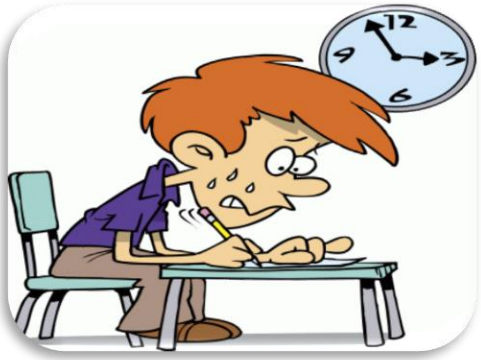
Today!

1. Unit Learning Objectives
2. Chapters We Covered
3. Study Materials
4. Practice Questions + Answers
5. Ask me Anything!



Unit Learning Objectives

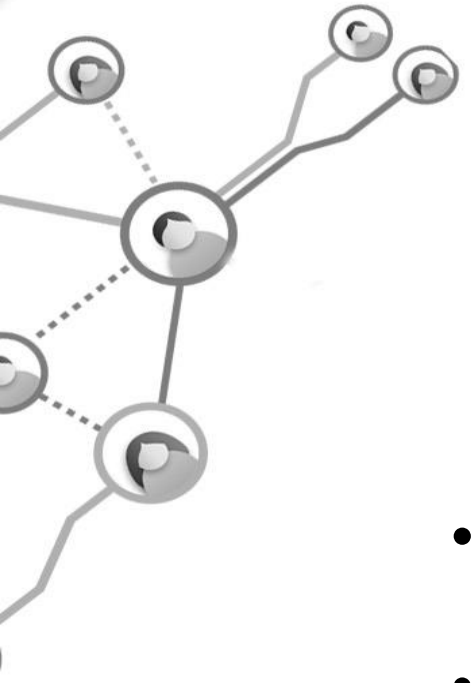
- Understanding fundamental concepts about critical thinking
  - Claims, Issues
  - Premises, Credibility
  - Vagueness, Ambiguity, Generality, Fallacy
- Mastering important thinking technologies and design principles
  - Arguments, Truth Tables
  - Steps in Algorithm Development
  - Modular Design, Cohesion, Coupling
  - Flow Charts, Assertions
- Practicing and exploring critical thinking in real-world scenarios
  - Climate change misinformation
  - Social media, online shopping, video games

Topics We Covered

UNIT WEEKLY ACTIVITIES

Week	Commencing	Topic
1	06 March	- Introduction - Problem Solving Techniques
2	13 March	- Claims and Issues
3	20 March	- Premises and Credibility
4	27 March	- Vagueness, Ambiguity, Generality and Fallacy
5	03 April	- Identifying and Analysing Arguments - Truth-Tables
6^	17 April	- Steps in Algorithm Development - Building Algorithms
7*	24 April	- Building and Checking Algorithms - Selection Statements
8	01 May	- Repetition Statements - Modularisation
9	08 May	- Module Cohesion - Module Coupling
10	15 May	- Flow Charts - Assertions
11	22 May	- Review - Critical Thinking - Review - Problem Solving

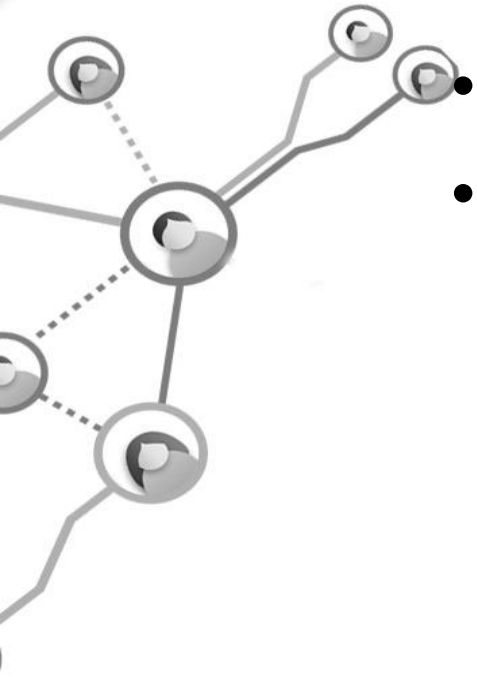
What do I need for unit review and exam preparation



- Lecture Slides and demo vidoes
  - Use the examples in the slides to help you understand and practice
  - You can read the extra reading materials included in the slides if you have time
  - All lecture slides will be made available (**PLEASE DO NOT** Share with other students or upload to the Internet as they are copyright protected by Deakin University)
- Cranky Uncle App and the associated slides and videos provided by John Cook
- Textbook (optional and not necessary)

Exam

- Section A – Multiple Choice Questions (only one choice is correct or best)
- Section B – True/False Questions
- Section C – Short Answer Questions



MCQ

- **_____ refers to what a module must achieve and if any _____ is false, that module has failed to carry out its tasks.**

A) Pre-condition

B) Post-condition

C) Pre-adaption

D) Post-cohesion

MCQ

- **Which of the following could be considered to be an issue of the claim '<u>Texas Instrument created the world's most delicate sensors</u>'?**

A) How does Texas Instrument program the circuits of the sensors?

B) Is Texas Instrument in responsible for creating the world's delicate sensors?

C) What happens when one of Texas Instrument sensors don't function well?

D) Texas Instrument was leading the market of sensors.

MCQ

- **_____ is a Boolean expression at a specific point in a program which will be true unless there is a bug in the program?**

A) Operator

B) Adaption

C) Assertion

D) Formula

MCQ

What is the value of X after evaluating the following pseudocode?

A) 185
B) 250
C) 205
D) 155
E) 145

```
X = 201
Y = 200
IF X = Y + 1 THEN
        X = Y – 50
ELSE
        X = Y
ENDIF
Y = X + 15
X = Y – 10
```

True/False

- **A claim only has two possible values as its value range.**
  - A) True
  - B) False

Short Answer Question

For the following algorithm, copy that algorithm but also include 3 assertions throughout.

```
X = 30
Y = 50

IF (X > 20 AND X < 50) OR X > 0 THEN

        X = 0

ELSE

        X = 50

        Y=100

ENDIF
```

Short Answer Question

```
X = 30
Y = 50
 Assert(X > 0 and X<=30)
IF (X > 20 AND X < 50) OR X > 0 THEN

        X = 0
 Assert(X >= 0 and X<300)

ELSE

        X = 50
 Assert(X=50)

        Y=100
Assert(Y>50)


ENDIF
```

Question Time
Good Luck !