# COMP1022Q
## Introduction to Computing with Excel VBA

# Course Details
## Spring 2020

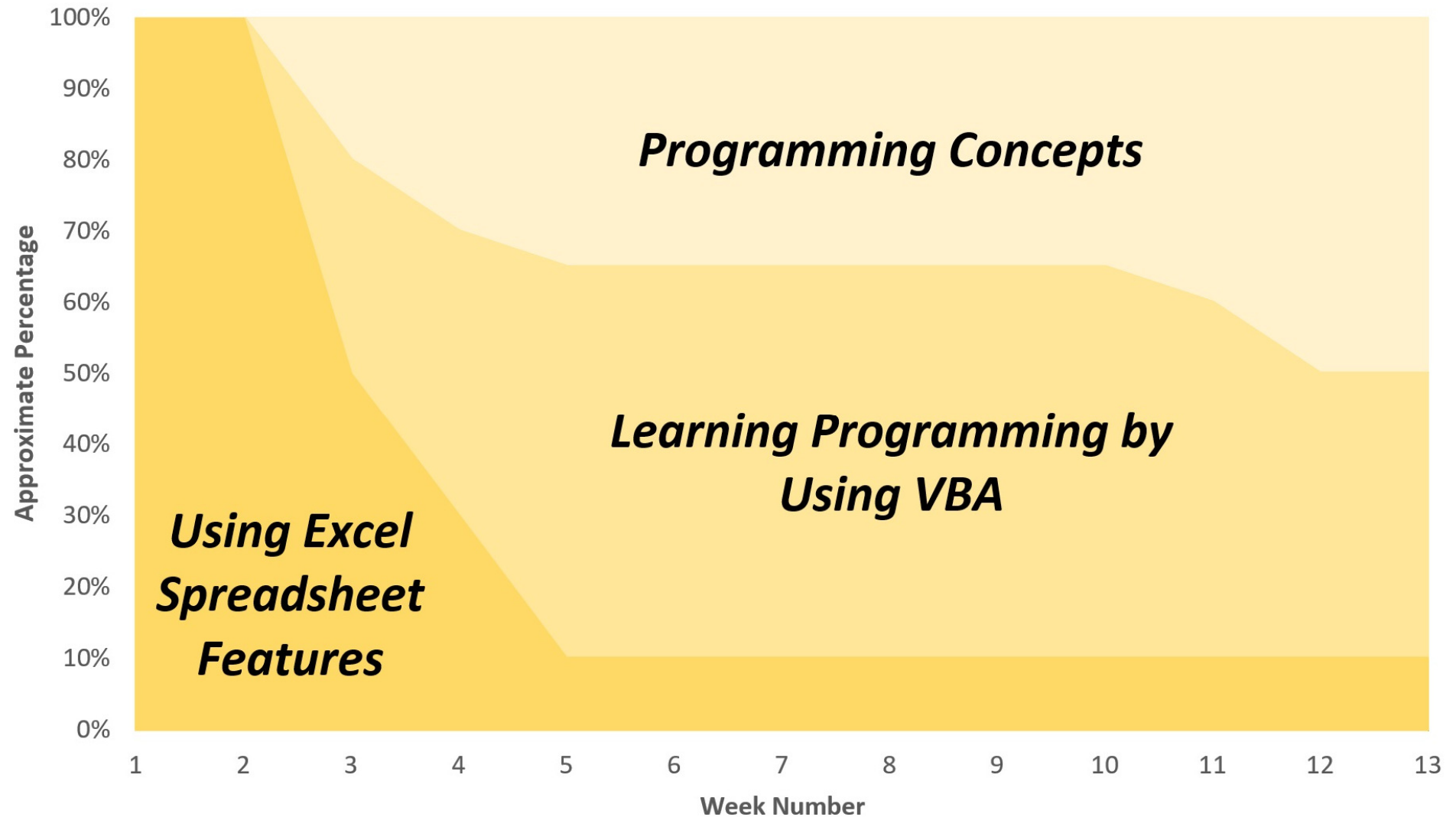Gibson Lam and Cecia Chan

# COMP1022Q
## Introduction to Computing with Excel VBA

- Welcome to COMP1022Q !

