

South Plains College
Common Course Syllabus: MATH 2412
Revised December 2019

Department: Mathematics, Engineering, and Computer Science

Discipline: Mathematics

Course Number: MATH 2412

Course Title: Pre-Calculus

Available Formats: conventional

Campuses: Levelland and Dual Credit

Course Description: In-depth combined study of algebra, trigonometry, and other topics for calculus readiness.

Prerequisite: Minimum score of 350 on the TSIA, TSI-exempt status, or a successful completion with a grade of 'C' or better in MATH 1314.

Credit: 4 **Lecture:** 3 **Lab:** 2

Textbook: *Pre-Calculus*, Abramson, OpenStax

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. Demonstrate and apply knowledge of properties of functions.
2. Recognize and apply algebraic and transcendental functions and solve related equations.
3. Apply graphing techniques to algebraic and transcendental functions.
4. Compute the values of trigonometric functions for key angles in all quadrants of the unit circle measured in both degrees and radians.
5. Prove trigonometric identities.
6. Solve right and oblique triangles.

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 Policy: Attendance and effort are the most important activities for success in this course. Records of your attendance are maintained throughout the semester. Five (5) absences, **for any reason**, are allotted to the student for the semester. Tardies count as one-half (1/2) of an absence. Tardies will be applied for consistently being late to class, as deemed by the instructor and leaving class early. If this number is exceeded, the instructor has the right to drop you with a grade of F or an X, depending on their 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.

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](mailto: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

* The submission of the syllabus receipt is required.

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.

Religious Holy Days: In accordance with Section 51.911, Texas Education Code, South Plains College will allow a student who is absent from class for the observance of a religious holy day to take an examination or complete an assignment scheduled for that day within seven (7) calendar days after the absence. Students are required to file a written notification of absence with each instructor within the first fifteen (15) days of the semester (**Monday, 3 February 2020**) in which the absence will occur. Forms for this purpose are available in the Student Services Office along with instructions and procedures. "Religious holy days" means a holy day observed by a religion whose place of worship is exempt from property taxation under Section 11.20, Tax Code. (copied from current South Plains College catalog)

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

Mathematics 2412 – Pre-Calculus**Section:** 001, Monday and Wednesday, 8:30 A.M.**Room:** Levelland Mathematics Building 123

Instructor: Sheyleah V. Harris-Plant, Ph.D.**Room:** Levelland Math Building 120**Phone:** (806) 716-2665**Email:** sharris@southplainscollege.edu**Office Hours:** Monday and Wednesday: Levelland Campus 14:00 – 16:00

Tuesday and Thursday: Levelland Campus 08:00 – 08:30 and 10:45-12:15

Or By Appointment

Note about Office Hours: Any student is more than welcome to visit during office hours, however, for the student's visit to be most effective it is best to make an appointment. Students from other classes are often visiting during office hours and other college responsibilities often prevent office hours without notice.**Course Materials:** Spiral in South Plains College bookstore titled Precalculus: An Integrated Approach by Sheyleah Harris-Plant.**Supplies:** Pencil, 8.5-inch x 11-inch paper, graph paper, ruler, stapler, and erasers (**SCIENTIFIC CALCULATORS ALLOWED, NO GRAPHING CALCULATORS**)**Reference Textbooks:** (The textbook is not required for the course, but the student is welcome to purchase any of the following textbooks.)

Larson, R. (2010). Precalculus, 8th ed, Brooks/Cole. ISBN 9781439045770

OpenStax., (2014). Precalculus, OpenStax CNX. ISBN 9781938168345

Rockswold, G., (2010). Precalculus with Modeling & Visualization, 4th ed, Pearson. ISBN 9780321568007

Stewart, J., (2011). Precalculus: Mathematics for Calculus, 6th ed, Brooks/Cole. ISBN 9780840068071

Young, C. Y. (2014). Precalculus, 2nd ed, New Jersey: John Wiley & Sons, Inc. ISBN 9780470904138

