

**South Plains College Department of Mathematics**  
**Math 1332.005 and Math 1332.006 –Contemporary Mathematics Syllabus**  
**Fall 2019**

**Instructor:** Leah Chenault

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**Office Hours:** As listed below or by appointment

Monday	Tuesday	Wednesday	Thursday	Friday
NA	9:30 am–10:45 am	2:30 pm–5:00 pm	9:30 am–10:45 am	9:00 am–12:00 pm

**Disclaimer:** The instructor reserves the right to alter any class policies/dates as deemed necessary by the instructor. If there are any changes, they will be announced **in class**.

**Course Description: MATH 1332 – Contemporary Mathematics (3:3:0)** This course is designed specifically for those students who will terminate their mathematical training with one or two courses in mathematics. It includes the fundamentals and principles of algebra; introduction to geometry and trigonometry; use of graphs, proportions, percentages and logarithms; and heavy emphasis on applications. Semester Hours: 3, Lecture Hours: 3, Lab Hours: 0. Pre-requisite: Two units of high school algebra and TSI compliance or MATH 0320.

**Learning Outcomes:**

MATH 1332: Upon completion of the course, students 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.

**Core Objectives:**

1. CRITICAL THINKING – Students will develop habits of mind, allowing them to appreciate the processes by which scholars in various disciplines organize and evaluate data and use the methodologies of each discipline to understand the human experience.
2. COMMUNICATION SKILLS – Students will communicate ideas, express feelings and support conclusions effectively in written, oral and visual formats.
3. EMPIRICAL & QUANTITATIVE SKILLS – Students will develop quantitative and empirical skills to understand, analyze and explain natural, physical and social realms.

**Showing Work:** To receive full credit on an assignment, you must show all work that leads to your answer(s). The work must be legible, make sense and be easy to follow.

**Course Supplies:**

- Required: Scientific Calculator (with log and ln). Suggested TI-30XIIS. They are inexpensive and user friendly. Graphing calculators are not allowed. There may be some assignments where you are not allowed to use any calculator.
- Required: 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 get a copy of someone else's filled out notes. Your completed notes will be a requirement in the binder check.
- Required Textbook: *Mathematical Ideas*, Miller, Heeren, Hornsby and Heeren, 2020, 14<sup>th</sup> Edition, Pearson Education. You can purchase either a hard copy or a digital version of the textbook. There may be a 14 day trial for the digital version. Once you use the code, you cannot get a refund.
- Warning: Do not expect your instructor to have supplies for you to borrow.

**Homework:**

- 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. Absence = 0. 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 (page number etc) and clearly number the questions.
- To receive full credit on homework problems that are graded, you must show work that is legible and it must make sense.

**Binder:**

- At the end of the semester, the lowest 4 grades (homework/binder) will be dropped.
- All students will keep a binder which will be used as a reference and study guide.
- The binder will be graded randomly by the instructor during the semester.

**Binder organization:**

- Section 1: Syllabus
- Section 2: Unit 1: By section Notes and Assignment. At the end of the unit you will have a review and an Exam.
- Section 3: Unit 2
- Section 4: Unit 3
- Section 5: Post Unit 3 material and Comprehensive Review These pages will be kept in chronological order.

Note: Being absent does not excuse you from notes or homework. Everything is available on Blackboard and should be printed and completed even if you are not in class.

**Exams:**

- 3 Unit Exams
- 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.

**Grading Formula:**

Enrollment in this course does not guarantee advancement to the next course level. The final responsibility for learning lies with the student. The final letter grade for this course will be based on the following:

- 3 Unit Tests 20% each .....60%
- Homework/Binder.....15%
- Final Exam.....25%

**Final Grade Determination:** A 90-100    B 80-89    C 70-79    D 60-69    F 59 or below

**Attendance Policy:** Class attendance is expected, not optional. Class attendance may be taken at any time during the class period, so please do not be late or leave early. . Leaving early and/or being tardy will be considered ½ absence. You may be dropped from this course with a grade of X or F if you are absent four consecutive classes or if you exceed five absences (for any reason).