- This PowerPoint goes through all the basic information about the course

- This course is all about the Excel program – how to use it, how to program it

- After you learn programming with Excel, you can easily program lots of other things

- Let's start by listing the goals of the course

# Course Outcomes

- On successful completion of this course, students are expected to be able to:

  1. Manipulate and visualize data using Microsoft Excel

  2. Program using the VBA language within Microsoft Excel to build effective solutions to problems

# Course Content Across the Weeks



Approximate Percentage (y-axis), Week Number (x-axis)

**Programming Concepts**

**Learning Programming by Using VBA**

**Using Excel Spreadsheet Features**

# Official Information

| | |
|---|---|
| **ATTRIBUTES** | Common Core (QR) for 4Y programs |
| **EXCLUSION** | COMP 1021, COMP 1022P, COMP 2011, ISOM 3230 |
| **DESCRIPTION** | This course is designed to equip students with the fundamental concepts of programming using the VBA programming language, within the context of the Microsoft Excel program. Students will first learn how to use Excel to analyze and present data, and will then learn how to use VBA code to build powerful programs. |

# What This Course Is / Is Not

- This course is essentially:
  - a programming course for beginners
  - an introductory course for some computer science concepts
  - a course which encourages you to think logically
- This course is not:
  - a business course
  - a finance course
  - a math course

# Three Introductory CS Courses

- There are 3 introductory courses run by the CSE department that anyone can join

- Each of them teaches computer programming and related techniques, but there are some differences:

- COMP1021 Introduction to Computer Science

  - Teaches the Python programming language, which is a really good language for learning programming

  - It looks at some areas of computer science (CS) that the other two courses don't look at, to get a better appreciation of CS

# Three Introductory CS Courses

- COMP1022P Introduction to Computing with Java
  - A lot of computer languages think about things as *objects*
  - This course focusses on teaching the concept of objects and how they interact using the Java programming language
- COMP1022Q Introduction to Computing with Excel VBA
  - This course is totally focused on the Microsoft Excel program, which is part of the Microsoft Office group
  - First, students learn how to use Excel (without programming), then they learn how to program it

# Lecture and Lab Delivery

- As of now, we need to delivery our lectures and labs online because of the Covid-19 virus
  - For lectures, we will do them live using Zoom in our assigned lecture sections
  - For labs, lab video instructions will be released before the lab sections and then the assigned lab sections will become TA consultation hours on Zoom
- Things may get adjusted as we don't know what would happen later, e.g. changing to mixed-mode teaching

# Lecture Sections

- Here are the lecture sections:
  - **L1**: Mon and Wed 10:30-11:20am, room 1104
  - **L2**: Mon 1:30-2:20pm and
    Fri 9:00-9:50am, room 2464
  - **L3**: Wed and Fri 4:30-5:20pm, room 2502
  - **L4**: Mon and Wed 9:30-10:20am, room 2306
  - **L5**: Tue and Thu 1:30-2:20pm, room 2306

- The assigned rooms **are not used** at the start as everything will be done online
- We may get back to those rooms when face-to-face teaching can be resumed

# Lab Sections

- Here are the lab sections:

  - **LA1**: Fri 1:30-3:20pm
  - **LA2**: Wed 12:30-2:20pm
  - **LA3**: Tue 6:00-7:50pm
  - **LA4**: Mon 5:00-6:50pm

  - **LA5**: Wed 4:30-6:20pm
  - **LA6**: Wed 10:30am-12:20pm
  - **LA7**: Tue 10:30am-12:20pm
  - **LA8**: Tue 2:30-4:20pm

- The assigned lab venue is rm 4213 but it is **not used** at the start of the semester

- We may get back to the room when face-to-face teaching can be resumed

# Lab Venue

- Room 4213 is also called 'Computer Science Lab 3'
  - Near lift 19 in the Computer Science lab area
  - You could use http://pathadvisor.ust.hk to find it:

# Course Instructors



- Gibson LAM (L1, L2 and L3)
  - Email: gibson@cse.ust.hk
  - Office: room 3553



- Cecia CHAN (L4 and L5)
  - Email: kccecia@cse.ust.hk
  - Office: room 3525

- The best way to contact us is via email
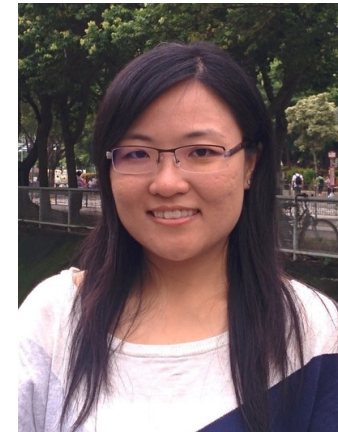
# Main Lab Teacher