Supplementary Course InformationBlackboard is the online course management system that will be used for this course. This course syllabus, as well as any class handouts, can be accessed through Blackboard. Login at <https://southplainscollege.blackboard.com/>. The user name and password should be the same as the MySPC and SPC email.**User name:** first initial, last name, and last 4 digits of the Student ID**Password:** Original CampusConnect Pin No. (found on SPC acceptance letter)**“Intelligence plus character – that is the goal of true education.” – Dr. Martin Luther King, Jr.****“Hard work is required, but must also produce value.” – Norman Chaffee****“True knowledge exists in knowing that you know nothing.” – Socrates****“There is no end to education. It is not that you read a book, pass an examination, and finish with education. The whole of life, from the moment you are born to the moment you die, is a process of learning.” – Jiddu Krishnamurti****“In the United States, we experience many freedoms. Two of these freedoms include the freedom to succeed and the freedom to fail. Which one will you choose?” – Alan Worley**

Class Cancellation

In the event of the class being canceled by the school, the student will be responsible for the lecture material. The class will continue on the calendar presented. All information needed is on Blackboard and should be accessed by the student.

Withdrawal

If you wish to withdraw from this class for any reason, you must initiate the appropriate steps on your own. To withdraw from this class, you will need to go to the Admissions and Records office either on the Levelland campus or the Reese Center campus, and fill out a drop notification form, and pay \$5. The drop form can be obtained online in MySPC, under the Student Forms and Tools link. Please be aware that SPC may not permit an undergraduate student to drop a total of more than six courses (including any course a transfer student has dropped at another institution of higher education) if the student enrolled in college for the first time during the Fall 2007 academic term or any term subsequent to the Fall 2007 term.

Email Policy

All students at South Plains College are assigned a standardized SPC e-mail account. Although personal e-mail 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 MySPC and click the SPC Google Mail option under Campus Bookmarks. (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.

Final Grading Policy

All grades are rounded from the tenths place. Upon the submission of grades at the end of the semester, **ALL GRADES ARE FINAL!**

Grading Scale

90 or above	A
80 to 89	B
70 to 79	C
60 to 69	D
59 and Below	F

Assignment Weights

Practice Assessment		32 points
<i>Syllabus Receipt</i>	1 @ 1 point	1 point
<i>Office Visit</i>	1 @ 1 point	1 point
<i>Quizzes</i>	10 @ 3 points	30 points
Aptitude Assessment		68 points
<i>Exams</i>	4 @ 12 points	48 points
<i>Final Exam</i>	1 @ 20 points	20 points
Total Points		100 points
Extra Credit Points		
<i>Quizzes</i>	4 @ 3 point	12 points

All supplemental material and your current grade are available all semester on South Plains College's Blackboard server.

Feedback

The instructor will usually return feedback by the next class day; however, they reserve the right to have one (1) week to grade assignments and post grades from the due date.

Holiday/Travel Statement*

If a student has pre-existing plans to travel out of the area during scheduled class times, you must inform the instructor by **NO LATER THAN Monday, 3 February 2020**, at the end of class and submit the syllabus receipt. Failure to do so will result in the forfeiture of any assignments that will come into question during your dates of absence. These assignments will not be replaced or allowed for make-up work.

Resources

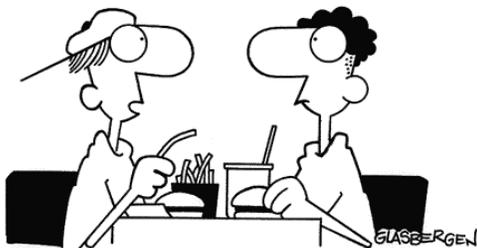
- **Free** tutoring at Levelland is available in room 116 of the Mathematics-Engineering Building, at the Reese Center campus in room RC 212 in Building 2, and at the Lubbock Center Computer Lab in

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Lubbock (3907 Avenue Q). Please remember to sign in when you seek the help of a tutor in each of these places.

- The South Plains College Department of Mathematics and Engineering has put one copy of the textbook for this course on reserve in the **Levelland and Reese Campus** Library.
- There are exam reviews on Blackboard for the student's use.

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http://www.norwich.net/~randyg/toon.html



"I forgot to make a back-up copy of my brain, so everything I learned last semester was lost."



Homework

Achieving success in this class will require giving regular effort outside of class, meaning doing homework. If you plan to be successful in this class, expect to spend a **minimum** of 8 to 12 hours outside of class every week maintaining or increasing your math skills. Homework is a planned practice for students to master the skills taught in class and needed in higher-level mathematics courses.

Every student is encouraged to do homework. Homework will be assigned daily. The homework will not be graded. However, the practice is required in order to more fully understand each topic and to successfully negotiate the quizzes and the exams.

