#### COMP1021 Introduction to Computer Science

## Course Details Spring 2022

David Rossiter

#### COMP1021 Introduction to Computer Science

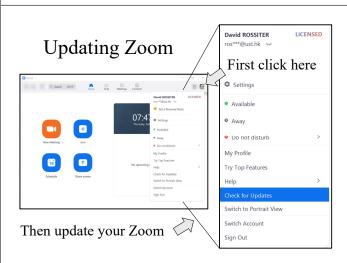
- Welcome to COMP1021 Introduction to Computer Science!
- This presentation goes through all the essential information about the course

COMP1021 Course Details Page 2

#### COMP1021 and Zoom

- All classes are totally on-line until 17 Feb
- We have to wait a week for the University to say what happens after that
- If we have mixed mode teaching there will be lecture teaching in a classroom – and there will be a Zoom room at the same time
- Lab support is provided through Zoom

COMP1021 Course Details Page 3



• This is the official information about the course



#### This Course

- COMP1021 Introduction to Computer Science
  - Teaches you the basics of programming
    - We use the Python programming language, which is a really good language for learning programming
  - Gives you an introduction into the ways of thinking used by programmers
    - This means you can use these ways of thinking if you learn other programming languages
  - This is a 'hands on' course where you gain experience by developing several projects

COMP1021 Course Details Page 6

#### This Course - Outcomes

- On successful completion of this course, students are expected to be able to:
- 1. Demonstrate programming skills, with an emphasis on the Python programming language
- 2. Write programs in interesting areas such as game programming, computer graphics and user interface design

# Python is Popular

- Python is now one of the most popular programming languages
- It's also quite easy to learn so it is one of the most commonly used languages for teaching programming

# **Examples of Companies** That Use Python

- Google
- Facebook
- YouTube
- Instagram
- Dropbox
- Spotify
- Quora

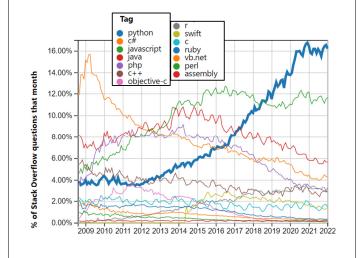
- You have probably heard of some of these 'big name' companies that use Python
- Paypal
- Netflix
- Reddit
- Industrial Light and Magic

COMP1021 Course Details COMP1021 Course Details Page 8 COMP1021 Course Details

## The Most Popular Language

- Stack Overflow is a web site where people ask questions about programming
- There are more questions about Python than any other language
- This suggests Python is the most popular programming language in the world

COMP1021 Course Details Page 10



## A Suitable Computer For This Course

- PCs are good and Macs are good
- iPads and Android tablets are not good for this course
  - Almost all programmers don't use tablets to do programming
  - For example, although you may be able to install
    Python on an iPad or Android device you
    probably won't have access to the IDLE editor we
    use, you will have problems if you need to add
    extra libraries, and there may be other problems

## Lecture Flexibility

- This course has 5 lecture sections
- If you want to, you can go to any lecture
   you don't have to go only to the
   lecture section which you are registered for
- A couple of days after the lecture we will post the video recording of the lecture – you will be able to view the video recording of any lecture
- So you have a lot of flexibility:)

COMP1021 Course Details Page 13

#### Course Instructors 1/2

• Prof. David ROSSITER

- Email: rossiter@cse.ust.hk

- Office: room 3554



• David will teach L1, L2, L3 and L4

COMP1021 Course Details Page 14

#### Course Instructors 2/2

· Prof. Wilfred NG

- Email: wilfred@cse.ust.hk

- Office: room 3503



• Wilfred will teach L5

COMP1021 Course Details Page 15

## **Quick Summary**

Section	<b>Teaching Times</b>	Instructor	Where?
L01	Tues, Thurs 1030	Prof. ROSSITER	Room G010 in CYT building
L02	Wed, Fri 1700	Prof. ROSSITER	Room 2465, lift 25-26
L03	Wed, Fri 1330	Prof. ROSSITER	Lecture theater J
L04	Tues, Thurs 1200	Prof. ROSSITER	Room G010 in CYT building
L05	Tues, Thurs 1530	Prof. Wilfred NG	Lecture theater K

