

CS1231 Discrete Structures

AY2019/20 Semester 1



School of
Computing

0. Lectures

Lectures:

Wednesdays 12 pm to 2 pm

Fridays 12 pm to 1 pm

MUST USE NUSNET LOGIN

Link: [https://nus-
sg.zoom.us/j/92248889814?pwd
=RHNER0JwRVdULzhEZ3FBRmxjc
mlydz09](https://nus- sg.zoom.us/j/92248889814?pwd=RHNER0JwRVdULzhEZ3FBRmxjc mlydz09)

Meeting ID: 922 4888 9814

Password: 926734

1. Lecturers (1/2)



Colin Tan

Department of Computer
Science, NUS School of
Computing.

Email:

colintan@nus.edu.sg



1. Lecturers (2/2)



Dr. Li Wei

Department of Mathematics, Faculty of
Science

Email: matliw@nus.edu.sg

1. Consultation with Lecturers

Questions? Come talk to us!

The lecturers conduct consultation sessions over Zoom on their respective weeks, starting Week 2 (week of 17 August).

When: Thursdays 8 am to 10 am, recorded.

Link: [https://nus-
sg.zoom.us/j/97452718244?pwd=b3BHTWR5
d2pkTG1SMVYyT2lKWmc5QT09](https://nus- sg.zoom.us/j/97452718244?pwd=b3BHTWR5d2pkTG1SMVYyT2lKWmc5QT09)

1. Asking Questions During Lectures

Questions? Come talk to us!

If you have questions during the lectures, you can use the Telegram chat to ask.

For math formulae you can write on paper, take a picture and post on Telegram with your question.

Do not post on Zoom chat as I will not see it.

Telegram Link: https://bit.ly/cs1231_official

1. CS1231 Module Reps

Friend Makers!

Many thanks to the following classmates who have stepped up:

Name	Faculty
Ching Jia Rong	Science
Fan Jue	Science
Mohammad Shoib	SoC / Engineering
Hoang Trong Tan	SoC / Engineering

They will shortly create a group for you to interact with each other.

- This is a safe space with no staff, so that you can speak freely.

2. Description

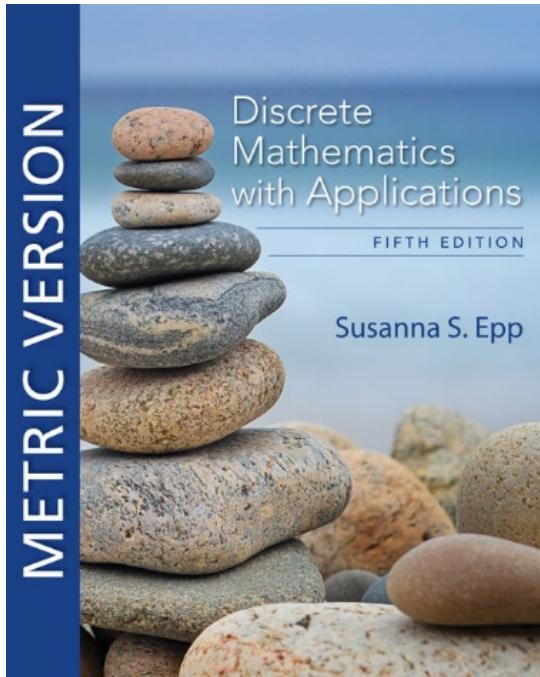
CS1231S and CS1231 have the same contents.

The modules introduce mathematical tools required in the study of computer science.

Topics include:

1. Logic and proof techniques
2. Number theory
3. Sequences and Mathematical Induction
4. Set theory, Functions and Relations
5. Counting and Probability
6. Graphs and Trees

3. Textbook and Reference Book



Discrete Mathematics

An Introduction to Mathematical Reasoning

5th Edition

Author: Susanna S. Epp

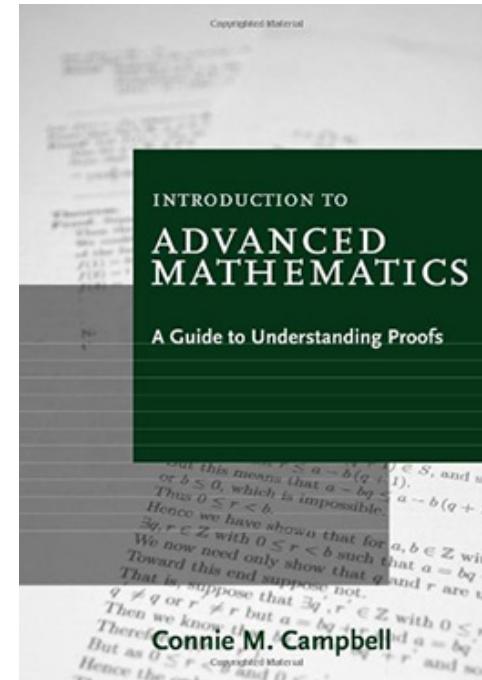
Publisher: Cengage Asia

ISBN-13: 9780357114087

ISBN-10: 0357114086

[Online resource](#)

It's ok if you get
the 4th edition.



