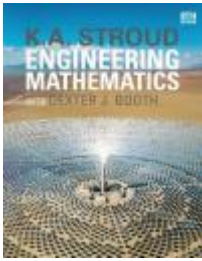
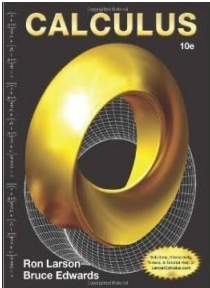


Course Title:	Engineering Applications Lab III for Mathematics				
Course Prefix:	GNEG	Course Number:	2102	Section Number:	P01
Roy G. Perry College of Engineering					
Spring 2024					
Instructor Name:	Aniekan Eno-Ibanga				
Mobile Phone:	832.871.0785				
Email Address:	aeoibanga@pvamu.edu				
Virtual Office Hours:	Available by email 24hrs				
Course Location:	S.R Collins, Room 331				
Class Meeting Days & Times:	Saturday	12:00pm - 1:50pm			
Catalog Description:	(1-0) Credit 1 semester hour. Practical applications of the 2 nd level Calculus for problems in engineering, computer science, and technology. The 2 nd level Calculus concepts will be reinforced through hands-on, physical application in the laboratory.				
Prerequisites:	MATH 1124				
Co-requisites:	MATH 2024				
Required Text:	None				
Recommended Text/Readings:		Engineering Mathematics 8th Edition by KA Stroud and Dexter J. Booth			

	 <p>Calculus 10th Edition</p> <p>by Ron Larson Bruce H. Edwards, Brooks/Cole 2014.</p>
Required Tools and Supplies:	Basic calculator and using Matlab in CoE Labs.
Student Knowledge and Experience Assumptions:	<ul style="list-style-type: none"> • Single integration • Single variable Derivatives • Single variable Limits • Single variable Functions
Access to Learning Resources:	<p>PVAMU Library Telephone: (936) 261-1500 http://www.pvamu.edu/library/ Use the Reference Desk at the library where the staff is eager to guide your research. They can orient you to hard copies and on-line resources.</p> <p>University Bookstore Telephone: (936) 261-1990 https://www.bkstr.com/Home/10001-10734-1?demoKey=d</p> <p>The Writing Center Telephone: (936) 261-3700 http://www.pvamu.edu/lcom/home/the-writing-center/ The Writing Center's goal is to provide a friendly, stress-free environment for students from all over campus to meet with a consultant and talk about writing of all types. They provide a responsive audience and advice from experienced writers in sessions generally lasting thirty to forty-five minutes. Sessions of this length offer time to work individually with students on any aspect of the writing process: from brain storming and drafting, to revising and proofreading. They will explore ways to improve a student's overall writing skills. They do NOT proofread or edit for students, but instead teach proofreading and editing techniques. Their goal is to: make a better writer for the long term.</p> <p>The Tutoring Center John B. Coleman Library - Room 209 Telephone: (936) 261-1561</p>

	<p>http://www.pvamu.edu/universitycollege/ae/cas/ Open to all undergraduate students enrolled for credit in targeted PVAMU courses.</p> <p>Student Academic Success Center Telephone: (936) 261-1040 https://www.pvamu.edu/compass/ Student Academic Success Center identifies academic and social roadblocks that interfere with persistence and timely graduation of PVAMU students. SASC informs campus-wide policies by staying current with retention literature and best practices. Further, SASC develops programs and services that are specifically aimed at continuing the academic success of the first year. They strive to provide PVAMU students with “Navigation to Graduation”</p>
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Course Goals or Overview			
<ol style="list-style-type: none"> 1. This course introduces applications of engineering, engineering technology, and computer science while enhancing the students’ mathematics skills. 2. It helps the students to understand how to solve mathematical problems and advanced problems in today’s technologies. 			
Course Objectives/Accrediting Body - ABET Standards Met: SACS and ABET			
<p>This course contributes towards the following four objectives of the College of Engineering:</p> <ol style="list-style-type: none"> 1. Be able to demonstrate the importance and application of mathematics in engineering, engineering technology, and computer science; 2. Be able to demonstrate knowledge in mathematics concepts that will help the student to be successful in the corresponding math course; 3. Be able to convert word problems into equations and apply knowledge of integral calculus in their solution; 4. Be able to demonstrate knowledge of integral calculus and their applications. 			
	Skills and Knowledge	Alignment with Academic Program	Alignment with Core Curriculum
1	An ability to apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology (TAC/ABET outcome [b])	Sub-Outcome b1 & b2: Students demonstrate knowledge and application of intermediate mathematics ; Knowledge and application of	6

		science and engineering technology principles	
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Course Requirements and Evaluation Methods

This course will utilize the following instruments to determine student grades and proficiency of the learning outcomes for the course.

