Class Syllabus/Policy
MATH 2314/2114 section 1: Calculus II, Fall 2021

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Office Hours: MTW 2:30–3:30pm, TR 11am–noon, or by arrangement.
Department: Mathematics and Statistics
Class meeting time/place: MWF 11–11:50am, Math 214; lab R 2–3:15pm, Math 358

This form contains course information specific to this section; information common to all sections—including course description, the various applicable objectives/learning outcomes, course calendar/outline, and applicable SFA policies can be found at http://www2.sfasu.edu/math/docs/syllabi/MATH2314Syllabus.pdf.

Text and Materials: Calculus: Early Transcendentals by Rogawski and Adams—3rd edition, published by W.H. Freeman, ISBN 9781464114885. In addition, students may also use a non-programmable, non-graphing calculator with no permanent memory. Students are also expected to have access to a method for scanning and posting images of their work to D2L/Brightspace. For this purpose, several applications are available for smartphones; I would suggest Microsoft Office Lens, a free download from either the iOS or Android store which can scan images into PDF format and save to OneDrive or a local copy on your device.

In the event that it is necessary to move to fully remote delivery, students will need to have access to a dependable internet connection and some way to livestream yourself working on major assessments (through a webcam or the Zoom application on your phone).

Course Requirements: Homework will be regularly assigned, but not collected; students are responsible for completing the homework and understanding the material. Students will be expected to come to class prepared—most notably, to have read the section(s) under discussion and attempted any assigned homework. Assessments will likely consist of quizzes and exams, though other types of assessments (take-home assignments, etc.) may be added at the instructor’s discretion. Quizzes will occur approximately once a week and be administered and collected via D2L/Brightspace; in-class exams will be administered about every fourth week. The final exam will be comprehensive and is scheduled for We, 8 Dec, 10:30am–12:30pm.

Face-to-face meetings: Students attending face-to-face meetings are strongly encouraged to wear masks and maintain appropriate physical distancing where possible. Due to the unpredictability of the ongoing pandemic, policies in this sheet are subject to change as conditions warrant.

Grading Policy: Grades will be based on the total points accumulated on assessments. If you miss a regularly scheduled quiz/exam, the next grade of the same type will count double. There will be no extra credit (other than, perhaps, bonus questions on exams).

Attendance Policy: Under the current conditions, an attendance policy is impractical; should conditions arise that interfere with your progress in the course, please inform me as soon as is practical via e-mail.
Course description: Applications and techniques of integration, improper integrals, infinite series and power series.

Credit hours: 3

The following is an excerpt from SFA Policy 5.4:

The federal definition of a credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency that reasonably approximates:

1. Not less than one hour of classroom or direct faculty instruction and a minimum of two hours out-of-class student work each week for approximately fifteen weeks for one semester or trimester hour of credit, or 10 to 12 weeks for one quarter hour of credit, or the equivalent amount of work over a different amount of time, or;

2. At least an equivalent amount of work as outlined in item 1 above for other academic activities as established by the institution including laboratory work, internships, practica, studio work, and other academic work leading to the award of credit hours.

To this end, all students in courses offered by the Department of Mathematics and Statistics that wish to be successful should plan to spend a minimum of two hours outside of class for every credit hour associated with this course. Expected activities to be completed in the time outside of class include reviewing notes from previous class meetings, reading assigned course resources, completing all assigned exercises and projects, and performing periodic assessment preparation.

Course Prerequisites and Corequisites: MTH 233

Course outline:

- Applications of the definite integral
  - Volumes of surfaces of revolution
  - Arc length
  - Surface area
  - One or more from the following applications:
    - Work
    - Fluid pressure and forces
    - Moments and centers of mass
  Approximate time spent 30%

- Techniques of Integration
  - Basic integration techniques
  - Integration by parts
  - Integration by partial fractions
  - Trigonometric substitutions
  - Numerical integration
  - Improper integrals
  Approximate time spent 30%

- Infinite Sequences and Series
  - Sequences
  - Infinite series
    - Geometric series
    - Harmonic series
  Approximate time spent 40%
Program Learning Outcomes (PLO): Students graduating from SFA with a B.S. Degree and a major in mathematics will:

1. Written Communication - SFA Mathematics majors communicate mathematical ideas effectively in written form, integrating mathematical notation correctly and consistently.

2. Verbal Communication - SFA Mathematics majors communicate mathematics effectively to diverse audiences.

3. Mathematical Maturation - SFA Mathematics majors grow from a computational understanding of mathematics to an integrated approach which includes critical thinking proficiency, computational facility, conceptual understanding, and problem-solving persistence.

