

ECE 271 - Introduction to Digital Circuits and Systems

Winter 2021

- Instructor:** Prof. Scott Hauck (hauck@ee.washington.edu) EEB-307Q
Office hours: By appointment (send email w/availability or stop by)
- Text:** (Recommended, not required) Harris and Harris, *Digital Design and Computer Architecture (ARM Edition)*, 2016. Lecture notes will be provided on the website.
- Topics Covered:** Introductory course in digital logic, Boolean algebra, combinational and sequential circuits, combinational and sequential logic design, and programmable logic devices.
- Prerequisites:** CSE 142.
- Homework:** Homework will be due at the end of class on the date specified. **Late work will be penalized 10% for 24 hours late, 30% for 48 hours late, 60% for 72 hours late, and not accepted beyond that.**
- Laboratory:** Each student will complete eight laboratory assignments using the DE-1 SoC laboratory kit. This will include the testing of basic TTL devices, use of programmable devices for the creation of combinational and sequential logic, and the creation of a moderately complex final project. Projects can be done at home or in the department computing or hardware labs.
- Exams:** There will be one midterm and a final exam.
- Grades:** The grade will be determined by the following approximate weights: homework (25%), labs (40%), midterm exam (15%), and final exam (20%).
- Website:** <http://www.ee.washington.edu/class/271/hauck2/>

NOTE: During remote quarters (due to COVID), the midterm and final exam will be administered over Zoom. These may be recorded for internal use, but will not be shared publicly.

Disability and Access:

Your experience in this class is important to me. It is the policy and practice of the University of Washington to create inclusive and accessible learning environments consistent with federal and state law. If you have arranged accommodations through Disability Resources for Students (DRS), please communicate those accommodations to me at your earliest convenience so we can discuss your needs and appropriate arrangements in this course.

If you have not yet established services through DRS, but have a temporary health condition or permanent disability that requires accommodations (conditions include but not limited to; mental health, attention-related, learning, vision, hearing, physical or health impacts), contact DRS directly to set up an Access Plan. DRS offers resources and coordinates reasonable accommodations for students with disabilities and/or temporary health conditions. Reasonable accommodations are established through an interactive process between you, your instructor(s) and DRS. It is the policy and practice of the University of Washington to create inclusive and accessible learning environments consistent with federal and state law. Contact DRS at disability.uw.edu.

Diversity and Inclusion:

I consider this classroom to be a place where you will be treated with respect, and I welcome individuals of all ages, backgrounds, beliefs, ethnicities, genders, gender identities, gender expressions, national origins, religious affiliations, sexual orientations, ability – and other visible and nonvisible differences. All members of this class are expected to contribute to a respectful, welcoming and inclusive environment for every other member of the class. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the quarter so that I may make appropriate changes to my records.

Religious accommodations:

Washington state law requires that UW develop a policy for accommodation of student absences or significant hardship due to reasons of faith or conscience, or for organized religious activities. The UW's policy, including more information about how to request an accommodation, is available at [Religious Accommodations Policy \(https://registrar.washington.edu/staffandfaculty/religious-accommodations-policy/\)](https://registrar.washington.edu/staffandfaculty/religious-accommodations-policy/). Accommodations must be requested within the first two weeks of this course using the [Religious Accommodations Request form \(https://registrar.washington.edu/students/religious-accommodations-request/\)](https://registrar.washington.edu/students/religious-accommodations-request/)

Safety:

Call SafeCampus at 206-685-7233 anytime – no matter where you work or study – to anonymously discuss safety and well-being concerns for yourself or others. SafeCampus's team of caring professionals will provide individualized support, while discussing short- and long-term solutions and connecting you with additional resources when requested.

Academic Misconduct:

The University takes academic integrity very seriously. Behaving with integrity is part of our responsibility to our shared learning community. If you're uncertain about if something is academic misconduct, ask me. Acts of academic misconduct may include but are not limited to:

- Cheating (working collaboratively on quizzes/exams and discussion submissions, sharing answers and previewing quizzes/exams)
- Plagiarism (representing the work of others as your own without giving appropriate credit to the original author(s))
- Unauthorized collaboration (working with each other on assignments)

We will discuss the allowed models of collaboration in this class during the first week of the course.

Engineering is a profession demanding a high level of personal honesty, integrity and responsibility. Therefore, it is essential that engineering students, in fulfillment of their academic requirements and in preparation to enter the engineering profession, shall adhere to the University of Washington's Student Code of Conduct (<https://www.washington.edu/cssc/for-students/student-code-of-conduct/>). Concerns about behaviors prohibited by the Student Conduct Code will be referred for investigation and adjudication by the College of Engineering Dean's Office and the University's Office of Community Standards and Student conduct. See CoE website (<https://www.engr.washington.edu/mycoe/am/amprocess>) for more detailed explanation of the academic misconduct adjudication process.

Inclement Weather:

Please check if the campus may be closed due to weather. Information on suspension of operations will be made public and available through the media. You can learn of campus operations status by signing up with an alert system that will contact you via email or text message if classes are canceled or delayed (<https://www.washington.edu/safety/alert/>). Alternatively, campus status during inclement weather is available via local radio and television news.