

**South Plains College**  
**Common Course Syllabus: MATH 2414**  
**Revised August 2021**

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

**Discipline:** Mathematics

**Course Number:** MATH 2414

**Course Title:** Calculus II

**Available Formats:** conventional and hybrid

**Campuses:** Levelland and Reese

**Course Description:** Differentiation and integration of transcendental functions; parametric equations and polar coordinates; techniques of integration; sequences and series; improper integrals.

**Prerequisite:** Successful completion with a grade of 'C' or better in MATH 2413

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

**Textbook:** *Calculus, Volume 2*, Strang and Herman, OpenStax

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

**This course partially satisfies a Core Curriculum Requirement:** None

**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 successful completion of this course, students will:

1. Use the concepts of definite integrals to solve problems involving area, volume, work, and other physical applications.
  - a. Section 2.1: Areas Between Curves
  - b. Section 2.2: Determine Volumes by Slicing
  - c. Section 2.3: Volumes of Revolution: Cylindrical Shells
  - d. Section 2.5: Physical Applications
  - e. Section 2.6: Moments and Centers of Mass
  - f. Section 2.8: Exponential Growth and Decay
2. Use substitution, integration by parts, trigonometric substitution, partial fractions, and tables of antiderivatives to evaluate definite and indefinite integrals.
  - a. Section 1.5: Substitution
  - b. Section 3.1: Integration by Parts
  - c. Section 3.2: Trigonometric Integrals
  - d. Section 3.3: Trigonometric Substitutions
  - e. Section 3.4: Partial Fractions
  - f. Section 3.5: Other Strategies for Integration
  - g. Section 3.6: Numerical Integration
3. Define an improper integral. (Section 3.7)
4. Apply the concepts of limits, convergence, and divergence to evaluate some classes of improper integrals. (Section 3.7)
5. Determine convergence or divergence of sequences and series.
  - a. Section 5.1: Sequences
  - b. Section 5.2: Infinite Series
  - c. Section 5.3: The Divergence and Integral Tests
  - d. Section 5.4: Comparison Tests
  - e. Section 5.5: Alternating Series
  - f. Section 5.6: Ratio and Root Tests
6. Use Taylor and Maclaurin series to represent functions.
  - a. Section 6.1: Power Series and Functions
  - b. Section 6.2: Properties of Power Series
  - c. Section 6.3: Taylor and Maclaurin Series
7. Use Taylor or Maclaurin series to integrate functions not integrable by conventional methods. (Section 6.4)
8. Use the concept of polar coordinates to find areas, lengths of curves, and representations of conic sections. (Chapter 7: Parametric Equations and Polar Coordinates)

**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. 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 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.

**Student Code of Conduct Policy:** Any successful learning experience requires mutual respect from the student and the instructor. Neither the instructor nor the student should be subject to others' rude, disruptive, intimidating, aggressive, or demeaning behavior. 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  
<https://www.southplainscollege.edu/syllabusstatements/>.

South Plains College policies, return to campus plan, and protocols regarding COVID-19 can be found here: <https://www.southplainscollege.edu/emergency/covid19-faq.php>.

**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.

**MATH 2414—Calculus II**  
**South Plains College**  
**Spring Semester 2026**

**Section:** 601, MW, 6:00 – 8:05 PM [Face-to-Face]

**Rooms:** Lubbock Downtown Center, Room B010

**Instructor:** Mr. Robert E. Plant, II, M.S.

**Office Info:** Room—Levelland Math Bldg. 116B

Phone—(806) 716-2734

Hours—the following table will display the regular office hours.

<b>Monday (LV)</b>	<b>Tuesday (LB)</b>	<b>Wednesday (LV)</b>	<b>Thursday (LB)</b>	<b>Friday (Flex)</b>
14:30-15:45	16:00-17:15	14:30-15:45	16:00-17:15	9:00 – 12:00

**OR BY APPOINTMENT:** [Virtual Office Hours](#) (LV: Levelland; LB: Lubbock)

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

**O.P.I.\*:** This syllabus is © 2026 by Mr. Robert E. Plant, II

\* O.P. I. means “other pertinent information,” or in layman terms, “something else that you need to know.”

