

**South Plains College**  
**Common Course Syllabus: MATH 2413**  
**Fall 2022**

**Department:** Mathematics, Engineering, and Computer Science

**Discipline:** Mathematics

**Course Number:** MATH 2413

**Course Title:** Calculus I

**Available Formats:** conventional, hybrid, and internet

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

**Course Description:** Limits and continuity, the Fundamental Theorem of Calculus, definition of the derivative of a function and techniques of differentiation, applications of the derivative to maximizing or minimizing a function, the chain rule, mean value theorem, and rate of change problems, curve sketching, definite and indefinite integration of algebraic, trigonometric, and transcendental functions, with an application to calculation of areas.

**Prerequisite:** Successful completion with a grade of 'C' or better in MATH 2412 or successful completion with a grade of 'C' or better in MATH 1314 and MATH 1316.

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

**Textbook:** *Calculus, Volume 1*, Strang and Herman, 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. Develop solutions for tangent and area problems using the concepts of limits, derivatives, and integrals.
2. Draw graphs of algebraic and transcendental functions considering limits, continuity, and differentiability at a point.

3. Determine whether a function is continuous and/or differentiable at a point using limits.
4. Use differentiation rules to differentiate algebraic and transcendental functions.
5. Identify appropriate calculus concepts and techniques to provide mathematical models of real-world situations and determine solutions to applied problems.
6. Evaluate definite integrals using the Fundamental Theorem of Calculus.
7. Articulate the relationship between derivatives and integrals using the Fundamental Theorem of Calculus.

**Student Learning Outcomes Assessment:** 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. 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 cannot receive an X, the instructor will assign an F.

**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.

**COVID Syllabus Statement:** It is the policy of South Plains College that as a condition of on-campus enrollment, all students are required to engage in safe behaviors to avoid the spread of COVID-19 in the SPC community. There will be no requirement for face coverings at any location on any South Plains College campus or classroom. Faculty, staff, or students may continue to wear a mask voluntarily, but there will be no requirements for face coverings in any circumstance.

If you are experiencing any of the following symptoms please do not attend class and either seek medical attention or get tested for COVID-19.

- Cough, shortness of breath, difficulty breathing
- Fever or chills
- Muscles or body aches
- Vomiting or diarrhea
- New loss of taste and smell

Students who believe they have been exposed or may be COVID-19 positive, must notify DeEtte Edens, BSN, RN, Associate Director of Health & Wellness, at [dedens@southplainscollege.edu](mailto:dedens@southplainscollege.edu) or 806-716-2376.

**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 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 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, Lubbock Centers (located at the Lubbock Downtown Center) 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 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](mailto:dburleson@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 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.

**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.*

South Plains College  
Math 2413 – Calculus I (4:3:1)  
Course Syllabus  
Fall 2022

**Instructor:** Diane Eagle

**Office:** B015, Lubbock Downtown Center (basement)

**Phone:** 806-716-2736

**E-mail:** [deagle@southplainscollege.edu](mailto:deagle@southplainscollege.edu)

**Office Hours:**

| Monday                      | Tuesday                     | Wednesday                                  | Thursday                    | Friday        |
|-----------------------------|-----------------------------|--|-----------------------------|---------------|
| 10:30 – 11:00<br>2:15– 3:00 | 10:30 – 11:00<br>2:15– 3:00 | 10:30 – 11:00<br>2:15– 3:00<br>4:30 – 5:30 | 10:30 – 11:00<br>2:15– 3:00 | 10:00 – 12:00 |

**Course format:** This is a hybrid class utilizing a flipped classroom model. Course materials will be posted online and must be reviewed PRIOR to attending class. Students will attend one class meeting per week. Classroom time is reserved for face-to-face discussion of homework problems and completion of in-class assignments and/or quizzes. This course may be moved online at a future date, in response to COVID-19 safety requirements.

**Supplies:** Pencils, paper, straightedge, and graph paper. The required textbook is available for free download online; you may also purchase a print version. Go to: [www.openstax.org/details/calculus-volume-1](http://www.openstax.org/details/calculus-volume-1) **Only a basic non-graphing calculator will be allowed in class.** Graphing calculators and calculators on cell phones or other electronic devices or apps will **NOT** be allowed during tests or in-class assignments. Suitable face coverings are optional, but not required. (Refer to earlier section titled “COVID Syllabus Statement.”)

**Technology requirements:** Students need to have reliable access to the Internet and email. Ability to scan and upload assignments in PDF format is required.

**Email:** Your SPC email account will be used for all correspondence and notifications. When emailing me, be sure to include your name, class, and section number. Do NOT use the “course messages” link in Blackboard as I rarely check it. Provide problem/page numbers or a screen shot if applicable.

**Course Evaluation:** Your final grade will be determined by the average of three tests (300 points) the comprehensive final exam (150 points) and in-class and online assignments (150 points.) A total of 600 points are possible. The number of points earned will follow the grading scale below:

|                       |   |           |                   |
|-----------------------|---|-----------|-------------------|
| <b>Grading Scale:</b> | A | 90 to 100 | 537 to 600 points |
|                       | B | 80 to 89  | 477 to 536 points |
|                       | C | 70 to 79  | 417 to 476 points |
|                       | D | 60 to 69  | 357 to 416 points |
|                       | F | Below 60  | 0 to 356 points   |

**Exams:** Dates for the 3 major tests and comprehensive final exam are listed on the calendar. Exams will be conducted face-to-face, provided this course does not move fully online. If you miss one of the 3 major tests, your score on the final exam will replace the missing grade. A second missed test will be averaged as a zero. If no tests were missed, the final exam grade (if higher) will replace the lowest major exam grade; however, if the final exam is lower than any of the 3 major exam grades, then it will only count once in the course average.