- Exams** – written tests designed to measure knowledge of presented course material
- Quizzes** – short written tests designed to measure knowledge of course material and/or assigned readings
- Exercises** – written assignments designed to supplement and reinforce course material
- Projects** – assignments designed to measure ability to apply presented course material
- Class Participation** – daily attendance and participation in class discussions

Grading Matrix

	Instrument	Semester weight, %	
	Assignments	70	
	Exams	30	
	Total:	100	

	<p>Grade Determination: A = 90 – 100pts; B = 80 – 89pts; C = 70 – 79pts; D = 60 – 69pts; F = below 60.</p>
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Course Calendar

Week One:
Topics: Course introduction and Syllabus

Week Two:
Topics: Inverse Functions

Week Three:
Topics: Integration Techniques

Week Four:
Topics: Sequence and Series

Week Five:
Topics: Integral Applications

<p>Week Six: Topics: Polar Coordinates and Parametric equations</p>
<p>Week Seven: Topics: Review and Final class day</p>
<p>Course Procedures</p>
<p>Textbook Policy Students must acquire the textbook that is listed as “required” on the course syllabus. The textbook must be acquired by the 10th class day. Students are not allowed to share textbooks with other students who are currently registered in the same class. Failure to acquire (or show proof of purchase) the required textbook by the 10th class day will result in the student being administratively dropped from the course. The University will assess financial obligations for the</p>
<p>course to the student as with any other dropped class according to the fee schedule. In addition, your financial aid may be affected by the subsequent registration action(s). Go to http://www.pvamu.edu/engineering/textbook-policy/ for the Roy G. Perry College of Engineering Textbook Policy</p>
<p>Submission of Assignments All assignments will be submitted on the eCourse web site for this course, unless otherwise specified by the professor. Written assignments will be scanned to PDF form and submitted. The hardware for the Course Project will be presented and demonstrated on the final day of class for credit as part of the course project grade. Note that scanners for Engineering Technology students will be available in SRC 203 and SRC 302. Scanners are also available in the Coleman Library.</p>
<p>Formatting Documents Microsoft Word is the standard word processing tool used at PVAMU. If you’re using other word processors, be sure to use the “save as” tool and save the document in either the Microsoft Word, Rich-Text, or plain text format.</p>
<p>Exam Policy Exams should be taken as scheduled. No makeup examinations will be allowed except under documented emergencies (See Student Handbook). Quizzes and Exams may include material from any classroom activities. Additionally, the student is responsible for assigned readings in the textbook, whether material is explicitly covered in class or not. Note that pop-quizzes may be given at any time during the class period to test the understanding of key concepts. For examination periods, students will place all backpacks, purses, and electronic devices in the front of the classroom and will sit at locations designated by the instructor in the classroom or lab for the duration of the exam. If the student needs to leave the exam for any reason during the examination period, the student must submit the exam to the instructor and will not be allowed to do any more work on the exam.</p>

Missed or Late Work

If a student is absent, all work due on the date of absence must be provided on eCourses per the assigned date for full credit. Late or incomplete work may receive partial credit, at the sole discretion of the instructor.

Housekeeping

All tools and lab supplies must be returned to their appropriate location.

Please keep chairs and tables where they belong.

Return all equipment, tools, etc. back where they belong.

Please do not move, remove, swap, or replace any equipment. If you suspect any equipment to be faulty, please bring it to your instructor's attention.

