RCET1372: Calculus for Electronics
Syllabus

Asst. Professor, Timothy Leishman

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Office Hours: M-F, 3-4 pm
Office: T&T 323

Class Hours: M-F 11:00-11:50 am
Class Room: T&T 333

Course Description

Correlations of algebraic, geometric, and trigonometric topics as well as logarithms and their applications. Algebraic and calculus concepts involving differentiation, integration, and their applications to electronic circuits. Satisfies Objective 3 of the General Education Requirements.

Prerequisites/Corequisites

- *PREREQ*: RCET 1154 Analog & Digital Control Devices Theory or equivalent
- *Supports*, RCET 2251 Systems Analog & Digital Theory

Recommended Materials

- *Technical Calculus*, 5th Edition, Dale Ewen
- *Calculus for Electronics*, 4th Edition, Richmond & Hecht

Course Objectives

Successful students will demonstrate an ability to solve Calculus 1 equivalent and Physics-based mathematical problems. Additionally, successful students will apply calculus methods, processes, and operations, as well as physical applications, particularly those necessary for the understanding of electrical phenomena and circuit analysis.

Course Outline

- ☐ *Derivatives & Derivatives Applied*, Weeks 1-4
- ☐ *Integrals & Integrals Applied*, Weeks 5-6
- ☐ *Logarithms*, Week 7
- ☐ *Circles*, Week 8
- ☐ *Parabolas*, Week 9
- ☐ *Max-Mins, Differentials, Higher Derivatives*, Week 10
- ☐ *Differentials Applied*, Week 11
- ☐ *Limits*, Week 12
- ☐ *Trigonometric Functions*, Weeks 13-14
- ☐ *Review*, Week 15
- ☐ *Final Test*, Week 16

Course Structure

Homework will be assigned and submitted electronically via Moodle. Late homework will not be accepted without 24-hour prior approval from the instructor. Students may be randomly selected to demonstrate their understanding and process of solving course problems during class. Tests will be announced and scheduled in Moodle.

Grading

50%	Tests
30%	Homework/Class Participation
20%	Final
100%	Total

Disability Services

The RCET program is committed to providing an accessible learning environment for students with documented disabilities. If there are aspects of the instruction or design of this course that result in disability-related barriers to your participation, please contact Disability Services to engage in a confidential conversation about the process for requesting accommodations. Students are encouraged to register with Disability Services as soon as they begin this course or in the timeliest manner possible as accommodations are not provided retroactively. More information can be found online at isu.edu/disabilityservices, or by contacting Disabilities Services at:

Disability Services - Main Office
Rendezvous Complex, Room 125
921 South 8th Avenue
Pocatello Id. 83209

Phone: 208-282-3599
Fax: 208-282-4617
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