**Tutoring:** Tutoring is FREE for all currently enrolled students. Make an appointment or drop-in for help at any SPC location or online! Visit the [SPC Tutoring Webpage](#) to learn more about how to book an appointment, view the tutoring schedule, and view tutoring locations.

You also have access to FREE tutoring with Brainfuse after normal tutoring hours each week. Log into Blackboard Ultra, then look for it in the “Supplemental Links” module.

You may access Brainfuse during the following times:

**Monday – Thursday: 8 PM to 8 AM (next day) OR 6 PM Friday evening to 8 AM Monday morning**

For questions regarding tutoring, please email [SPC Tutoring](#) or call 806-716-2538.

**“You must go through TSA to pass: Think, Speak, and Act accordingly...”**

**—Instructor**

## **Expectations of the Student for the Instructor**

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

- Show up, as scheduled, and mutually agreed upon, to teach all information pertaining to the course.
- Use the entirety of the lecture period, physical or virtual, as well as the allotted lab time for this course.
- Provide notice of any schedule changes.
- Maximize the time allotted for this course by assessing student aptitude of covered information when time permits.
- Present the material in a manner that can generally be understood by the class at large.
- 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.
- Respond to all contact attempts in a timely and discretionary manner.
- Hold to the schedule for any assignment(s) given over the semester unless removed or adjusted.
- 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 contain problems which use solving methods *like* those assigned from sections pertaining to the exam.

## **Expectations of the Instructor for the Student**

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

- Show up as scheduled and mutually agreed upon to receive and learn all information pertinent to the course and be mindful of any schedule changes.
- Take advantage of *all* available resources, which include the Office Hours and the Tutoring Lab, as presented in the syllabus.
- Be respectful of your peers and the instructor as stated in the SPC Student Handbook.
  - In the collegiate setting, all students are considered adults and are expected to uphold conduct worthy of such consideration.
  - Failure to do so provides enough grounds for the student to be dismissed from the course.

- Be willing to work with—**BUT NOT DO WORK FOR**—fellow classmates.
  - Networking is an essential tool both in the workforce and in the classroom; furthermore, the greater the numbers of minds there are involved, the less mental labor is required for everyone.
  - Virtual networking will very much be a necessity. Use Skype, Teams, or other virtual conferencing interfaces to interact with each other (when permitted).
  - No one is an island... **except on the exams!**
- 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 any instructor to you in a manner that compromises the integrity of the classroom setting and that of the institution itself.
- ***Write all graded work legibly. All work not understood by me will not be accepted by me and will cause you to receive a grade of zero percent (0%) for the work in question.***
- Turn all electronic devices **off** that have no use in the face-to-face classroom setting.
  - This means all music players, cellular telephones (or cell phones), etc.
  - If a cell phone must be on (family emergencies only), then
    - The instructor must be notified **before** the beginning of the period and
    - The phone must be put on vibrate mode and placed **screen down** on your desk.
  - ***Tablets and digital notebooks during face-to-face lecture are permitted.***
  - If a disallowed device is in use during an exam, then the grade for said exam will be zero percent (0%).
- Bring all materials needed for the course and refrain from bringing anything that is not needed. This allows you to pay attention to the subject matter only and shows me that you are prepared to learn.
- Obtain all missed information and assignments from a fellow classmate.
  - In the spirit of holding to all course objectives in a manner that warrants personal accountability, I will not relay such information unless necessary.
  - This means that ***if there is no documented reason for missing the information, then find your peers, not me.***
- READ THE SYLLABUS!!!
  - If you lose the copy that I give you, then you will have to obtain another copy from Blackboard.
  - There are ***no exceptions*** to this rule!