**Homework and class assignments:** Homework is assigned from each section covered, and time will be available during class to ask questions. Consistently working problems reinforces the skills and concepts presented, and is essential for success in this course. All steps/work must be shown and the answer clearly indicated to receive full credit; do not submit “answer sheets.” **Absolutely NO late assignments will be accepted.** The lowest two in-class quiz grades will be dropped at the end of the semester. Homework and quizzes account for 150 points, or 25% of your overall average.

**Bonus Points:** Students will have the opportunity to make corrections on **one** test (final exam not included) of their choosing, for up to 50% of the points missed. Corrections are due the following class period after the test is graded and handed back. Test corrections must have complete and correct solutions and/or explanations and be turned in on a separate sheet of paper with the exam. Occasionally, opportunities for additional bonus points are posted on Blackboard as well. Bonus points add into the cumulative points earned.

**Additional Resources:** Blackboard is the online management system used for this course. In addition to the grade book, all course materials, including the syllabus, calendar, lecture videos, handouts, test reviews, and additional resources can be accessed through Blackboard. Handouts accompanying the lecture videos are available to download and complete while viewing the lecture videos. **Be sure to check Blackboard and your SPC email account regularly for class announcements and updates.**

**Tutoring:** Tutoring services are available to students at no charge. Links to access online tutoring and instructions for booking face-to-face appointments with SPC tutors will be posted on Blackboard.

**Attendance Policy:** Refer to page 2 above. Students who arrive to class late, leave early, sleep during class, or habitually access their cell phones during class, may be counted absent. Whenever absences become excessive and, in the instructor’s opinion, minimum course objectives cannot be met due to absences, the student will be withdrawn from the course. Students wishing to drop this class must see the registrar by Thursday, December 1, 2022 to officially withdraw and receive a grade of W.

**Classroom Civility:** Students are expected to be respectful of their fellow classmates and maintain a classroom environment that is conducive to learning. Please model safe behaviors to protect the health of yourself and others. (Refer to earlier section titled “COVID Syllabus Statement.”) Silence cell phones and other electronic devices **before** entering the classroom. While usage of cell phones for class-related activities, such as viewing lessons or scanning and uploading completed assignments IS permissible, **usage unrelated to class will NOT be tolerated.** You will receive ONE verbal warning, after which you will be asked to leave and receive a zero for that day’s assignment. Refrain from using offensive language, talking loudly or off-topic, working on outside assignments, chewing tobacco products, or otherwise being disruptive in class. Food and/or drinks are NOT allowed in the classroom.

**Academic Honesty:** Students are expected to uphold the ideas of academic honesty. Refer to pages 2 and 3 for explanations of what constitutes academic dishonesty and plagiarism. **Use of a graphing calculator, cell phone, or other electronic devices or apps during an in-class assignment, quiz, or exam will result in a grade of zero.** Leaving the classroom during an exam or quiz will not be permitted. Students who do not follow the academic honesty policy will receive a grade of zero for the assignment, and may be dropped from the course with an F, or face possible suspension from the college.

**Calendar:** The following schedule outlines each week's topics and test dates. Course materials and assignments will be posted online for each section and are to be reviewed/completed PRIOR to attending class. This schedule is tentative and subject to revision. Any changes will be announced in class as well as updated via Blackboard.

## MATH2413.601– FALL 2022

| Week | Date              | Topics covered                            | Activity      |
|------|-------------------|---|---------------|
| 1    | Aug. 31           | Syllabus, Chapter 1 – prerequisite skills |               |
| 2    | Sept. 7           | Review sections 2.2, 2.3, 2.4             | Quiz 1        |
| 3    | Sept. 14          | Review sections 3.1, 3.3                  | Quiz 2        |
| 4    | Sept. 21          | Review sections 3.4, 3.5, 3.6             | Quiz 3        |
| 5    | Sept. 28          | <b>TEST 1</b>                             |               |
| 6    | Oct. 5            | Review sections 3.7, 3.8                  | Quiz 4        |
| 7    | Oct. 12           | Review sections 3.9, 4.1                  | Quiz 5        |
| 8    | Oct. 19           | Review sections 4.5, 4.6                  | Quiz 6        |
| 9    | Oct. 26           | <b>TEST 2</b>                             |               |
| 10   | Nov. 2            | Review sections 4.7, 4.10                 | Quiz 7        |
| 11   | Nov. 9            | Review sections 5.1, 5.2, 5.3, 5.5        | Quiz 8        |
| 12   | Nov. 16           | Review sections 5.6, 6.1                  | Quiz 9        |
| 13   | Nov. 23           | <b>THANKSGIVING</b>                       | <b>TEST 3</b> |
| 14   | Nov. 30           | Review sections 6.2, 6.3                  | Quiz 10       |
| 15   | Dec. 7            | Review sections 6.4, 6.6                  | Quiz 11       |
| 16   | Dec. 12<br>Monday | <b>FINAL EXAM 5:30 pm – 7:30 pm</b>       |               |

**\*\*\*Last day to drop is Thursday, December 1, 2022\*\*\***