Classroom Conduct

1. Interpersonal skills are critical to both working with peers and leading others. Students will conduct themselves in a manner that is always respectful to their fellow classmates and the instructor.
2. In practice for the workplace, your preparation and complete attention to the subject matter is crucial, as it would be in any place of employment. Therefore:
 - 2.1. Cell phones **MUST** be turned off during class time, no texting during class time.
 - 2.2. No earbuds allowed during class.
 - 2.3. Arrive to class on time and be prepared to discuss lesson.
 - 2.4. Always bring essential tools: Textbook, pencil, paper, scientific calculator (not cell phone).
3. Business casual attire is encouraged, again preparing for the workplace.
4. You are encouraged to work together on classroom exercises as collaboration and teamwork are important skills to learn. However, **exams, quizzes, laboratory write-ups, and homework assignments are strictly the individual's responsibility and must be done independently.** Recognized copying of work may result in a grade of **zero** for all parties involved.

Attend at least one day by the 10th class day or will be administratively dropped.

Food and Beverages

Other than sealable bottles of water, **food and beverage items are prohibited in the classroom and laboratory.**

Professional Organizations and Journals

IEEE (www.ieee.org); ACM (www.acm.org) ; ASEE (www.asee.org)

References

See eCourse web site for this course.

University Rules and Procedures

Disability statement (See Student Handbook):

Students with disabilities, including learning disabilities, who wish to request accommodations in class, should register with the Services for Students with Disabilities (SSD) early in the semester so that appropriate arrangements may be made. In accordance with federal laws, a student requesting special accommodations must provide documentation of their disability to the SSD coordinator.

Academic misconduct (See Student Handbook):

You are expected to practice academic honesty in every aspect of this course and all other courses. Make sure you are familiar with your Student Handbook, especially the section on academic misconduct. Students who engage in academic misconduct are subject to university disciplinary procedures.

Forms of academic dishonesty:

1. **Cheating:** deception in which a student misrepresents that he/she has mastered information on an academic exercise that he/she has not mastered; giving or receiving aid unauthorized by the instructor on assignments or examinations.
Note that the first occurrence of a student caught cheating on an exam in this course will receive zero points for that exam. If there is a second occurrence of cheating on an exam by a student, the student will receive a failing grade for the course.
2. **Academic misconduct:** tampering with grades or taking part in obtaining or distributing any part of a scheduled test.
3. **Fabrication:** use of invented information or falsified research.
4. **Plagiarism:** unacknowledged quotation and/or paraphrase of someone else's words, ideas, or data as one's own in work submitted for credit. Failure to identify information or essays from the Internet and submitting them as one's own work also constitutes plagiarism.

Nonacademic misconduct (See Student Handbook)

The university respects the rights of instructors to teach and students to learn. Maintenance of these rights requires campus conditions that do not impede their exercise. Campus behavior that interferes with either (1) the instructor's ability to conduct the class, (2) the inability of other students to profit from the instructional program, or (3) campus behavior that interferes with the rights of others will not be tolerated. An individual engaging in such disruptive behavior may be subject to disciplinary action. Such incidents will be adjudicated by the Dean of Students under nonacademic procedures.

Sexual misconduct (See Student Handbook):

Sexual harassment of students and employers at Prairie View A&M University is unacceptable and will not be tolerated. Any member of the university community violating this policy will be subject to disciplinary action.

Attendance Policy:

Prairie View A&M University requires regular class attendance. Attendance and punctuality is expected and is vital to a thorough understanding of the course. The student cannot develop the proficiency required for this course just studying the textbook. Lectures and/or labs may include material not covered in the textbook. **If you cannot attend a particular class session, please discuss the conflict with the instructor in advance (in person, via phone or email).** Attendance will be taken at the beginning of class. Any student who is not present when attendance is taken may be counted as absent for that class.

Excessive absences will result in lowered grades. Excessive absenteeism, whether excused or unexcused, may result in a student's course grade being reduced or in assignment of a grade of "F". Absences are accumulated beginning with the first day of class.

Student Academic Appeals Process

Authority and responsibility for assigning grades to students rests with the faculty. However, in those instances where students believe that miscommunication, errors, or unfairness of any kind may have adversely affected the instructor's assessment of their academic performance, the student has a right to appeal by the procedure listed in the Undergraduate Catalog and by doing so within thirty days of receiving the grade or experiencing any other problematic academic event that prompted the complaint.