## **Required & Disallowed Materials for the Course**

The following materials are required of the Student for this course:

- Writing Utensil—This will be required for all work that is to be graded by the Instructor
  - Pencil is ***strongly recommended***
  - Work that is deemed to be illegible will not be graded
  - Label all assignments by Section and Lecture Date
  - Label all problems Exercise Number
- Ruler—This will be required for the Graphing portion of this course
- Multi-subject Notebook (with at least 5 sections)—This is highly recommended for the Student to keep his/her notes; any writing utensil may be used to take notes, and ***the notebook is to be used in this course only***
- Web Camera—This is required for the quizzes and exams, which will be proctored electronically (via Proctorio)
- **Non-graphing calculators**—These are allowed in this course and cannot exceed the quality of a TI-36X Pro or Casio fx-991MS Calculator; no extra calculators are required of the Instructor to provide in the event of the Student not having his/her own
- Syllabus Acknowledgment of Receipt—The filling in, signing, scanning, and submitting of said form is prerequisite for any accommodations stated in the Syllabus to be recognized for the Student; nonetheless, the Student is still expected to uphold any responsibilities that are stated herein
- Cell phone scanning app—These will be used to scan your written work and to save it as a ***single PDF file***; apps include the Phone's Notes app, OneDrive (need SPC email and password), Genius Scan, CamScanner, and Evernote (Scannable [for Apple] or “for Android”)

The following materials and situational items are disallowed in this course:

- **Online math answering programs**—Programs that provide “solutions” to unworked problems, such as Chegg, MathWay, PhotoMath, and Wolfram Alpha are strictly prohibited from use in this course
  - First Offense—50% penalty on assignment
  - Second Offense—Student may be dropped from the course
- Graphing calculators—As most professional examinations have disallowed the use of graphing calculators, the Instructor has chosen to remove such calculators from use in this Course; cell phone calculator usage is also disallowed; repeated violation will result in the ***dismissal of the Student from the course***
- Notes on exams—Use thereof in said circumstance that is not permitted by the Instructor will result in the immediate dismissal of the Student from the course.

If the Student has any concerns pertaining to the information above on this page, then the Student is to contact the instructor by the means stated in this document. The Instructor cannot be reasonably expected to address any such concerns if no communication is had with the Student.

## **Grading Policy\***

90% or above	A	Short outcomes quizzes: 35% (7 @ 5%)
80-89%	B	In-class examinations: 45% (3 @ 15%)
70-79%	C	Final examination: 20%
60-69%	D	
59% or below	F	

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

## **Assignment Breakdown**

**Homework and Notes**—Students will be expected to take notes and to do homework as assigned in the Syllabus. Notes should be used to do the homework, homework can be used for quizzes, and all should be used to study for exams.

**Quizzes**—Students will be assessed eight (8) times over the lecture material; these will be proctored **online through Honorlock** and scanned upon completion; homework exercises will be allowed for use (100-minute duration).

**Midterm Examinations**—Students will be assessed over each unit upon the calendar-determined completion thereof; these will be proctored **in person** and scanned upon completion; **no notes or exercises will be allowed** (150-minute duration).

**Final Exam**—Students will be given a comprehensive Final Exam at the end of the Semester, which will be proctored **in person**, COVID-permitting (see Calendar)

## **Holiday/Travel Statement**

If you the student have pre-existing plans to either travel out of the area during scheduled class times, you must inform me by **NO LATER THAN Monday, February 2, 2026**. Failure to do so will result in the forfeiture of any assignments that will come into question during your dates of absence.