· See next slide

#### Lecture Modes

- As mentioned before, the semester begins with online teaching, so no-one will be in those rooms
- If HKUST tells us to change to another mode of teaching then you can join a lecture by going to the actual room, and/or via the Zoom room for that lecture

COMP1021 Course Details Page 17

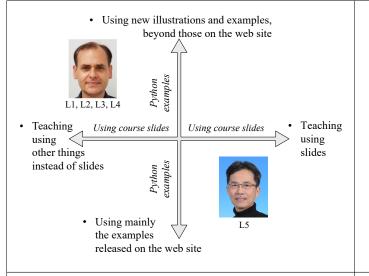
#### **Instructor Differences**

- Both instructors teach the same concepts
- However, the way in which they teach the concepts may be different. For example:
- One instructor may not show the slides which we release every lecture; another instructor may show all of them

The x axis on the next slide

• One instructor may show their own example programs and interactive elements; another instructor may stick to the examples from the course web site

The y axis on the next slide



#### Use Email to Contact Us

- Please use email to contact us
- The canvas system gives you the ability to contact us - but it doesn't work properly, please don't use the canvas system to contact us, instead use email to contact us!
- This course doesn't have any web presence in Facebook/Twitter/Instagram, etc

COMP1021 Course Details Page 20

# **Asking Questions During Lessons**

- Sometimes it's hard for instructors to answer questions in the middle of teaching
- So during the lectures we will try to have helpers in the lecture Zoom room to answer any questions you have during the lectures

COMP1021 Course Details Page 21

## **Teaching Assistants**

- As well as the instructors there are other people called Teaching Assistants, for example:
  - They help answer any questions you may have e.g. they give lab support
  - They help with the midterm and final exams
  - They help mark your work
- The main assistants are shown on the following slides, there will also be others

COMP1021 Course Details Page 22

## Main Teaching Assistant 1

- · Peter CHUNG
  - Email: cspeter@cse.ust.hk
  - Office: room 2532



COMP1021 Course Details Page 23

## Main Teaching Assistant 2

- Nam-Kiu CHAN
  - Email: namkiu@cse.ust.hk
  - Office: room 3543



COMP1021 Course Details Page 24

#### COMP1021 in Canvas

- At HKUST, lots of courses use the canvas web site https://canvas.ust.hk
- COMP1021 will use it for a few things, probably:
  - You will hand in your lab submissions there
  - You will hand in your exam answers there
  - There will be a Discussions forum, which might be useful for asking questions, and reading answers

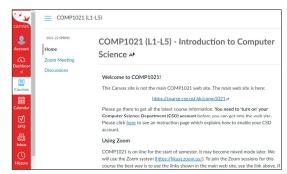
Course Details

Page 25

• For COMP1021, canvas is not the main web site

COMP1021

#### COMP1021 in Canvas



• For COMP1021, canvas is not the main web site

#### The Main Course Web Site

- All course information is presented via the web at https://course.cse.ust.hk/comp1021
- Within Campus (or if you are using the HKUST VPN)
  - There won't be any need to log in to the course web site
- Outside Campus
  - You need to use your Computer Science Department (CSD) account to log in to the web site
  - You have to activate your CSD account before you can use it
  - Please refer to the slides at the end for details about how to activate your CSD account

#### The Main Course Web Site



• The first lab will take place in week 3, it is not a hand-in lab

#### Course Notes

P Getting Started with Python [ 1spp, 4spp, 6spp, 9spp ]

• 1spp / 4spp / 6spp / 9spp means 1/4/6/9 slides per page

- All notes are colour, with no background, so they are good for both viewing and printing
- You'll be able to access the notes on the web site before the lecture begins

COMP1021 Course Details Page 29

#### **Zoom Links**

• You can find links to all the Zoom links in the main course web site, for each lecture <a href="https://course.cse.ust.hk/comp1021">https://course.cse.ust.hk/comp1021</a>



## Lecture Video Recordings

- Later, after we receive the video recording links we release them in the same place
- · The text and icon changes



### Zoom Links

- You can find a list of links inside canvas
- However it's better to use the links on the main site