**Classroom Etiquette:**

- Preparation for class (including homework) is to be completed before – not during – the lecture.
- Chronic tardiness is unacceptable. We will begin promptly at the scheduled time for the class. A tardy counts as half an absence.
- Students are expected to be respectful of their fellow classmates and maintain a classroom environment that is conducive to learning. Refrain from using offensive language, talking loudly or off-topic, working on outside assignments, or otherwise being disruptive in class.
- NO tobacco use of any form is allowed in the classroom.
- Discussion of course material among students is encouraged during class, but habitually disruptive students will be asked to leave.
- All electronic communication devices are to be silenced and put away during class unless you are specifically told otherwise by your instructor. You will be given one verbal warning, after which you will be asked to leave.
- If I have to ask you to leave class for any reason (class disruption, cell phone usage etc), you will receive a zero for the day’s assignment.
- Food and/or drinks are NOT allowed in the classroom.
- All electronic communication with the instructor should take place via your SPC email account.

**Academic Honesty:** You are expected to uphold the ideas of academic honesty. All work that is graded must be your own. This policy applies to all work attempted in the course. If this policy is violated, the student will receive a zero for the assignment and will be dropped with an F. For more details on what is considered cheating, see the South Plains College catalog.

**Resources:**

- Blackboard! The course syllabus, calendar, gradebook, notes, and homework will be available on Blackboard. Be sure to check Blackboard regularly. There may also be times where I post videos that may supplement/reinforce what we have done in class.
- Free tutoring is available in M116 on the Levelland campus. You will need your student ID to check in for tutoring.
- I am available to help you! Feel free to come by during my office hours or email me at lchenault@southplainscollege.edu.
- Free tutorial videos are available at the following sites: <http://patrickjmt.com/>, <http://www.mathtv.com/>, and <http://www.khanacademy.org/>.

### **Succeeding in a Math Class:**

- Attend class every class period.
- Be mentally present! Take notes, pay attention and ask questions during class.
- Do all homework when it is assigned. Work on it early enough so that you can seek help if you need it.
- For every hour spent in class, you should expect to spend 2-3 hours outside of class working on this course. This includes time spent on homework and studying for quizzes and exams.
- Get to know at least one other person in class and exchange contact information. Study groups are encouraged.
- Get help as soon as you feel yourself falling behind! Don't wait!
- I have found that the best way for a student to study for a math exam is to practice working problems over and over.
- Everyone learns and studies differently. I encourage you to seek out and find what works best for you.

**Withdrawal Policy:** As required by Texas Education Code Section 51.907, all new students who enroll in a Texas public institution of higher education for the first time beginning with the 2007 fall semester and thereafter, are limited to six course drops throughout their entire undergraduate career. All course drops, including those initiated by students or faculty and any course a transfer student has dropped at another institution, automatically count toward the limit. After six grades of W are received, students must receive grades of A, B, C, D, or F in all courses. There are other exemptions from the six-drop limit and students should consult with a Counselor/Educational Planner before they drop courses to determine these exemptions. Students receiving financial aid must get in touch with the Financial Aid Office before withdrawing from a course. It is the student's responsibility to drop. Excessive absences (4 consecutive or 5 total) will result in an administrative withdrawal with a Grade of X or F. If you plan to withdraw, please consult with the instructor immediately. **Note: The last day to drop with a grade of W is Thursday, November 14, 2019.**

**Equal Opportunity:** South Plains College strives to accommodate the individual needs of all students in order to enhance their opportunities for success in the context of a comprehensive community college setting. It is the policy of South Plains College to offer all educational and employment opportunities without regard to race, color, national origin, religion, gender, disability, or age.

**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 Center 806- 716-2577, Reese Center (also covers ATC) Building 8: 806-716-4675, Plainview Center Main Office: 806-716- 4302 or 806-296-9611, or the Health and Wellness main number at 806-716-2529.

**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 (per the SPC faculty handbook).

**Sexual Misconduct Statement:** As a faculty member, I am deeply invested in the well-being of each student I teach. I am here to assist you with your work in this course. If you come to me with other non-course-related concerns, I will do my best to help. It is important for you to know that all faculty members are mandated reporters of any incidents of sexual misconduct. That means that I cannot keep information about sexual misconduct confidential if you share that information with me. The Director of Health & Wellness, can advise you confidentially as can any counselor in the Health & Wellness Center. They can also help you access other resources on campus and in the local community. You can get more information at 716-2563 or go by the Health and Wellness Center. You can schedule an appointment with a counselor by calling 716-2529.

