Digital Logic

CS211 Chapter 0

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Jun. 21, 2021

南方科技大学
SOUTHERN UNIVERSITY OF SCIENCE AND TECHNOLOGY

Instructor

- Dr. James Yu
  - Assistant professor at Dept. Computer Science and Engineering, SUSTech
  - Office: Room 504, Block 10, Innovation Park / 创园
  - Office hour: 10:00am-11:00am every Monday this semester
    - This morning
    - Or by email appointment if needed
  - Email: `yujq3@sustech.edu.cn`

Honor policy

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- As a student in the course you are agreeing to the following principles:
  - When there is doubt regarding the honorability of an action, you will ask before doing it.
  - When possible to do so with honor, you will help your fellow classmates learn and improve.
  - You will get help from classmates and course staff before succumbing to frustration.
- Unless otherwise noted, exams and individual assignments will be pledged that you have neither given or received unauthorized help.
- If you have questions on what is allowable, ask!

Course website

- There is a Sakai site for this course
  - `https://sakai.sustech.edu.cn/portal/directtool/39d1a621-2c43-46f7-90af-fcf9d1360b64/`
  - Or search “CS211-M21”.
- The syllabus is there (with most of the info in this slide set)
  - And all the lecture notes.
- I will try to post slide sets and lab sheets on the website beforehand.
  - Assignment questions and (maybe) answers are also there.
  - Try to meet the deadlines and late submission policy may apply.

Textbooks

- There is no required text. Hooray!
- Reference books:
  - *Digital Design: With an Introduction to the Verilog HDL, VHDL, and SystemVerilog* by M. Morris Mano et al.
  - *Digital Principles and Logic Design* by A. Saha and N. Manna.
  - *Digital Logic Design* by B. Holdsworth and C. Woods.

Course objective

- This is a foundational course in digital design that aims to provide an understanding of the fundamental concepts, circuits in digital design, and expose students to the mainstream approaches and technologies used in digital design.
- It is the basis for digital computing and provides a fundamental understanding on how circuits and hardware communicate within a computer.
  - Core logical operations and elementary methods to design logic circuits to achieve a desired function.
  - Fundamentals of combinational and sequential circuits.
  - Hands-on experimentation knowledge of the digital design process using HDLs.

Grading criteria

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- **10%** Lecture attendance
  - Lecture attendance will be recorded by ad-hoc quizzes.
- **20%** Lab and project
- **20%** Assignments
  - 5% for each assignment. *50% penalty applies for late submission within 24 hours.*
- **15%** Mid-term examination
- **35%** Final examination

Notices

- The lab session will start from this week. Attendance is required.
- Sakai site:
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