of Change | Complete Notes 1.4-1.5 |
| | | Assignments 1.4-1.5 |
| | | Due 5pm, 9/16 |
| Week 4 | Algebra Module (Part 3) & Review for Exam 1 | Bb Discussion 4 – |
| 0.000 | • Quiz 2 (Sections 1.4-1.5) | Study Strategies |
| 9/20 | • 1.6 Equations of Lines | Watah Captions 4 C 4 7 |
| | • 1.7 Solving Systems of Equations and Applications | Watch Sections 1.6-1.7 Complete Notes 1.6-1.7 |
| | Review for Exam 1 (Algebra Module) | Assignments 1.6-1.7 |
| | | |
| | | Due 5pm, 9/23 |

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| | Bb Discussion 5 – Review Success Plan |
| | Due 5pm, 9/30 |
| | |
| | Watch Section 2.1 |
| | Complete Notes 2.1 |
| | Assignment 2.1 |
| | Due 5pm, 10/4 |
| Consumer Math Module (Part 2) | Bb Discussion 6 – |
| Quiz 3 (Section 2.1) | Stress Management |
| 2.2 Variation | |
| 2.3 Polynomial Operations | Watch Sections 2.2-2.4 |
| 2.4 Quadratic Equations | Complete Notes 2.2-2.4 |
| | Assignments 2.2-2.4 |
| | Due 5pm, 10/7 |
| Consumer Math Module (Part 3) & Review | Bb Discussion 7 – |
| • Quiz 4 (Sections 2.2-2.4) | Dream Vacation |
| 2.5 Decimals and Percent | |
| • 2.6 The Time Value of Money | Watch Sections 2.5-2.6 |
| Review for Exam 2 (Consumer Math Module) | Complete Notes 2.5-2.6 |
| | Assignments 2.5-2.6 |
| | Due 5pm, 10/14 |
| Exam 2 & Geometry & Trigonometry Module (Part 1) | Bb Discussion 8 – |
| Exam 2 (Consumer Math Module) | Sleep |
| 3.1 Measurements and Conversions | |
| | Watch Section 3.1 |
| | Complete Notes 3.1 |
| | Assignment 3.1 |
| | Due 5pm, 10/25 |
| Geometry & Trigonometry Module (Part 2) | Bb Discussion 9 – |
| Quiz 5 (Section 3.1) | Nutrition |
| 3.2 Angles, Curves, Polygons | |
| | Watch Sections 3.2-3.4 |
| | Complete Notes 3.2-3.4 Assignments 3.2-3.4 |
| • 3.4 Geometry: 2D | 7.001grimento 0.2-0.4 |
| | Due 5pm, 11/4 |
| Geometry & Trigonometry Module (Part 3) & Review | Bb Discussion 10 – |
| Quiz 6 (Sections 3.2-3.4) | Math in Your Career |
| • 3.5 Geometry: 3D | |
| 3.6 Trigonometry and Applications | Watch Sections 3.5-3.6 |
| | Complete Notes 3.5-3.6 |
| Module) | Assignments 3.5-3.6 |
| | Due 5pm, 11/4 |
| | Quiz 3 (Section 2.1) 2.2 Variation 2.3 Polynomial Operations 2.4 Quadratic Equations 2.4 Quadratic Equations Quiz 4 (Sections 2.2-2.4) 2.5 Decimals and Percent 2.6 The Time Value of Money Review for Exam 2 (Consumer Math Module) Exam 2 & Geometry & Trigonometry Module (Part 1) Exam 2 (Consumer Math Module) 3.1 Measurements and Conversions Geometry & Trigonometry Module (Part 2) Quiz 5 (Section 3.1) 3.2 Angles, Curves, Polygons 3.3 Triangles: Similarity and the Pythagorean Theorem 3.4 Geometry: 2D Geometry & Trigonometry Module (Part 3) & Review Quiz 6 (Sections 3.2-3.4) 3.5 Geometry: 3D |

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| Week 11 | Exam 3 & Probability & Statistics Module (Part 1) | Bb Discussion 11 – |
| 44/0 | Exam 3 (Geometry & Trigonometry Module) | Eiffel Tower |
| 11/8 | 4.1 Sets, Subsets, and Venn Diagrams | |
| | 4.2 Set Operations, Cardinal Numbers, Surveys | Watch Sections 4.1-4.2 |
| | | Complete Notes 4.1-4.2 |
| | | Assignments 4.1-4.2 |
| | | Due 5pm, 11/15 |
| Week 12 | Probability & Statistics Module (Part 2) | Bb Discussion 12 – |
| | • Quiz 7 (Sections 4.1-4.2) | Gratitude |
| 11/15 | • 4.3 Counting | |
| - | 4.4 Basic Probability | Watch Sections 4.3-4.6 |
| | 4.5 Events Involving "Not" and "Or" | Complete Notes 4.3-4.6 |
| | 4.6 Conditional Probability and Events Involving "And" | Assignments 4.3-4.6 |
| | | |
| | | Due 5pm, 11/29 |
| Week 13 | Thanksgiving Holidays (11/22-11/24) | |
| | No class this week! | |
| Week 14 | Exam 4.8 Probability 8 Statistics Module (Port 2) | Bb Discussion 14 – |
| WEEK 14 | Exam 4 & Probability & Statistics Module (Part 3) | Halloween Graphs |
| 11/29 | • Exam 4 (Sections 4.1-4.6) | nanoween Graphs |
| 11/29 | 4.7 Visual Displays of Data | Watch Sections 4.7-4.8 |
| | 4.8 Measures of Central Tendency | Complete Notes 4.7-4.8 |
| | | Assignments 4.7-4.8 |
| | | Assignments 4.7-4.0 |
| | | Due 5pm, 12/6 |
| Week 15 | Review for Final Exam | Bb Discussion 15 – |
| | Review for Final Exam | Dear Younger Me |
| 12/6 | Roulette, if time allows | |
| | | Due 5pm, 12/8 |
| | | |
| Week 16 | Cumulative Final Exam | |
| 12/13 | Final Exam, 5:30pm-7:30pm | |
| | No assignments will be accepted after a hard deadline of 5pm on Wednesday, December 13 th . | |

* Assignments and deadlines are subject to change at instructor's discretion, and all changes will be announced in class and posted in Blackboard Announcements.