**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, please refer to the SPC policy at: ([http://www.southplainscollege.edu/human\\_resources/policy\\_procedure/hhc.php](http://www.southplainscollege.edu/human_resources/policy_procedure/hhc.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

Week	Date	Day	Lesson/Assignment
1	Aug 27 <sup>th</sup>	Tues	<ul style="list-style-type: none"> <li>Syllabus Overview</li> <li>2.1 Symbols and Terminology</li> </ul>
	Aug 29 <sup>th</sup>	Thurs	<ul style="list-style-type: none"> <li>2.2 Venn Diagrams and Subsets</li> <li>2.3 Set Operations</li> </ul>
2	Sept 3 <sup>rd</sup>	Tues	<ul style="list-style-type: none"> <li>2.4 Surveys and Cardinal Numbers</li> <li>3.1 Statements and Quantifiers</li> </ul>
	Sept 5 <sup>th</sup>	Thurs	<ul style="list-style-type: none"> <li>3.2 Truth Tables and Equivalent Statements</li> <li>3.3 The Conditional and Circuits</li> </ul>
3	Sept 10 <sup>th</sup>	Tues	<ul style="list-style-type: none"> <li>3.4 The Conditional and Related Statements</li> <li>3.6 Analyzing Arguments with Truth Tables</li> </ul>
	Sept 12 <sup>th</sup>	Thurs	<ul style="list-style-type: none"> <li>6.3 Rational Numbers and Decimal Representation</li> <li>U.S. and Metric Systems of Measurement</li> </ul>
4	Sept 17 <sup>th</sup>	Tues	<ul style="list-style-type: none"> <li>6.4 Irrational Numbers and Decimal Representation</li> <li>Review for Exam 1</li> </ul>
	Sept 19 <sup>th</sup>	Thurs	<b>Exam 1 (Chapters 2, 3, 6, and Measurement)</b>
5	Sept 24 <sup>th</sup>	Tues	<ul style="list-style-type: none"> <li>7.2 Applications of Linear Equations</li> <li>7.3 Ratio, Proportion, and Variation</li> </ul>
	Sept 26 <sup>th</sup>	Thurs	<ul style="list-style-type: none"> <li>7.4 Linear Inequalities</li> <li>7.5 Properties of Exponents and Scientific Notation</li> </ul>
6	Oct 1 <sup>st</sup>	Tues	<ul style="list-style-type: none"> <li>7.6 Polynomials and Factoring</li> <li>7.7 Quadratic Equations and Applications</li> </ul>
	Oct 3 <sup>rd</sup>	Thurs	<ul style="list-style-type: none"> <li>8.1 The Rectangular Coordinate System and Circles</li> <li>8.2 Line, Slope, and Average Rate of Change</li> </ul>
7	Oct 8 <sup>th</sup>	Tues	<ul style="list-style-type: none"> <li>8.3 Equations of Lines</li> <li>8.4 Linear Functions, Graphs and Models</li> </ul>
	Oct 10 <sup>th</sup>	Thurs	<ul style="list-style-type: none"> <li>8.8 Applications of Linear Systems</li> <li>9.2 Curves, Polygons, Circles, and Geometric Constructions</li> </ul>
8	Oct 15 <sup>th</sup>	Tues	<ul style="list-style-type: none"> <li>9.3 The Geometry of Triangles: Congruence, Similarity, and the Pythagorean Theorem</li> <li>9.4 Perimeter, Area, and Circumference</li> </ul>
	Oct 17 <sup>th</sup>	Thurs	<ul style="list-style-type: none"> <li>9.5 Volume and Surface Area</li> <li>Review for Exam 2 (Chapters 7-9)</li> </ul>
9	Oct 22 <sup>nd</sup>	Tues	<b>Exam 2 (Chapters 7-9)</b>
	Oct 24 <sup>th</sup>	Thurs	<ul style="list-style-type: none"> <li>10.1 Counting by Systematic Listing</li> <li>10.2 Using the Fundamental Counting Principle</li> </ul>
10	Oct 29 <sup>th</sup>	Tues	<ul style="list-style-type: none"> <li>10.3 Using Permutations and Combinations</li> <li>10.5 Counting Problems Involving “Not” and “Or”</li> </ul>
	Oct 31 <sup>st</sup>	Thurs	<ul style="list-style-type: none"> <li>11.1 Basic Concepts</li> <li>11.2 Events Involving “Not” and “Or”</li> </ul>
11	Nov 5 <sup>th</sup>	Tues	<ul style="list-style-type: none"> <li>11.3 Conditional Probability and Events Involving “And”</li> <li>11.5 Expected Value and Simulation</li> </ul>
	Nov 7 <sup>th</sup>	Thurs	<ul style="list-style-type: none"> <li>12.1 Visual Displays of Data</li> <li>12.2 Measures of Central Tendency</li> </ul>
12	Nov 12 <sup>th</sup>	Tues	<ul style="list-style-type: none"> <li>13.1 The Time Value of Money</li> <li>13.2 Consumer Credit</li> </ul>
	Nov 14 <sup>th</sup>	Thurs	<ul style="list-style-type: none"> <li>13.4 The Costs and Advantages of Home Ownership</li> </ul>