## **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** 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)

## **Proctored Assessment Policy**

- If a Student has a **detached webcam**, which is built separately from the proctoring device (laptop/notebook/desktop), then the Student should remember this motto: "Face and space keep grades in place." This means that if I can see **both** the face and workspace of the Student to verify academic integrity, then all will be well with the grading of each Assessment.
- If the Student has an **integrated (built-in) webcam**, then the Student must do the following before the Assessment is started: 1) show his/her calculator in the writing hand, then set it down, 2) show his/her phone in the writing hand, 3) place said phone **behind** the proctoring device, which must be placed at an angle and on the opposite side of the writing hand, 4) show the non-writing hand, empty, next to the face in the camera, and 5) place the non-writing hand on the desk and in front of the proctoring device.
- Once the Student has started the Assessment, the proctoring device can neither be adjusted nor obstructed; also, the Student cannot reach behind the proctoring device, and the Student must show his/her hands if not writing or scrolling on the proctoring device.
- Each Assessment must be completed in one sitting. This means that once the Assessment is started, it must be finished.
- The proctored session must last the duration of the Student's active completion of the Assessment.
- Written work must be turned in 20 minutes after the completion of each Assessment.
- Any Student who fails to comply with the requirements stated above will be suspected of academic dishonesty and will be penalized **no less than 25%** of the Assessment's stated value. A verified notification sent by Honorlock will automatically warrant the minimum deduction.

## **Course Withdrawal Policy**

If the Student wishes to withdraw from this class for any reason, then the Student will need to send an email to [registrar@southplainscollege.edu](mailto:registrar@southplainscollege.edu) from his/her [SPC\\_email](mailto:SPC_email) [Email Format, no spaces between: (first initial + last name + last 4 digits of Student ID)@southplainscollege.edu] with the following information:

1. Full Name
2. Birthdate
3. Student ID
4. If they are Dropping or Withdrawing
5. Course(s)
6. Reason for dropping the course.

Dual-credit Students are encouraged to ask the Facilitator or Counselor for their Student ID (if not known); also, the Password will be the PIN received in the Welcome Letter (if unchanged).

### **Sexual Misconduct Confidentiality 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, however, 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 reach the Director by phone at 716-2563 or by going to the Health & Wellness Center. You can schedule an appointment with a Counselor by calling 716-2529.

### **Key SPC Dates**

January 19 – MLK, Jr. Holiday  
January 28 – 12<sup>th</sup> Class Day  
March 16-20 – Spring Break  
April 3 – Easter Holiday  
April 30 – Last Day to Withdraw from Classes  
May 4-8 – Finals Week

**Mr. Robert E. Plant, II**  
**SPRING 2026 TENTATIVE LECTURE CALENDAR**  
**MATH 2414**

<b>Week</b>	<b>Monday</b>	<b>Wednesday</b>
1 (1/12 to 1/16)	1.5, 1.6, 1.7	2.1, 2.2
2 (1/19 to 1/23)	<b>MLK, Jr. Holiday</b>	2.3, 2.4
3 (1/26 to 1/30)	2.5, 2.6; <b>Quiz 1</b>	2.7, 2.8
4 (2/2 to 2/6)	2.9; <b>Quiz 2</b>	3.1 (Exam 2 Material)
5 (2/9 to 2/13)	<b>Exam 1</b>	3.2, 3.3
6 (2/16 to 2/20)	3.4; <b>Quiz 3</b>	3.5
7 (2/23 to 2/27)	3.6; L'Hôpital's Rule	3.7; <b>Quiz 4</b>
8 (3/2 to 3/6)	4.1	4.3
9 (3/9 to 3/13)	<b>Exam 2</b>	5.1, 5.2
3/16 to 3/20	<b>SPRING BREAK – NO CLASS</b>	
10 (3/23 to 3/27)	5.3, 5.4	5.5, 5.6
11 (3/30 to 4/3)	6.1; <b>Quiz 5</b>	6.2
12 (4/6 to 4/10)	6.3	6.4; <b>Quiz 6</b>
13 (4/13 to 4/17)	<b>Exam 3</b>	7.1, 7.2
14 (4/20 to 4/24)	7.3	7.4
15 (4/27 to 5/1)	7.5*; <b>Quiz 7</b>	Final Exam Review
16 (5/4 to 5/8)	<b>FINAL EXAMINATION SCHEDULE</b> <b>Monday, 12/8, 5:00 – 7:00 PM</b> <b>ORIGINAL CLASSROOM</b>	