 The Zoom links for a specific lecture section don't change, they are the same every time

## **Zoom Conduct During Lectures**

- · You don't have to show your camera
- Your audio will be automatically muted when you join



- If you unmute it, everyone in the room will hear you
- Please don't unmute your audio unless:
  - There's a problem and the instructor needs to know ASAP, or:
  - The instructor asks you to unmute your microphone e.g. you might get asked a question

COMP1021 Course Details Page 33

#### Labs

- We will have 6-8 lab sessions
- All labs are self-paced
- Each lab is a Python mini-project
- Each lab has a web page

COMP1021

• Each lab page explains everything, giving you step by step instructions with video guidance

Course Details

Page 34

#### Labs

- There's no labs in week 1 and week 2
- The first lab will be released for you to do in week 3
  The first lab is not a hand-in lab
  The first lab is 2 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
- The second lab will be released for you to do in week 4 it will be a hand-in lab!

COMP1021 Course Details Page 35

## Optional Lab Help

- There will be Zoom rooms which you can go to at the time of your scheduled lab
- People will be in the Zoom room to help you, in case you have any questions
- You don't have to go there unless you have questions you want to ask
- You don't have to do anything at the time of your lab – you choose when to do your work

## Releasing Course Material

- The notes will be released on the main web site <a href="https://course.cse.ust.hk/comp1021">https://course.cse.ust.hk/comp1021</a> a day or two before the lecture
- The labs will also be released a day or two before their scheduled time

COMP1021 Course Details Page 37

#### March Schedule

• There's no holidays in March, so lecture 1 and lecture 2 take place as usual each week

 March
 S
 M
 T
 W
 T
 F
 S

 4
 1
 2
 3
 4
 5

 5
 6
 7
 8
 9
 10
 11
 12

 6
 13
 14
 15
 16
 17
 18
 19

 7
 20
 21
 22
 23
 24
 25
 26

 8
 27
 28
 29
 30
 31
 31

- If the midterm exam is online then we will have a midterm practice session at 2pm on Saturday 19 March more details later in the semester
- The **midterm** is 2pm, Saturday 26 March

   more details later in the semester

COMP1021 Course Details Page 40

#### **Canvas Discussions**

- There is a 'Discussions' page in canvas
- You are welcome to post questions there
- Be wise! If you have a problem with some code just post the few lines of relevant code, not your whole lab code!
- The quickest way to get a response is to directly email the instructor or TA (see following slides)
- The instructor/TA will then put a copy of his reply in the Discussions page, for everyone to learn from

#### • This semester we need some creative scheduling

 You don't have to memorise these - all lecture information will be shown in the COMP1021 web site

## February Schedule

#### **February**



- Lectures begin on Tuesday 8 February
- We use a weekly pattern of lecture 1 and lecture 2

COMP1021 Course Details Page 39

## April Schedule

# 

- There won't be a lecture 1 in this week; there will be a lecture 2
- This course doesn't have any lectures on Mondays, so we will have lecture1 and lecture 2 as normal
- Week 10: for all sections there will be a lecture 1
- If your lecture 1 is on Wednesday 13 April you need to attend the lecture 1 (or see the video recording) of another section (section L1/L4/L5)

COMP1021 Course Details Page 41

## May Schedule



 This course doesn't have any lecture sections or labs on Monday, so we will have lectures as normal

 All lecture information will be announced in advance, in the COMP1021 web site

COMP1021 Course Details Page 42

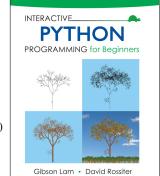
#### Course Book

- The course book is shown on the next slide
- This book is written specially for this course
- Both the midterm and final exam will be open book/open notes, you could use the book then
- However, we will never assume you have the book

Interactive Python Programming for Beginners

- Written by Gibson Lam and David Rossiter
- About 250 pages
- Student price is HK\$259.30

(with the 13% student discount)



## Getting the Book

- We have been told: You can get the book by physically going to the HKUST book shop (9am-6pm)
- Or you can get the book from the on-line system
- "After students have successfully got the purchase acknowledgment from the on-line system they can make the request to mail the book to their correspondence address"
- "However, the mail service is only limited to the local area, and a courier service fee of approximately HKD30 will be collected by the courier when the book is delivered to them"