- Peter CHUNG
  - Email: cspeter@cse.ust.hk



- Peter will be the teacher in the lab video instructions
- Other TAs will help in the TA consultation hours during the lab sections

# Your Computer Accounts

- You have two computer accounts:

- Your ITSC account
  - This is given to you when you join UST
  - This is your main email account at UST

- Your CSD account
  - This is given to you when you first join a COMP course

- You need to enable your CSD account….
  - Then you can access the course web site
  - And later in the semester you can work in the lab room (room 4213)

# Course Web Site

- All course information is presented via the web at

    `https://course.cse.ust.hk/comp1022q/`

- Within Campus (or Using HKUST VPN)
    - At the start of the semester, there won't be any need to log in to the web site
    - Later you will need to use your Computer Science Department (CSD) account (**not** your ITSC account) to log in to the web site

- Outside Campus
    - You will need to use your CSD account to log in to the web site
    - You have to activate your CSD account before you can use it
    - Please refer to last few slides in these notes for details about how to activate your CSD account

# Starting the Course



COMP1022Q Introduction to Computing with Excel VBA

Spring 2020

canvas site
Book website
Academic calendar
**Jump to week:**
1

**Latest Information**

ⓘ There is no labs in the first two weeks of the semester
ⓘ Please go here to register your CSD account (you may have to wait a day or two after joining the course before doing this)

| Week | Lecture 1 | Lecture 2 | Lab Session |
|---|---|---|---|
| **1**<br><br>**FEB**<br>S M T W T F S<br>16 17 18 **19 20 21 22**<br>**23 24 25** 26 27 28 29<br><br>**L1:** 19 Feb & 24 Feb<br>**L2:** 21 Feb & 24 Feb<br>**L3:** 19 Feb & 21 Feb<br>**L4:** 19 Feb & 24 Feb<br>**L5:** 20 Feb & 25 Feb<br>**Labs:** No labs | 📄 **Course Details** [ B&W, colour ]<br>• Course rubrics here<br>📄 **About Microsoft Office** [ B&W, colour ]<br>📘 Book pages 1-4<br>• Get Office 2019 for your machine here<br>• The Virtual Barn installation guide, user guide | 📄 **Starting to Use Excel** [ B&W, colour ]<br>📘 Book pages 4-22<br>📁 Examples used in the notes here<br>📁 Examples of Excel charts and how to use them here | ⓘ There is no labs in the first two weeks of the semester |

- There is no lab teaching in the first two weeks of semester
- The first lab will be taught from Wed 4 Mar – Tue 10 Mar

# Course Notes and Lab Material

- The notes will be released on the web site before the lecture so you can access them during class, and download/print them before class, if you like

- The labs and their video instructions will also be released before they are taught, so you can do the lab work before the TA consultation sections begin

# Course Book

- All assessments of the course are based on the materials released on the course website

- You may consider getting the book for this course, which is shown on the next slide

- It is written specially for this course

- The midterm and final exam will be open book/open notes, so a book may be useful there