Quizzes

Quizzes will be given and homework collected weekly to assess if the student is practicing and mastering their math skills (doing homework). Questions will be similar to the questions in the assigned homework. No make-up quizzes will be allowed. Fourteen (14) quizzes will be administered, however, only ten (10) quizzes are counted in the one hundred (100) points for the course. The extra four (4) quizzes are built-in extra credit for the student.

Exams*

Exams are used to assess the amount of the course objectives that the student has mastered. The answer boxed will be the answer graded and only one answer will be graded, so the answer seen will be the one graded. Tentative exam dates are noted in the class calendar. Students have the scheduled class time to take exams and the time scheduled by the college to take the final exam. No student will be allowed to begin an exam after the first person has turned in their exam and left the classroom. If the student does poorly on their first exam, they are **required** to schedule an appointment to discuss their performance with the instructor in their office.

If a student should have to miss an exam, the instructor will consider replacing the missed exam with the final exam score if the following conditions have been met:

1. Turn in their syllabus receipt, and
2. Notify the instructor before the exam is missed.

Exam Corrections

Students are able to correct one exam (excluding the final exam), of their choice, by the last day of the class (the last class before Final's Week) for seventy-five percent (75%) of their missed points. To complete the exam correction, the student will correct the questions missed on the exam on a different sheet of paper and return the corrections with the original exam.

Final Exam*

There will be a **comprehensive** final exam at the end of the semester. Failure to attempt the final exam will result in a failing grade for the course. The final exam will be given at the scheduled time determined by South Plains College, not during class time. Conflicts in test schedules should be worked out with individual instructors. A student's library records and all financial records must be clear before the student will be allowed to take final examinations in any course.

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Expectations of the Instructor

The student is within all rights to expect that the instructor does the following:

- Show up, as scheduled, to teach all the information pertaining to the course.
- Provide notice of any schedule changes.
- Maximize the time allotted for this course by assessing student aptitude for covered information at the close of each lecture, when time permits.
- Present the material in a manner that can generally be understood by the majority of the class.
- Be accessible to those who need assistance outside of the classroom setting, by way of e-mail or in person, during office hours or reasonably scheduled appointment times.
- Hold to any assignment(s) given during the course of the semester unless removed.
- Uphold the policies of the college as it pertains to the student's welfare in the course.
- Not make any exceptions regarding the dismissal of any student from the course for reasons listed herein.
- Allow each student the opportunity to discuss the material presented during the lecture period.
- Provide examinations based on the information discussed in class that contains problems that use solving methods **similar** to those assigned from sections pertaining to the exam.

Expectations of the Student

The instructor is within all rights to expect that the student does the following:

- Show up on time, as scheduled, to receive and learn all information pertinent to the course and be mindful of any schedule changes.
- If you are going to withdraw from this course, then **all withdrawals must be done by Thursday, 23 April 2020**. There will be no withdrawals given after this date.
- READ THE SYLLABUS!!! You will remain subject to the criteria outlined herein whether you read this or not, so it is in your best interest to do so!
- Take advantage of **all** the resources available to you. In the collegiate setting, all students are considered adults and are expected to uphold conduct worthy of such consideration.
- Be mindful of the classroom setting and the roles therein. While student tuition is vital to the well-being of this academic institution, this does NOT warrant the concession of an instructor to you in a manner that compromises the integrity of the classroom setting and that of the institution itself.
- Bring all materials needed for the course and refrain from bringing anything that is not needed.
- Be willing to work together with – **BUT NOT DO WORK FOR** – fellow classmates.
- Keep all homework assignments organized in a binder. This will prove to be helpful in preparing for the exams.
- **Write all graded work legibly and in pencil only. All work not done in pencil will not be accepted by the instructor and will cause you to receive a grade of zero percent (0%) for the work in question.**
- Work homework early enough to get help, if needed.
- Turn all electronic devices **off** that have no use in the classroom setting. This means all music players, cellular telephones (or cell phones), pagers, etc. In the event that a cell phone must be on (family emergencies only), then the phone must be on vibrate mode and placed on your desk or table. If an unsanctioned device is in use during an exam, then its grade will be zero percent (0%) and possible removal from the course.
- Obtain all missed information and assignments from a fellow classmate. **NO LATE WORK will be accepted!!!**

Homework Assignments are **assigned** on the day shown in the chart.

