
TIC1002 - Level Up!

Introduction to
Computing and **Programming II**

Teaching Staff

Dr. Soo Yuen Jien

(Lecturer, 1st Half)

COM2 02 – 61

sooyj@comp.nus.edu.sg



Dr. Leong Wai Kay

(Lecturer 2nd Half)

COM2 02 – 11

waikay@comp.nus.edu.sg

Course Objectives

1. Build on the basis of TIC1001
2. Given a **problem**, ability to:
 1. **Model**
 2. **Design**
 3. **Implement**
 - ❑ a computer program as **solution**
3. Introduces software development concepts:
 - ❑ Modular, Reusable, Robust
 - ❑ **Object Oriented Programming (OOP)**

Specific **Learning Outcomes**

- After taking this module, students should be able to:
 1. **Design** and **implement** simple algorithms using simple **data** and **control** structure
 2. **Explain** commonly used sorting and searching algorithm
 3. **Define, defend and debate** about program properties
 4. **Modularize** a large program into reusable component
 5. **Understand** object oriented paradigm in program design

Topics **Schedule** (Tentative)

Week	Topic(s)
1	Review, Deepen, Structure
2	Composite Data Structure
3	Recursion
4	Complexity & Searching
5	Sorting I (<u>CNY eve – Pre-recorded Video</u>)
6	Sorting II

Topics **Schedule** (Tentative)

Week	Topic(s)
7	Midterm Test
8	Abstract Data Type, Stack
9	Queue
10	OOP, C++ Class
11	Inheritance, Polymorphism
12	C++ Standard Template Library (STL)
13	Revision

Typical Weekly Schedule

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Week X				Lecture			
				Lecture Quiz			
				Tutorial			
				Problem Set			
Week X+1							
	Tutorial					Discuss in Tutorial	
	Problem Set						
Week X+2							
	Problem Set						

Tutorial Timing

Saturday Morning

2 hours

9.30am - 11.30am

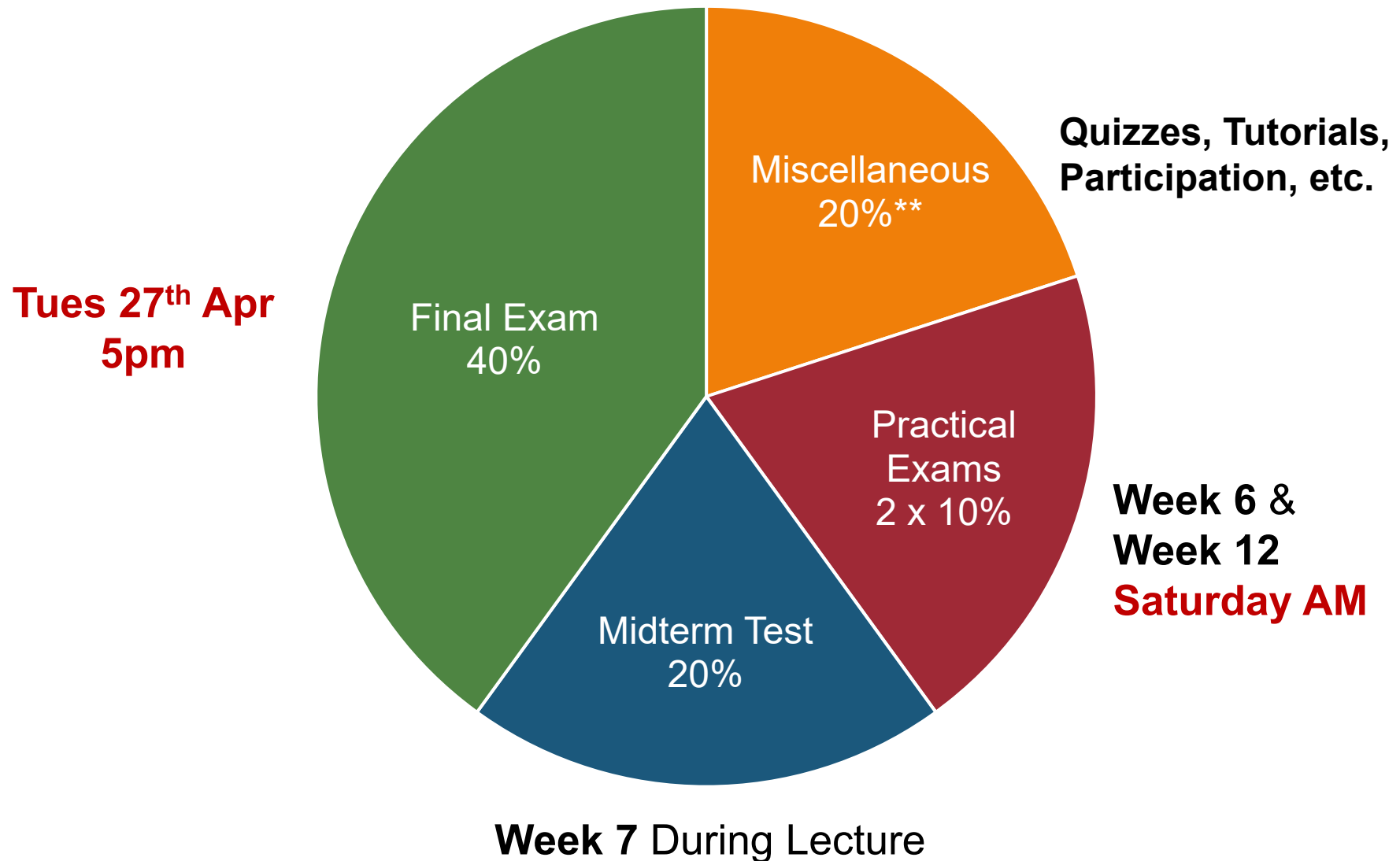
Saturday Afternoon

2 hours

2pm - 4pm

- Used to discuss tutorial questions and problem sets
- **Please select your preferred timing in ModReg System**