			• 13.5 Financial Investments
13	Nov 19 <sup>th</sup>	Tues	• Review for Exam 3 (Chapters 10-13)
	Nov 21 <sup>st</sup>	Thurs	<b>Exam 3 (Chapters 10-13)</b>
14	Nov 26 <sup>th</sup>	Tues	<ul style="list-style-type: none"> <li>• 14.1* Angles and Their Measures</li> <li>• 14.2* Trigonometric Functions of Angles</li> <li>• 14.4* Right Triangles and Function Values</li> </ul> <p style="text-align: center;">*Note: Ch. 14 does not correspond to our book.</p>
	Nov 28 <sup>th</sup>	Thurs	No Class - Thanksgiving Holiday
15	Dec 3 <sup>rd</sup>	Tues	<ul style="list-style-type: none"> <li>• 14.5* Applications of Right Triangles</li> <li>• 14.6* The Laws of Sines and Cosines</li> </ul>
	Dec 5 <sup>th</sup>	Thurs	• Review for Final Exam
16	Dec 10 <sup>th</sup>	Tues	<b>Math 1332.005 Final Exam 10:15 a.m. – 12:15 p.m.</b>

**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**.

**Math 1332.006 (M/W 11:00 a.m. – 12:15 p.m.)**

<b>Week</b>	<b>Date</b>	<b>Day</b>	<b>Lesson/Assignment</b>
1	Aug 26 <sup>th</sup>	Mon	<ul style="list-style-type: none"> <li>• Syllabus Overview</li> <li>• 2.1 Symbols and Terminology</li> </ul>
	Aug 28 <sup>th</sup>	Wed	<ul style="list-style-type: none"> <li>• 2.2 Venn Diagrams and Subsets</li> <li>• 2.3 Set Operations</li> </ul>
2	Sept 2 <sup>nd</sup>	Mon	No Class – Labor Day Holiday
	Sept 4 <sup>th</sup>	Wed	<ul style="list-style-type: none"> <li>• 2.4 Surveys and Cardinal Numbers</li> <li>• 3.1 Statements and Quantifiers</li> </ul>
3	Sept 9 <sup>th</sup>	Mon	<ul style="list-style-type: none"> <li>• 3.2 Truth Tables and Equivalent Statements</li> <li>• 3.3 The Conditional and Circuits</li> </ul>
	Sept 11 <sup>th</sup>	Wed	<ul style="list-style-type: none"> <li>• 3.4 The Conditional and Related Statements</li> <li>• 3.6 Analyzing Arguments with Truth Tables</li> </ul>
4	Sept 16 <sup>th</sup>	Mon	<ul style="list-style-type: none"> <li>• 6.3 Rational Numbers and Decimal Representation</li> <li>• U.S. and Metric Systems of Measurement</li> </ul>
	Sept 18 <sup>th</sup>	Wed	<ul style="list-style-type: none"> <li>• 6.4 Irrational Numbers and Decimal Representation</li> <li>• Review for Exam 1</li> </ul>
5	Sept 23 <sup>rd</sup>	Mon	<b>Exam 1 (Chapters 2, 3, 6, and Measurement)</b>
	Sept 25 <sup>th</sup>	Wed	<ul style="list-style-type: none"> <li>• 7.2 Applications of Linear Equations</li> <li>• 7.3 Ratio, Proportion, and Variation</li> </ul>
6	Sept 30 <sup>th</sup>	Mon	<ul style="list-style-type: none"> <li>• 7.4 Linear Inequalities</li> <li>• 7.5 Properties of Exponents and Scientific Notation</li> </ul>
	Oct 2 <sup>nd</sup>	Wed	<ul style="list-style-type: none"> <li>• 7.6 Polynomials and Factoring</li> <li>• 7.7 Quadratic Equations and Applications</li> </ul>
7	Oct 7 <sup>th</sup>	Mon	<ul style="list-style-type: none"> <li>• 8.1 The Rectangular Coordinate System and Circles</li> <li>• 8.2 Line, Slope, and Average Rate of Change</li> </ul>