# Excel and Excel VBA Programming for Beginners – 3rd Edition

- Written by David Rossiter and Gibson Lam

- About 320 pages

- The book should already be in the UST bookshop

- It is optional so you don't have to buy one if you don't want to
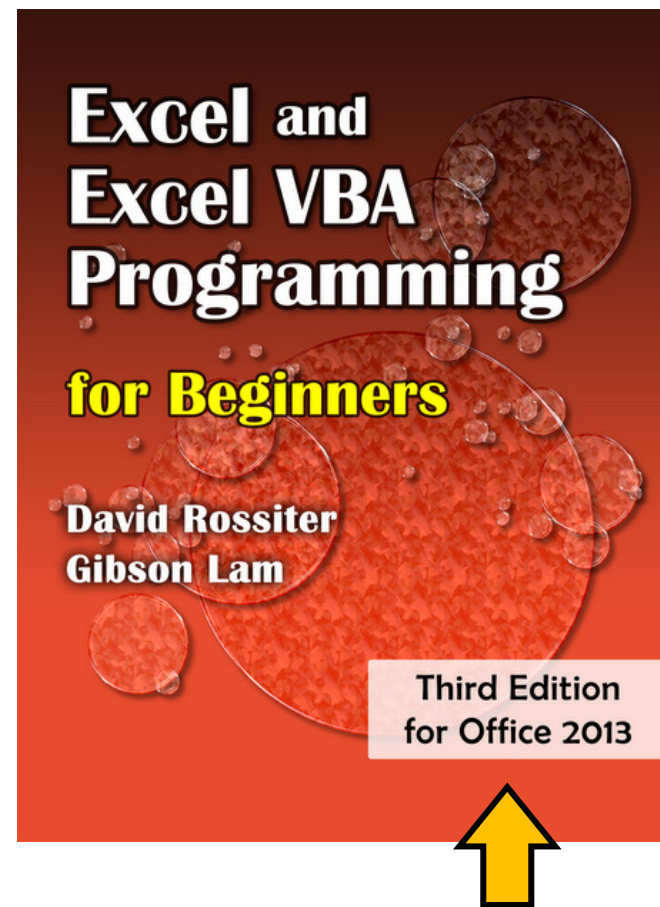
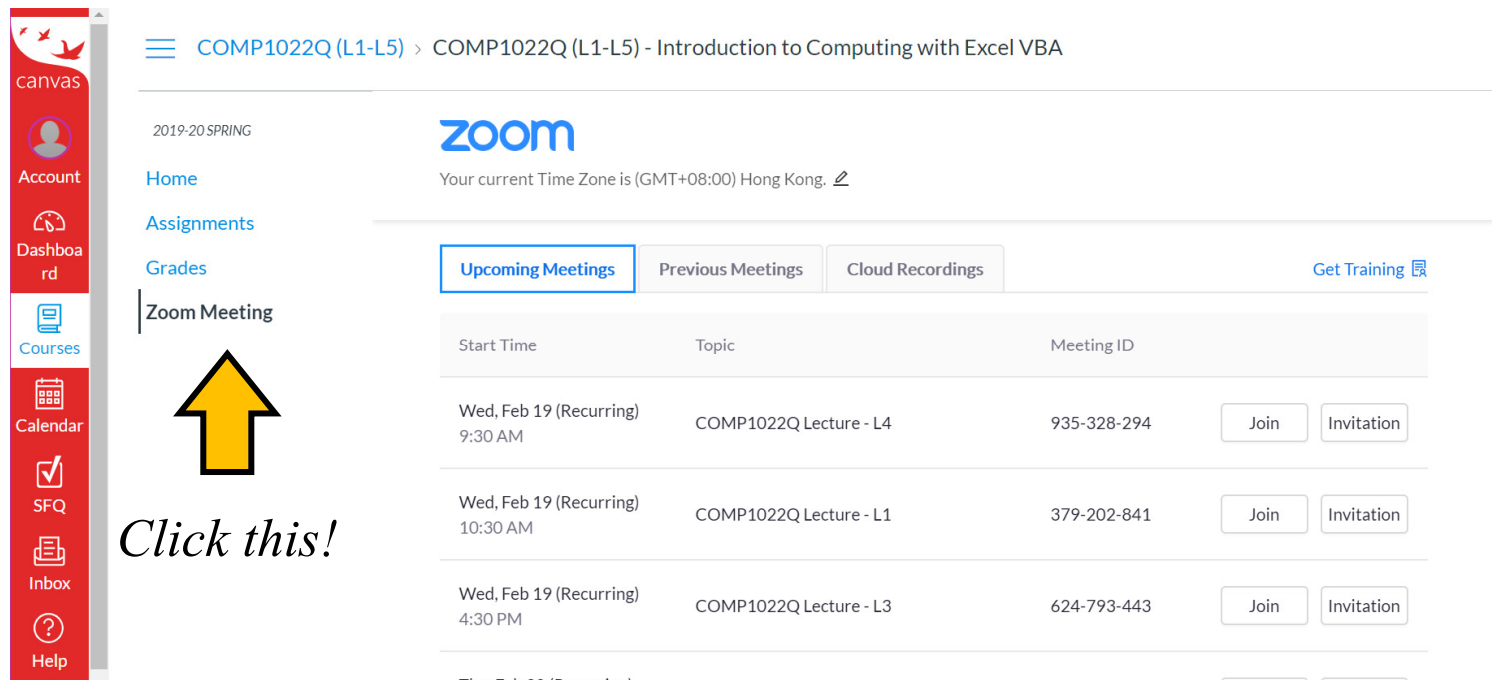