Assessment Weightage



Course **Resources**

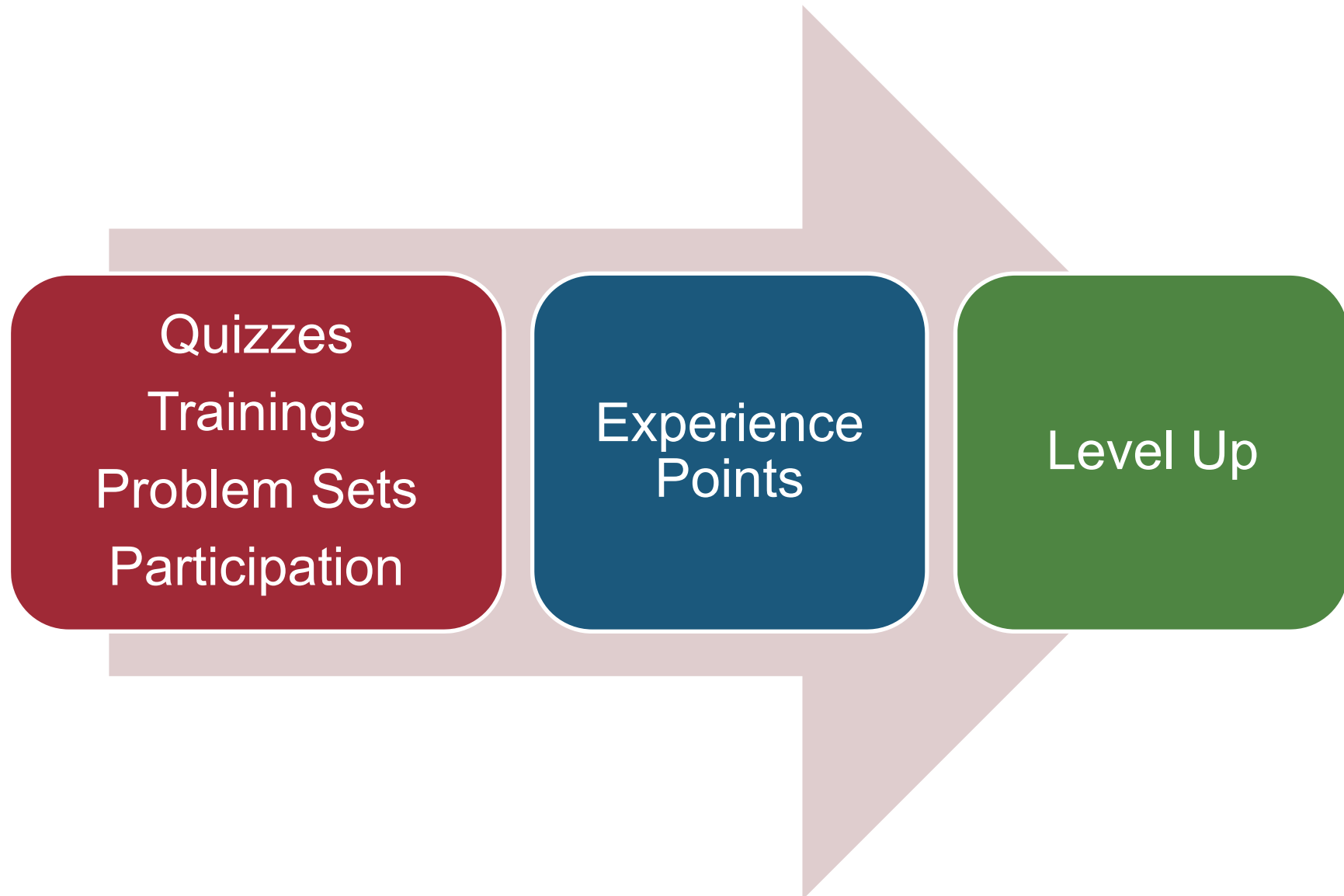
■ **Luminus**

- ❑ **Gradebook**
- ❑ **[Lecture recording]**

■ **Coursemology**

- ❑ Announcements
- ❑ Quizzes
- ❑ Trainings
- ❑ Problem Sets
- ❑ Forum participation
- ❑ **[Lecture recording]**

Coursemology



Right Perspective for CA

- There are abundant ways to earn the 20%
 - Use your time wisely
- The learning is in the **process**
 - Having the answers is **not the point**
- Coding / problem solving needs a thinking "zone"
 - Allocate a reasonable sized chunk of time, instead of many small chunks
 - Focus deeply for one question at a time