Lecture 1a
Overview

Computer and Logic Essentials

Semester 1 2020

Preliminaries How unit works Assessment Goals

Today

1. Preliminaries
2. How unit works
3. Assessment
4. Goals

Stepping through how the unit works

Answering your top questions

Who are you?

- My name is Nicole
- I am a lecturer
- See Canvas for when I am around for consultation
- My email is nronald@swin.edu.au and my office is EN506c

Who are these people next to me?

- There are around 400 students in this unit
- This unit also runs at Sarawak in both semesters, and as of 2020 at UniLink, in Subang, and in Vietnam
- First semester?
- Straight from year 12?
- Methods? Specialist?
- IT-related VCE unit? Help with IT problems? Have been self-learning?

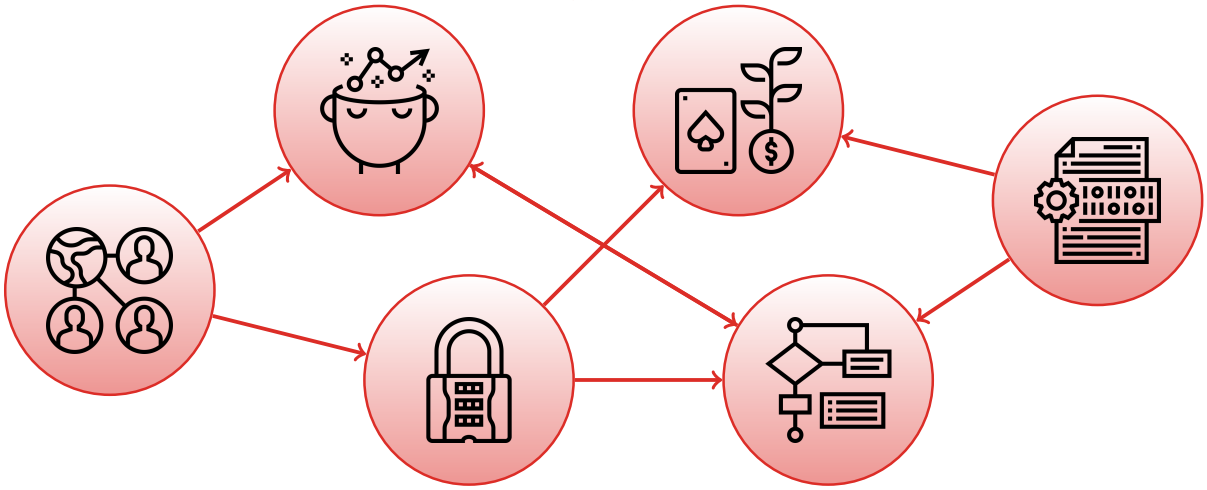
Why am I doing this unit?

- Can you imagine life without any computing machine?
- Why do we rely on these computing machines so much? Perfect execution of instructions!
- Computer and Logic Essentials examines the logic behind computer operations

Why am I doing this unit?

- Computing is a logical process and logic is a recurring theme in the syllabus
- The challenge is in the logic, not the mathematics!
- Where to next: return to this in week 12

What is this unit about?



How do lectures work?

- They are in ATC621 on Wednesdays from 12:30pm-2:30pm
- Generally have a 5 minute buffer at either end, plus a short break somewhere in the middle
- Slides are usually released beforehand
- Audio/slides usually recorded but do not rely on Echo
- Come prepared with note-taking implements (within reason)
- Do not disturb others and minimise distractions

How do tutorials work?

- Set of problems released the week before, relating to the lecture
- Read the sheet before your tutorial
- Come to the tutorial prepared to participate (e.g., bring pens, paper, devices) and have the tutorial sheet handy
- If you are unwell, or not in the mood, or something else comes up, then do not panic
- Suggested solutions will be released after the last class for the week, so you have time to work on problems over the weekend.

Who is my tutor going to be?

- Tanjila Kanij
- Felip Marti
- Fatemeh Ansarizadeh
- Deepa Prabhu
- Syeda Zehra
- Mahbuba Afrin
- Ubaid Mehmood
- Kaberi Naznin
- Jai Cornes
- Harindu Korala

Anything more to say about tutorials?

- General rule 1: I will give tutors a list of students so they can mark a roll if they like, but this is not used for assessment.
- General rule 2: some tutorials are full; you can swap if you like, however tutors have been instructed to give priority to those enrolled in that particular class.
- General rule 3: while email addresses have been provided, please do not use them unnecessarily.

What will be on the assignments?