*The book applies to all recent versions of Office!*

# The HKUST canvas website
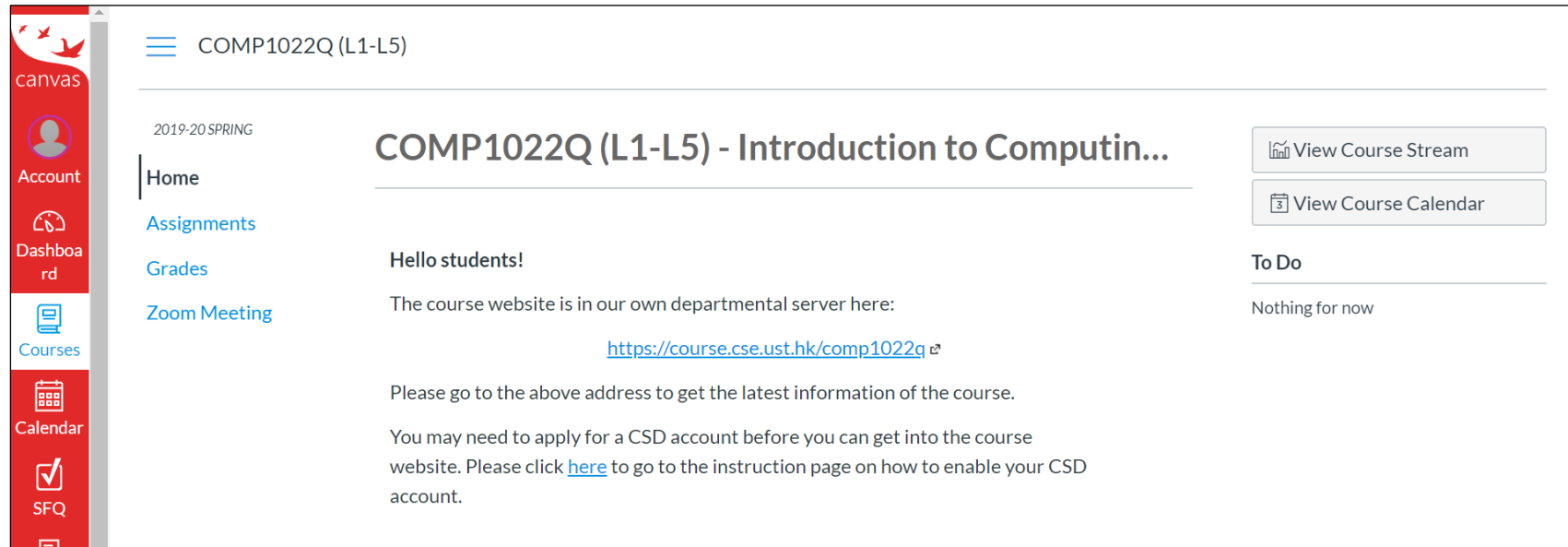


- Our course will not use the canvas website to release course materials, but
we will use canvas for handling lab submissions,
online exams, grading and scheduling Zoom meetings

# Zoom Meetings

- You can find the Zoom meetings that we have set up for lectures and labs inside canvas :

# Zoom IDs and Links

- Alternatively, you can get a summary of the Zoom meetings of the course in the following canvas page:

  https://canvas.ust.hk/courses/29889/pages/
  zoom-ids-and-links

- You can join a Zoom meeting by using the Zoom links shown inside the page

## Zoom IDs and Links

Here are the Zoom IDs and links of the Zoom meetings for the lectures of the course:

| Lecture Section (start time) | Zoom ID | Zoom Link |
|---|---|---|
| Lecture - L1 (Mon/Wed, 10:30am) | 379-202-841 | https://hkust.zoom.us/j/379202841 |
| Lecture - L2 | 589-575-215 | https://hkust.zoom.us/j/589575215 |

# Going to the Zoom Lectures

- You should go to the Zoom meetings of **your registered lecture section**

- The instructor will start the Zoom meeting at least 5 minutes ahead of the lecture time so you can join the meeting before a lecture starts

