

EEO353 – Electronics Laboratory II



Syllabus - Spring 2024

Description: EEO353: Electronics Laboratory II, Credits: 3

The course builds upon EEO352 and covers additional devices and concepts such as LED, photo-transistor, negative feedback, differential amplifiers, oscillators, active filters, and sigma-delta modulators.

Textbook: Laboratory documents posted online

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Goals: Learn how to operate electronic instrumentation.
Learn devices and circuits by performing experiments.
Build up ability and confidence in designing circuits, performing diagnosis, analyzing data, writing reports.

Prerequisites: EEO 352

Assignments: 1. Familiarization with equipment: no due report
2. Negative Feedback and Push Pull Amplifier: assignment (100pts)
3. Differential Amplifier: assignment (100pts)
4. Multi-Stage Amplifier: advanced assignment (200pts)
5. Oscillators: assignment (100pts)
6. Infrared Transmitter and Receiver: assignment (100pts)
7. Radio Frequency Communications: advanced assignment (200pt)
8. Micro-Controller Embedded System: advanced assignment (200pts)
9. Active Filter and Sigma-Delta Modulator: assignment (100pts)
10. Electrocardiogram: assignment (100pts)
Total: 1200 pts = 100%.

Requirement: Full report on each of the Assignments, delivered as per deadlines. All work must be entirely of the student with no collaboration.

Material: Students are responsible for procuring, on time for the Assignments, the required instruments and components as listed in the “Materials and Schedule” course document.

Grades: 90-100% A- to A, 80-89% B- to B+, 70-79% C- to C+, 60-69% D- to D+, <60% F.

For passing grade please read:

<https://www.stonybrook.edu/sb/bulletin/current/academicprograms/eeo/degreesandrequirements.php>

For Incomplete, please read:

https://www.stonybrook.edu/sb/bulletin/current/policiesandregulations/records_registration/grading_system.php

Location: Brightspace <https://it.stonybrook.edu/services/brightspace>

Office Hours: Remote, on demand

BSEE Online Program Proctoring Policy:

To ensure student authentication and academic integrity, we require students to have exams (mid- term/final) proctored at testing centers, public facilities, higher education institutions, or commercial online proctoring services. The following are examples of proctoring facilities: National College Testing Association, the SUNY Exam Proctoring Services, public libraries, community colleges and other higher education institutions.

The proctor at these facilities must be faculty or professional staff members. Proctoring by teaching assistants or graduate students is generally not acceptable, unless specifically authorized by the instructor. Proctors who have a personal relationship with the student (such as friends, relatives, employers, colleagues, fellow students, etc.) are not appropriate. In all cases, students should obtain approval of the faculty once they have identified a proctoring facility.

Disability Support Services (DSS):

If you have a physical, psychological, medical or learning disability that may impact your course work, please contact Disability Support Services, Educational Communications Center, Building, room128, (631) 632-6748. They will determine with you what accommodations, if any, are necessary and appropriate. All information and documentation is confidential.

Academic Integrity:

Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty are required to report any suspected instances of academic dishonesty to the Academic Judiciary. Faculty in the Health Sciences Center (School of Health Technology & Management, Nursing, Social Welfare, Dental Medicine) and School of Medicine are required to follow their school-specific procedures. For more comprehensive information on academic integrity, including categories of academic dishonesty, please refer to the academic judiciary website at <http://www.stonybrook.edu/uaa/academicjudiciary/>.

Critical Incident Management:

Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of Judicial Affairs any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn. Faculty in the HSC Schools and the School of Medicine are required to follow their school-specific procedures.

Details of instructional and student responsibilities can be found at:

http://sb.cc.stonybrook.edu/bulletin/current/policiesandregulations/policies_expectations/min_instructional_student_resp.php