Date	Topic	Assignments
Tuesday, 14 January	Introduction	Syllabus Receipt
Outline for Exam 1		
Thursday, 16 January <i>Quiz 1</i>	Angles	#1-34 all
	Non-Acute Angles	#1-25 all
Monday, 20 January	No Class (Martin Luther King, Jr Day)	
Tuesday, 21 January	Functions and Function Notation	#1-39 all
	Linear Functions	#1-29 all
Thursday, 23 January <i>Quiz 2</i>	Quadratic Functions	#1-20 all
	Polynomial Functions	#1-12 all
Tuesday, 28 January <i>Quiz 3</i>	Radical Functions	#1-6 all
	Rational Functions	#1-4 all
Thursday, 30 January <i>Quiz 4</i>	Definition of Trigonometric Functions	#1-20 all
	Non-Standard Position Angles	#1-15 all
Thursday, 4 February Exam 1 Given	Graphs of the Trigonometric Functions	#1-8 all
Tuesday, 11 February	Exam 1 Due (12 points)	
Outline for Exam 2		
Thursday, 6 February	No Class	
Tuesday, 11 February Exam 1 Due	Exponential Functions	#1-13 all
	Logarithmic Functions	#1-25 all
Thursday, 13 February <i>Quiz 5</i>	Properties of Logarithmic Functions	#1-20 all
	Fundamental Identities	#1-45 all
Tuesday, 18 February	Sum and Difference Identities	#1-12 all
	Double-Angle Identities	#1-8 all
Thursday, 20 February <i>Quiz 6</i>	Half-Angle and Power Reducing Identities	#1-13 all
	Sum-to-Product and Product-to-Sum Identities	#1-7 all
Tuesday, 25 February	Combining Functions	#1-20 all
	Inverse Functions	#1-40 all
Thursday, 27 February <i>Quiz 7</i> Exam 2 Given	Transformations	#1-30 all
	Binomial Expansion	#1-20 all
Tuesday, 3 March	Exam 2 Due (12 points)	
Outline for Exam 3		
Tuesday, 3 March Exam 2 Due	Other Types of Equations	#1-40 all
Thursday, 5 March <i>Quiz 8</i>	Exponential and Logarithmic Equations	#1-20 all
Tuesday, 10 March	Roots of Polynomial Functions	#1-12 all
	Systems of Equations	#1-25 all
Thursday, 12 March <i>Quiz 9</i>	Inequalities in One Variable	#1-30 all
	Rates of Change	#1-17 all
Tuesday, 17 March	No Class (Spring Break)	
Thursday, 19 March	No Class (Spring Break)	
Tuesday, 24 March	Partial Fractions	#1-12 all
Thursday, 26 March <i>Quiz 10</i> Exam 3 Given	Sequences and Series	#1-18 all
	Geometric Sequences and Series	#1-19 all
Tuesday, 31 March	Exam 3 Due (12 points)	
Outline for Exam 4		

Date	Topic	Assignments
Tuesday, 31 March <i>Exam 3 Due</i>	Parabolas	#1-20 all
	Ellipses	#1-19 all
Thursday, 2 April <i>Quiz 11</i>	Circles	#1-15 all
	Hyperbolas	#1-12 all
Tuesday, 7 April	Plane Curves and Parametric Equations	#1-16 all
Thursday, 9 April <i>Quiz 12</i>	Using a Calculator	#1-12 all
	Solving Right Triangles	#1-9 all
Monday, 13 April	No Class (Easter Break)	
Tuesday, 14 April	Law of Sines	#1-9 all
	Law of Cosines	#1-10 all
Tuesday, 23 April	Exam 4 Due (12 points)	
Comprehensive Final Exam		
Thursday, 16 April <i>Quiz 13</i> <i>Exam 4 Given</i>	Triangle Applications	#1-23 all
	Radian Applications	#1-10 all
Tuesday, 21 April <i>Exam 4 Due</i>	Symbolic Algebraic Manipulation	#1-25 all
Thursday, 23 April <i>Quiz 14</i> LAST DAY TO DROP	Verifying Trigonometric Identities	#1-16 all
Tuesday, 28 April	Vectors and Dot Product	#1-30 all
	Vector Applications	#1-14 all
Thursday, 30 April	Final Exam Question Session	
Tuesday, 5 May	Final Exam (20 points) – 0800-1000	