- You can do that by clicking on the link provided in the Zoom IDs and Links page shown on the previous slide

# Conduct During Zoom Sessions

- Your audio and video are both muted when you join a Zoom meeting of the course, please don't unmute the audio / video unless the teachers ask you to

- Please don't abuse the chat room with private or silly messages

- Please don't put annotations on the teacher's screen unless you are told to do so
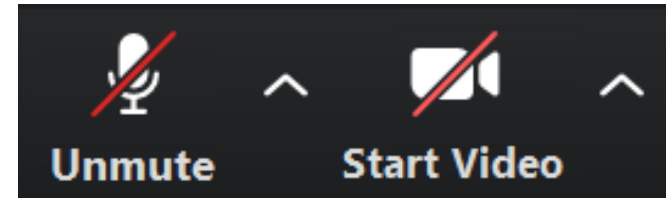
# Taking Attendance in Lectures

- We won't take attendance during the lectures

- If you don't go to the lectures, you may quickly become 'lost' and won't understand the course content and labs – but that's your choice!

# Going to the Labs

- You will do the lab work by watching the lab video instructions on your own

- If you have any questions, you can then ask the TAs during the lab sections

- At this moment, we are still working out the best way to do that

- It can be done using either breakout rooms or waiting room, which are both Zoom features

- We will let you know the details later

# Taking Attendance in Labs

- The lab sections are TA consultation hours so we won't take attendance during the labs

- If you can finish the work on your own, you don't need to go

- In case you want to ask questions, you should **go to your registered lab section** as Zoom meetings cannot hold too many concurrent connections

- Lectures                                                          Worth:
  - Lectures are typically used to give a solid introduction to a topic, with lots of demonstrations
  - Then the labs are for you to explore the subject in depth
- Labs
  - We will probably have 8 lab sessions
  - These are a major part of the course
  - 4 lab projects will be handed in for marking   4 × 10% = **40%**
- Midterm exam                                                    **20%**
  - An online midterm exam, about 1 hour 30 mins long
    - The exam will be held on **Wed 8 Apr** from 7pm onwards
  - More details will be released later in the course
- Final exam                                                        **40%**
  - This will *likely* be an online exam, around 2 hours 15 mins

# Cheating Policy

- If you get caught cheating, both you and the other person get zero for that work, and your end-of-semester grade is lowered one sub-grade i.e. a C grade becomes C-

- It doesn't matter if you only copied a little, the penalty is the same for both the source and the copier

- Copying anything from a previous semester is also cheating, make sure you only use material from this semester

# Some Interesting Things We Have Heard

- I lent my USB drive to others and forgot my work was on it!

- I lent my work to others only for their reference!

- I submitted someone else's work by mistake!

- My friend prepared a template which I used to do the work, and I forgot to remove his name!

- And so on… sorry, but all these kinds of things get zero

# Things That Are OK to Do

- Discussing the work with others is fine; that's different from direct copying

- Another thing you might find helpful is to search the Internet

- There's lots of material about Excel and VBA on the web, and you are welcome to learn from it

# How to Enable Your CSD Account

- Before you can access the web site and work in the lab room (room 4213) you need to enable your CSD account

- Run a browser, go to:

  `https://password.cse.ust.hk:8443/pass.html`

- Log in using your ITSC details

## CSD Password Setting Service

You may set your password for CSD machines (both Unix workstations and PC).

**Steps:**

1. CSD account name should normally be your ITSC account name.
2. If you are UG students, do not check the box for Faculty/PG domain.
3. Fill in the form, click "Go UPDATE" when finished.

CSD Account Name [                    ]

New Password (8 chars or more) [                    ]

Retype Password [                    ]

Set the password of:
- ☐ Unix account at Faculty/PG domain
- ☑ Unix account at UG domain
- ☑ PC account at domain CSD

[Go UPDATE]  [RESET Form]

- Tick the bottom two check boxes (**Unix account at UG domain** and **PC account at domain CSD**)
- Enter your ITSC account name and password (your CSD account name is the same as your ITSC account name)
- Finally, click 'Go UPDATE'

- You will see something like this:



- You may need to wait a few minutes before your CSD account is activated
- Now you can access any CSD computers i.e. the computers we will use in CS lab 3 (room 4213)