\* Time permitting

**Mr. Robert E. Plant, II**  
**TENTATIVE HOMEWORK CALENDAR**  
**MATH 2414**

<b>Week</b>	<b>Monday</b>	<b>Wednesday</b>
1 (1/12 to 1/16)	Selected Exercises	Chapter 2—#5-110, every 5 <sup>th</sup>
2 (1/19 to 1/23)	<b>MLK, Jr. Holiday</b>	Chapter 2—#115-215, every 5 <sup>th</sup>
3 (1/26 to 1/30)	Chapter 2—#220-290, every 5 <sup>th</sup>	Chapter 2—#295-345, every 5 <sup>th</sup>
4 (2/2 to 2/6)	Chapter 2—#350-365 and #380-430, every 5 <sup>th</sup>	Chapter 3—#5-65 every 5 <sup>th</sup>
5 (2/9 to 2/13)	<b>Exam 1</b>	Chapter 3—#70-180, every 5 <sup>th</sup>
6 (2/16 to 2/20)	Chapter 3—#185-240, every 5 <sup>th</sup>	Chapter 3—#245-295, every 5 <sup>th</sup>
7 (2/23 to 2/27)	Chapter 3—#300-345, every 5 <sup>th</sup>	Chapter 3—#350-405, every 5 <sup>th</sup>
8 (3/2 to 3/6)	Chapter 4—#5-60, every 5 <sup>th</sup>	Chapter 4—#120-165, every 5 <sup>th</sup>
9 (3/9 to 3/13)	<b>Exam 2</b>	Chapter 5—#5-135, every 5 <sup>th</sup>
3/16 to 3/20	<b>SPRING BREAK – NO CLASS</b>	
10 (3/23 to 3/27)	Chapter 5—#140-245, every 5 <sup>th</sup>	Chapter 5—#250-375, every 5 <sup>th</sup>
11 (3/30 to 4/3)	Chapter 6—#5-60, every 5 <sup>th</sup>	Chapter 6—#65-115, every 5 <sup>th</sup>
12 (4/6 to 4/10)	Chapter 6—#120-170, every 5 <sup>th</sup>	Chapter 6—#175-250, every 5 <sup>th</sup>
13 (4/13 to 4/17)	<b>Exam 3</b>	Chapter 7—#5-120, every 5 <sup>th</sup>
14 (4/20 to 4/24)	Chapter 7—#125-175, every 5 <sup>th</sup>	Chapter 7—#190-250, every 5 <sup>th</sup>
15 (4/27 to 5/1)	*Chapter 7—#255-320, every 5 <sup>th</sup>	Final Exam Review
16 (5/4 to 5/8)	<b>FINAL EXAMINATION SCHEDULE</b> <b>Monday, 5/4, 5:00 – 7:00 PM</b> <b>ORIGINAL CLASSROOM</b>	

\* Time permitting

## ACKNOWLEDGMENT OF RECEIPT

As a student in this course, I hereby acknowledge that I have received, read, and clearly understood the syllabus. Furthermore, I hold myself accountable for adhering to the expectations stated therein. I also acknowledge that it is my duty and responsibility to notify the instructor of all personal situations that affect my standing in this course before any occur. I am fully aware that any breach of said expectations and responsibilities will result in any necessary consequences that the instructor has stated to me through the syllabus, and that any differences of opinion will be discussed with the instructor in a manner befitting of adults. Finally, in the event of a later dispute by me, I will refer to the syllabus and will, by my signature, forfeit any pursuit that is not backed by the Syllabus.

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Student's Printed Name

Date of Acknowledgment



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Student's Signature

Instructor's Signature

<b>Monday &amp; Wednesday Schedule</b>		<b>Tuesday &amp; Thursday Schedule</b>	
<u>Class</u>	<u>Time</u>	<u>Class</u>	<u>Time</u>

Scan and submit to "Acknowledgment of Receipt Upload" on **Blackboard**.