

RCET 253 – Systems Analog and Digital Laboratory
5 Cr Monday through Friday 8 am – 11:50 pm T&T Room 336

Instructor Tim Leishman

E-Mail leistimo@isu.edu

Office T&T Room 323

Phone 208-282-2886

Office Hours M through F, 3:00 - 4:00 pm

Books: No required text for purchase, Personal laboratory notebooks from previous RCET lab courses are strongly recommended for use as reference material. Equipment manuals will be provided as needed.

Other supplies:

Laptop, ISU computer account, bound grid paper notebook with numbered pages, tools as required in first semester.

Attendance

Department attendance policy will be enforced, refer to student handbook for more information.

Lab Rules

Refer to the 'RCET Laboratory Rules and Safety Manual' for more information

Lab Grading

Late work will be subject to 10% per day penalty.

Course Description: RCET Program Required Course

Emphasizes understanding of analog and digital circuitry by allowing students to design, construct, test, and troubleshoot using proper test equipment. Experiments involve subjects covered in RCET 0251 and RCET 0271. PREREQ: RCET 0156B. COREQ: RCET 0251.

Goals

At the completion of this course, the students will be able to demonstrate:

- an ability to apply the knowledge, techniques, skills, and modern tools of the discipline to narrowly defined engineering technology activities
- an ability to apply knowledge of mathematics, science, engineering, and technology to engineering technology problems that require limited application of principles but extensive practical knowledge
- an ability to conduct standard tests and measurements, and to conduct, analyze, and interpret experiments

- an ability to apply written, oral, and graphical communication and an ability to identify and use appropriate technical literature
- a commitment to quality, timeliness, and continuous improvement
- an ability to analyze and troubleshoot electronic circuitry from schematics, technical circuit descriptions, block diagrams, and test point waveforms.
- Ability to work in teams as a member or leader to cooperatively solve problems.
- Ability to record and explain data, and convey ideas through written and electronic media.
- Effectively and safely connect and operate electronic test equipment utilizing the manufactures operation manual and technical application notes.
- Ability to work within given safety guidelines, project specifications, and within a given budget.

Grading

Labs	60%
PS Project	30%
Professionalism	10%
Total	<u>100%</u>

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 83209-8121
 Stop 8121
 Phone: 208-282-3599
 Fax: 208-282-4617
 VP for ASL: 208-417-0620
 Email: disabilityservices@health.isu.edu