	Oct 9 <sup>th</sup>	Wed	<ul style="list-style-type: none"> <li>• 8.3 Equations of Lines</li> <li>• 8.4 Linear Functions, Graphs and Models</li> </ul>
8	Oct 14 <sup>th</sup>	Mon	<ul style="list-style-type: none"> <li>• 8.8 Applications of Linear Systems</li> <li>• 9.2 Curves, Polygons, Circles, and Geometric Constructions</li> </ul>
	Oct 16 <sup>th</sup>	Wed	<ul style="list-style-type: none"> <li>• 9.3 The Geometry of Triangles: Congruence, Similarity, and the Pythagorean Theorem</li> <li>• 9.4 Perimeter, Area, and Circumference</li> </ul>
9	Oct 21 <sup>st</sup>	Mon	<ul style="list-style-type: none"> <li>• 9.5 Volume and Surface Area</li> <li>• Review for Exam 2 (Chapters 7-9)</li> </ul>
	Oct 23 <sup>rd</sup>	Wed	<b>Exam 2 (Chapters 7-9)</b>
10	Oct 28 <sup>th</sup>	Mon	<ul style="list-style-type: none"> <li>• 10.1 Counting by Systematic Listing</li> <li>• 10.2 Using the Fundamental Counting Principle</li> </ul>
	Oct 30 <sup>th</sup>	Wed	<ul style="list-style-type: none"> <li>• 10.3 Using Permutations and Combinations</li> <li>• 10.5 Counting Problems Involving “Not” and “Or”</li> </ul>
11	Nov 4 <sup>th</sup>	Mon	<ul style="list-style-type: none"> <li>• 11.1 Basic Concepts</li> <li>• 11.2 Events Involving “Not” and “Or”</li> </ul>
	Nov 6 <sup>th</sup>	Wed	<ul style="list-style-type: none"> <li>• 11.3 Conditional Probability and Events Involving “And”</li> <li>• 11.5 Expected Value and Simulation</li> </ul>
12	Nov 11 <sup>th</sup>	Mon	<ul style="list-style-type: none"> <li>• 12.1 Visual Displays of Data</li> <li>• 12.2 Measures of Central Tendency</li> <li>•</li> </ul>
	Nov 13 <sup>th</sup>	Wed	<ul style="list-style-type: none"> <li>• 13.1 The Time Value of Money</li> </ul>



			<ul style="list-style-type: none"> <li>• 13.2 Consumer Credit</li> </ul>
13	Nov 18 <sup>th</sup>	Mon	<ul style="list-style-type: none"> <li>• 13.4 The Costs and Advantages of Home Ownership</li> <li>• 13.5 Financial Investments</li> </ul>
	Nov 20 <sup>th</sup>	Wed	<ul style="list-style-type: none"> <li>• Review for Exam 3 (Chapters 10-13)</li> </ul>
14	Nov 25 <sup>th</sup>	Mon	<b>Exam 3 (Chapters 10-13)</b>
	Nov 27 <sup>th</sup>	Wed	No Class - Thanksgiving Holiday
15	Dec 2 <sup>nd</sup>	Mon	<ul style="list-style-type: none"> <li>• 14.1* Angles and Their Measures</li> <li>• 14.2* Trigonometric Functions of Angles</li> <li>• 14.4* Right Triangles and Function Values</li> </ul> <p style="text-align: center;">*Note: Ch. 14 does not correspond to our book</p>
	Dec 4 <sup>th</sup>	Wed	<ul style="list-style-type: none"> <li>• 14.5* Applications of Right Triangles</li> <li>• 14.6* The Laws of Sines and Cosines</li> <li>• Review for Final Exam</li> </ul>
16	Dec 9 <sup>th</sup>	Mon	Math 1332.006 Final Exam 10:15 a.m. – 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**.