Introduction to Advanced Mathematics:

A Guide to Understanding Proofs

Author: Connie M. Campbell

Publisher: Cengage Asia

ISBN-13: 9780547165387

ISBN-10: 0547165382

4. Lecture Plan (May subject to change)

Week	Date	Lecture Topics	CA
1	11/8 - 14/8	Introduction Lecture 1: Speaking Mathematically Lecture 2: The Logic of Compound Statements	
2	17/8 - 21/8	Lecture 2: The Logic of Compound Statements (cont'd) Lecture 3: The Logic of Quantified Statements	
3	24/8 - 28/8	Lecture 3: The Logic of Quantified Statements (cont'd) Lecture 4: Methods of Proofs	Tutorial #1
4	31/8 - 4/9	Sets	Tutorial #2
5	7/9 - 11/9	Functions, Bijections and Cardinality	Tutorial #3
6	14/9 - 18/9	Mathematical Induction and Recursion	Tutorial #4 Assignment #1 (on Tut1-3) due: 17 Sep, 4pm
-	19/9 - 27/9	(Recess)	
7	28/9 - 2/10	Divisibility, Primes and Base Expansion	Tutorial #5
7 or 8	Mid-term test (on tutorials 1-5) (See Important Events below.)		
8	5/10 - 9/10	Euclidean Algorithm, Fundamental Theorem of Arithmetic and Modular Arithmetic	Tutorial #6
9	12/10 - 16/10	Relations, Equivalence Relations and Partitions, and Partial Orders	Tutorial #7
10	19/10 - 23/10	Counting and Probability I Counting and Probability II	Tutorial #8
11	26/10 - 30/10	Counting and Probability II (cont'd) Graphs	Tutorial #9 Assignment #2 (on Tut6-8) due: 5 Oct, 4pm
12	2/11 - 6/11	Graphs (cont'd) Trees	Tutorial #10
13	9/11 - 13/11	Filler (Countability - non-examinable)	Tutorial #11

5. Assessments and Important Dates

CA component	Date	Weightage
Tutorial attendance	See LumiNUS	5%
Assignments (2)	Weeks of 14/9, 26/10	20%
Mid-term test *	3 October 2020 7 pm to 9 pm	25%
Final exam *	25 November, Wednesday 9-11 am	50%

* Open book.

6. Online Resources (1/2)

LumiNUS: <https://luminus.nus.edu.sg>

- Webcast
- Announcements
- Forum
- Files
- etc.

The screenshot shows the LumiNUS interface for the module CS1231S Discrete Structures. The top navigation bar includes links for MY MODULES, MODULE SEARCH, CONTENT BANKS, RESEARCH RECRUITMENT, and STUDENT FEEDBACK. The left sidebar contains sections for GENERAL (Module Overview, Module Settings, Module Details, Class & Groups, Attendance, Task Report) and TOOLS (Announcements, Chat, Conferencing, Consultation, Files, Forum, Gradebook). The main content area displays the module overview, showing details like the module code [1910] 2019/2020 Semester 1, owner information, and a summary of the module's purpose and duration. It also includes a section for examinations and a note about available slots.

CS1231S
Discrete Structures
[1910] 2019/2020 Semester 1
Owner

GENERAL

- Module Overview
- Module Settings
- Module Details
- Class & Groups
- Attendance
- Task Report

TOOLS

- Announcements
- Chat
- Conferencing
- Consultation
- Files
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- Gradebook

CS1231S
Discrete Structures
[1910] 2019/2020 Semester 1
School of Computing (Dept of Computer Science)
11 Jul 2019 12:38 pm - 21 Dec 2019 11:59 pm

Module Overview ***

+ Add Module Overview

There are 338 slots in total
See all slots

Examinations
Sat, 30 Nov 2019, 13:00 - 15:00 (120 Minutes)

6. Online Resources (2/2)

CS1231S module website (Shared with CS1231)

<https://www.comp.nus.edu.sg/~cs1231s>

The screenshot shows the homepage of the CS1231S module website. At the top left is the NUS School of Computing logo. To its right, the text "CS1231S Discrete Structures" is displayed. Below this, there are links for "Module Info...", "Resources...", "CA...", and "Misc...". Under "Module Info...", there are links for "Description", "Staff", "Schedules", "CA Policies", and "Resources..." (Books, Online Lectures). Under "Resources...", there are links for "Books", "Online", and "Lectures". Under "CA...", there are links for "Tutorials", "Assignments", "Term Tests", and "Exams". A note at the bottom states "Hits since 29-May-14: 51924. Accesses today: 5. Statistics." On the right side, a red box contains the text "As backup in case LumiNUS is down."

National University of Singapore
School of Computing

CS1231S *Discrete Structures*

Monday, 15 July 2019.

Designed by Aaron Tan | Terms of Use © NUS 2016-2019

Module Info...

[Description](#)
[Staff](#)
[Schedules](#)
[CA Policies](#)

Resources...

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[Lectures](#)

CA...

[Tutorials](#)
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[Exams](#)

Misc...

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