Student Learning Outcomes (SLO): At the end of MATH 2314, a student who has studied and learned the material should be able to:

1. Extend the definition of the definite integrals to applications, other than area under a curve, including volumes of surfaces of revolution, arc length, and surface area, as well as to examples from other academic fields which might include work, fluid forces, or moments and centers of mass. [PLO: 1, 2, 3]

2. Demonstrate mastery of basic integration techniques. [PLO: 1, 2, 3]

3. Solve more complicated integrals by applying techniques including integration by parts, partial fractions, and trigonometric substitutions. [PLO: 1, 2, 3]

4. Recognize that the Fundamental Theorem of Calculus does not allow for the computation of all definite integrals and be able to apply approximation techniques as an alternative. [PLO: 1, 2, 3]

5. Recognize an improper integral and apply limits to find a solution. [PLO: 1, 2, 3]

6. Define infinite sequences and series and determine convergence and divergence behavior by appropriately applying strategies such as the integral test, comparison tests, and ratio and root tests. [PLO: 1, 2, 3]

7. Recognize alternating series and determine absolute and conditional convergence behavior. [PLO: 1, 2, 3]

8. Determine the radius and interval of convergence of a power series. [PLO: 1, 2, 3]

9. Develop Taylor/Maclaurin Series expansions for basic functions. [PLO: 1, 2, 3]

This course meets educator preparation standards for one or more certification programs; a complete listing of all the educator preparation standards this course meets can be found at: https://sfasu.edu/docs/jacksteach/jacksteach-standards-alignment-chart.xlsx.

Academic Integrity
Academic integrity is a responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism.

The penalty for a student found cheating on any part of an assignment, quiz, or exam in this class will range from a grade of zero on the work to a grade of F in the course, and may result in additional, more severe disciplinary measures. A student who allows another to copy his work and the student copying the work are both guilty of cheating. Do your own work. Do not show your completed work to others. Do not allow others to copy your work.
Definition of Academic Dishonesty (SFA policy 4.1):
Academic dishonesty includes both cheating and plagiarism. Cheating includes, but is not limited to:
- using or attempting to use unauthorized materials on any class assignment or exam;
- falsifying or inventing of any information, including citations, on an assignment;
- helping or attempting to help other student(s) in an act of cheating or plagiarism.

Plagiarism is presenting the words or ideas of another person as if they were one's own. Examples of plagiarism include, but are not limited to:
- submitting an assignment as one’s own work when it is at least partly the work of another person;
- submitting a work that has been purchased or otherwise obtained from the Internet or another source;
- incorporating the words or ideas of an author into one’s paper or presentation without giving the author credit.

Withheld Grades Semester Grades (SFA Policy 5.5)
Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated course for the purpose of computing the grade point average. The circumstances precipitating the request must have occurred after the last day in which a student could withdraw from a course. Students requesting a WH must be passing the course with a minimum projected grade of C.

Students with Disabilities
To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodations. For additional information, go to http://www.sfasu.edu/disabilityservices.

SFASU Mental Health Statement: SFASU values students’ mental health and the role it plays in academic and overall student success. SFA provides a variety of resources to support students mental health and wellness. Many of these resources are free, and all of them are confidential.

On-campus Resources:
SFASU Counseling Services
www.sfasu.edu/counselingservices
3rd Floor Rusk Building
936-468-2401

SFASU Human Services Counseling Clinic
www.sfasu.edu/humanservices/139.asp
Human Services Room 202
936-468-1041

Crisis Resources:
Burke 24-hour crisis line 1(800) 392-8343
Suicide Prevention Lifeline 1(800) 273-TALK (8255)
Crisis Text Line: Text HELLO to 741-741

www.sfasu.edu
Acceptable Student Behavior
Classroom behavior should not interfere with the instructor’s ability to conduct the class or the ability of other students to learn from the instructional program (see the Student Conduct Code, policy 10.4). Unacceptable or disruptive behavior will not be tolerated. Students who disrupt the learning environment may be asked to leave class and may be subject to judicial, academic or other penalties. This prohibition applies to all instructional forums, including electronic, classroom, labs, discussion groups, field trips, etc. The instructor shall have full discretion over what behavior is appropriate/inappropriate in the classroom. Students who do not attend class regularly or who perform poorly on class projects/exams may be referred to the Early Alert Program. This program provides students with recommendations for resources or other assistance that is available to help SFA students succeed.

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