#### Midterm and Final Exams

- There will be a midterm and a final exam
- The midterm exam will be: Saturday 26 March 2022, 2pm to 4pm
- If the midterm is online there will be a **practice** midterm exam a week before the midterm: Saturday 19 March 2022, 2pm to 3pm
- There will be more details about both of these later in the semester
- (The final exam date is not known until roughly week 11 of the semester)

#### The Midterm Exam

- COMP1021 teaches you programming
- · Programming is all about thinking logically
- Sometimes a few students take time to get used to this way of thinking and don't do so well in the midterm – so how can we help those students?
- Answer: for every student, we will assess you in 2 different ways and use the best calculation for you
- This is an automatic process, you don't need to do anything!

COMP1021 Course Details Page 47

#### At the End of Semester

- The first way we assess you is this (more midterm %): Midterm 24%, Lab projects 36%, Final exam 40%
- The second way we assess you is this (less midterm %): Midterm 0%, Lab projects 42%, Final exam 58%
- We will automatically choose the highest mark of these two calculations

COMP1021 Course Details Page 48

#### Lectures

#### Worth: - Lectures are used to give solid introductions

- to the topics, with lots of demonstrations
- Then the labs are for you to explore the subject in depth
- · Labs
  - We will have 6-8 lab sessions
  - These are a major part of the course!  $3 \times 12\% = 36\%$
  - -3 lab projects will be handed in for marking  $3 \times 14\% = 42\%$
- Midterm exam 24%/0%
  - An open book/open notes midterm exam
  - More details will be released later in the course
- Final exam 40%/58%
  - This will be another open book/notes exam

#### We Won't Take Attendance

- We won't take attendance during the lectures or labs
- If you don't keep up with the lectures or labs, you may become 'lost' and won't understand what's happening – but that's your choice!

COMP1021

Page 50

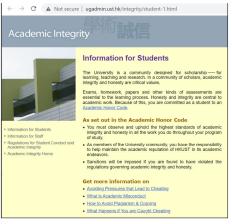
Course Details

## **Cheating Policy**

- · The University has recently increased cheating penalties
- · If you get caught cheating the penalties may be huge!



- You may get an automatic F grade for any cheating!
- It doesn't matter if you only copied part of something
- The penalty is applied to both the source and the copier
- Copying anything from a previous semester counts as cheating – only use files from this semester!
- · Cheating cases will be processed at the end of semester
- You would be crazy to cheat in this course, don't do it!



· Take a look at http://ugadmin.ust.hk/integrity/student-1.html

## 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... all these kinds of things get processed as cheating cases

COMP1021 Course Details Page 53

## Things That Are OK to Do

- Discussing the work with others is fine; that's different from direct copying
- There's lots of tutorials about Python on the web, and you are welcome to learn from them
- However, make sure the material is talking about Python 3, not an earlier version of Python

## Your UST Computer Accounts

- You have two computer accounts:
- Your ITSC account
- Your CSD account
- This is given to you when you join UST
- This is given to you when you first join a COMP course
- This is your main email account at UST
- You need to enable your CSD account
- This will give you access to the course web site outside HKUST

COMP1021 Course Details Page 55

- You should see something like this:
- This system is not operated by us, it is all handled by *cssystem@cse.ust.hk*

# Password Changing Result Password changing for jimw at 'Unix account for UG' COMPLETED. You UNIX password will be activated in 5 mimutes. Please try logging in then. Password changing for jimw at 'PC account at domain CSD' COMPLETED. Note: Please kill off your Browser window NOW! Otherwise, any other people can change password AS YOU. - cxyystom@cse.ust.hk

• Instead of this text, it may say you need to apply again 2-3 days later – that means the CSD hasn't received your information yet from the Student Information System, so try again later

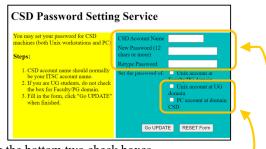
## How to Enable Your CSD Account

• Run a browser, go to:

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

 Log on using your ITSC details





- 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'