- Some “short answer” questions, e.g., show working
- See unit outline/Canvas for details of weighting and topics
- Assignment 1 covers data representation
- Assignment 2 covers sets, logic, circuits and relations
- Assignment 3 covers algorithms, graphs and counting
- All are to be submitted electronically via Canvas (not ESP, not Doubtfire)

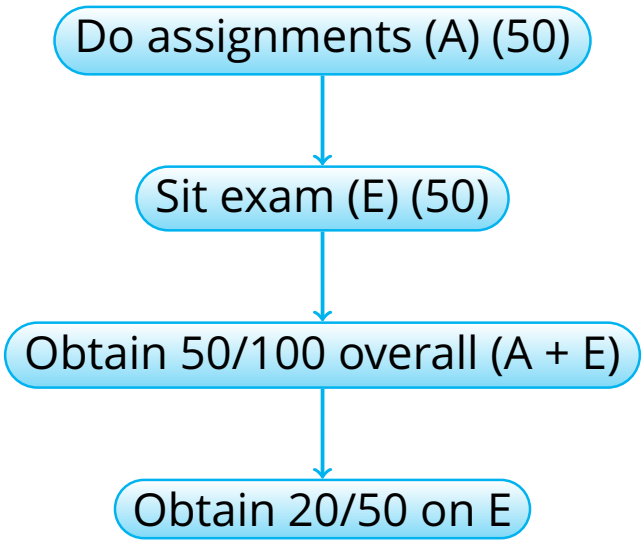
What is Canvas?

`http://swinburne.instructure.com`

What will be on the exam?

- Some “answer with no working” questions
- Some “short answer” questions, e.g., complete a table, or show working for a problem
- If tutorial exercises and assignments have been completed, there should be no surprises
- No calculators: some questions will require ability to do basic addition and division, other questions will require writing a mathematical/logical statement
- A formula sheet will be provided; you cannot bring your own.

How do I potentially pass?



Just to be clear

- Do the assignments (various weights, but add up to 50% overall)
- Sit the exam (worth 50%)
- NOTE: you must get 40% on the exam (that is, 20/50) to pass the unit (hurdle requirement) as well as an overall mark above 50/100
- If you get 45/50 on the assignments and think “I only need 5/50 on the exam to pass” then you might have to think again

How do I do well?

- Attend lectures: it has been noted in other first year units that attendance has a positive effect on final results
- Attempt tutorial questions and participate in tutorials
- Spend time outside of class working on problems, participating in discussions, reading, coding etc. (basic expectation is 10 hours/unit/week)
- Use resources: any book on discrete maths, intro to computing etc. should be useful, but try Johnsonbaugh first
- Apply ideas: no set programming language, extension tasks allow you to choose

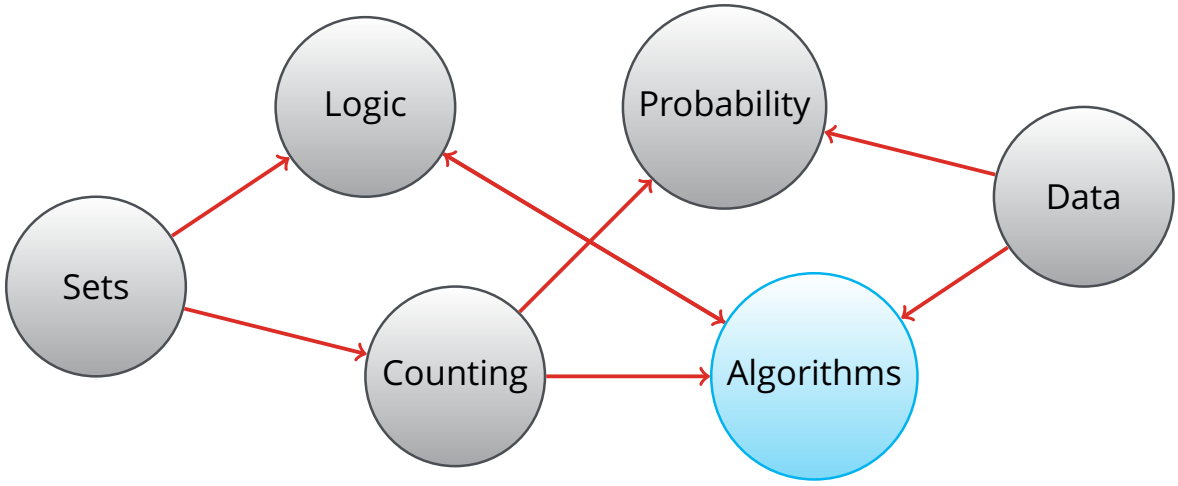
Where can I get help?

- With unit content, e.g., tutorial questions: during your tutorial, during consultation in MASH, or ask online via Studiosity
- With other difficulties related to the unit: contact the convenor
- Personal consults by appointment
- With personal difficulties:
  - Student Services: `https://www.swinburne.edu.au/current-students/student-services-support/`
  - Academic skills: `https://www.swinburne.edu.au/current-students/study-support/improve-skills/`

How can I provide feedback?

- Lecture feedback surveys in Canvas for random lectures
- Via your tutor or the lecturer
- Through the Check In Survey in week 4 and the Student Feedback Survey in weeks 10-exams
- Contact the unit moderator, Dr Tanjila Kanij (tkanij@swin.edu.au)

Where to next?



In which we discuss the big ideas behind computing and algorithmic thinking.