

Unit 0

EE1001 Foundations of Digital Techniques

Course Plan

Course Organization

- Part I: Logic and Proof
 - Lecture (5 weeks)
- Part II: Digital Circuits
 - Lecture (5 weeks)
- Lab on Digital Circuits (last 3 weeks)

Instructors

□ Part I: Dr. Albert Sung

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□ Part II: Dr. Ricky Lau

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Course Intended Learning Outcomes (CILO)

Part I

1. Apply symbolic logic to determine the validity of arguments.
2. Describe the basic concepts of set theory.
3. Apply methods of proof to determine and demonstrate the truth or falsity of mathematical statements.

Part II

4. Manipulate numbers in binary form for digital system.
5. Use Boolean function to represent logic operation of digital circuit.
6. Design simple logic circuit with minimization techniques

Assessment

- Examination (60%)
 - For a student to pass the course, **at least 30%** of the maximum mark for the examination must be obtained.
- Coursework
 - Test/Quiz (20%)
 - Assignment (12%)
 - Lab (8%)
 - For a student to pass the course,
 - **at least 30%** of the maximum mark for the course work must be obtained.
 - **at least 75%** lab attendance must be obtained. (That means, you have to attend all 3 labs. But if you can complete your work earlier, then you don't need to attend the remaining session.)

Assessment Details

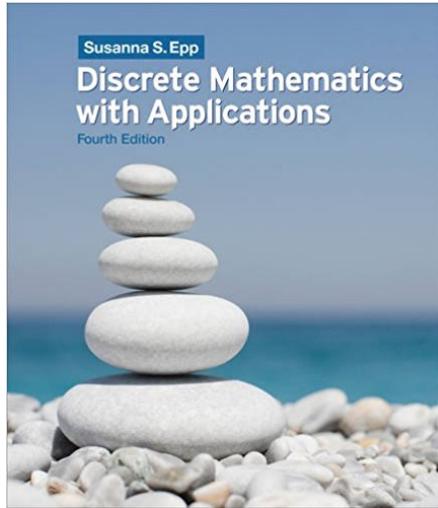
Part I

- (Weekly) Assignment
 - four take-home assignments (traditional format)
 - four online assignments in Canvas (Due: **next Friday 1 p.m.**)
 - Late submission is **not** allowed.
- Quiz
 - Week 5: Oct 5 (Friday)
- Participation in Class (Bonus marks for Coursework)
 - Answering questions (especially in tutorials)

Part II

- To be announced by Dr. Ricky Lau.

Major Reference for Part I



- Susanna S. Epp, *Discrete Mathematics with Applications*, 4th ed., Brooks Cole, 2010.