Terence Sim 17 Aug 2017

I can do it!

CS1231 Discrete Structures

## Message of the Day

I can do it!
I can do it!
I can do it!



Don't feel like this

But like this



### Think Positive

Whether you THINK you CAN

or

You THINK you CAN'T,

you're right!

## Teaching Staff

3 Lecturers:



Terence Sim

tsim@comp.nus.edu.sg



Aaron Tan

tantc@comp.nus.edu.sg



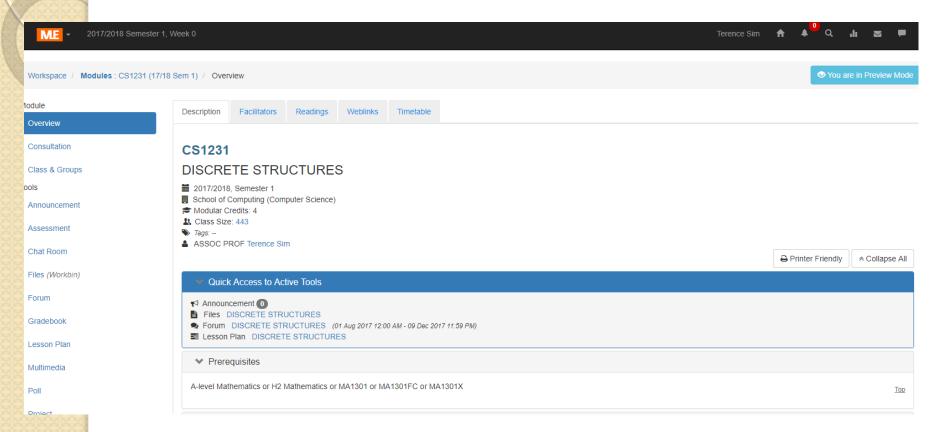
Sufatrio

sufatrio@comp.nus.edu.sg

Tutors: TBA

## Read IVLE daily; ignorance not an excuse

https://ivle.nus.edu.sg



Use the Forum to ask questions, share ideas, and discussion relevant topics. Be courteous, even when disagreeing.

Do not post anything that may violate the owner's copyright.

### Also read Module web site



#### Module Info...

Description Staff Schedules CA Policies

#### Resources...

Books Online Lectures Errata

#### CA...

Tutorials
Assignments
Term Tests
Exams
CA Marks

#### Misc...

Info Freshmen Articles

#### AY2017/8 Semester 1 Module Information - Description

#### Title:

CS1231 Discrete Structures

#### **Description:**

This module introduces mathematical tools required in the study of computer science. Topics include: (1) Logic and proof techniques: propositions, conditionals, quantifications; (2) Relations and Functions: Equivalence relations and partitions, partially ordered sets, well-ordering principle, function equality, Boolean/identity/inverse functions, Bijection; (3) Mathematical formulationo of data models (linear model, trees, graphs); (4) Counting and Combinatoric: Pigeonhole Principle, Inclusion-Exclusion Principle, Number of relations on a set, number of injections from one finit set to another, Diagonalisation proof. An infinite countable set has an uncountable power set; Algorithmic proof: An infinite set has a countable, subsets, subsets of countable sets are countable.

#### Prerequisite:

A-level Mathematics or H2 Mathematics or MA1301 or MA1301FC or MA1301X

#### Preclusions:

MA1100

#### Modular Credits:

4 MCs

#### Workload:

3-1-0-3-3

Workload components: A-B-C-D-E

A: number of lecture hours per week

B: number of tutorial hours per week

C: number of lab hours per week

D: number of hours for projects, assignments, field work, etc. per week

E: number of hours for preparatory work by a student per week

#### Schedules:

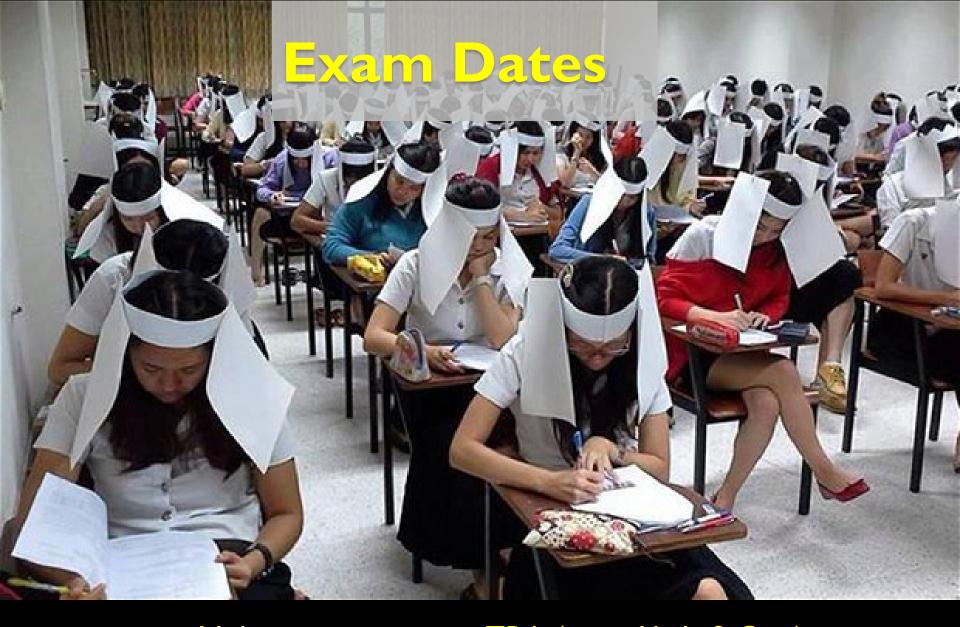
## Lectures & Tutorials

- Attendance will be taken during tutorials, but not lectures.
  - Stay with your tutorial group for the whole semester; do not switch group
- Pay attention and participate in class
- Do not distract others
  - No Pokemon or games
  - No watching videos
  - No social networking or messaging
- IVLE Web Lectures will be available a day or two after each lecture.

### Assessment

Final Exam	50%
Midterm Exam	25%
Two Assignments (10% each)	20%
Tutorial Attendance	5%

Final and Midterm Exams are OPEN BOOK (more details later). Basically, this means you can bring in *hardcopy* notes, textbook. Softcopy NOT allowed.



Midterm exam: TBA (most likely 2 Oct.)

Final exam: Mon, 27 Nov., evening





Discrete Mathematics with Applications, International Edition 4th Edition

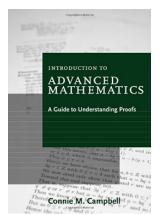
Susanna S. Epp

ISBN-13: 9780495826163 | ISBN-10: 0495826162

© 2011 | Published | 984 Pages

List Price: S\$326.25

Special Adoption Price: S\$77.60 (Inclusive of 7% GST)



Introduction to Advanced Mathematics: A Guide to Understanding Proofs 1st Edition

Connie M. Campbell

ISBN-13: 9780547165387 | ISBN-10: 0547165382

© 2012 | Published | 144 Pages

List Price: S\$59.75

Special Adoption Price: \$\$25.90 (Inclusive of 7% GST)

Special bundle price: both books for \$\$80.40 (incl. 7% GST)

Note: both are also available at Central Library (RBR)

## Avoid Plagiarism at all costs!

Group study is fine, but write up your own solutions yourself. Do not copy.

### Also see:

http://emodule.nus.edu.sg/ac/

https://www.comp.nus.edu.sg/undergraduates/plagiarism.html

## **Action Items**

Register for a tutorial slot via CORS asap

# This module is tough, but ...

