

COMP1021
Introduction to Computer Science

Course Details
Spring 2022

David Rossiter

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 Introduction to Computer Science

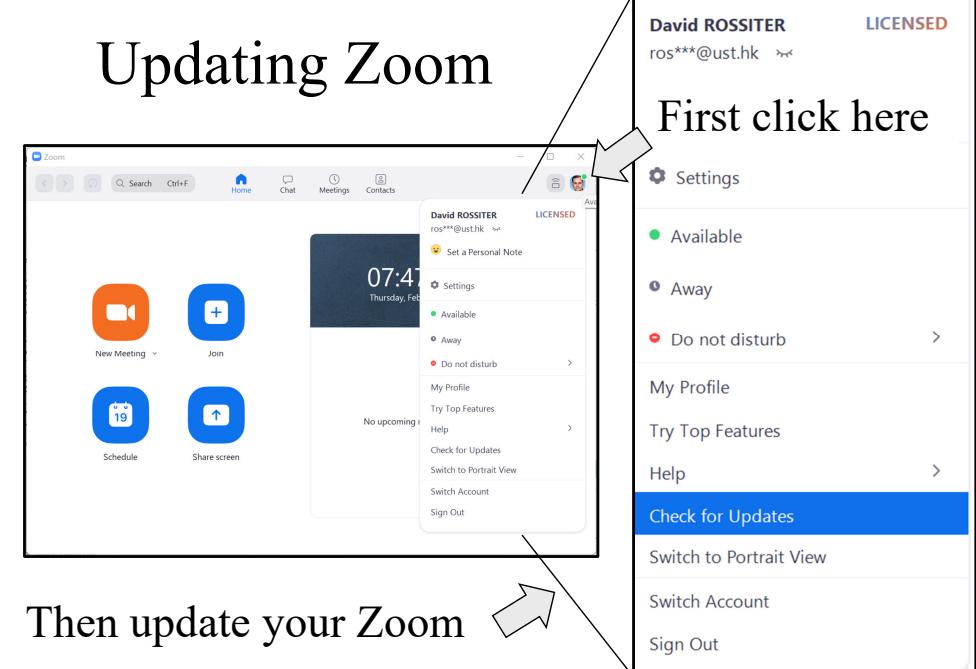
- Welcome to
COMP1021 Introduction to Computer Science!
- This presentation goes through all the essential information about the course

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Updating Zoom



- This is the official information about the course

Course Detail	
Career	Undergraduate
Units	3.00
Grading Basis	Graded A+ to F
Course Components	Laboratory Required Lecture Required
Exclusion	COMP 1022P, COMP 1022Q (prior to 2020-21), COMP 2011, COMP 2012H
Enrollment Information	
Typically Offered	Fall, Spring
Description	
<p>This course introduces students to the world of Computer Science. Students will experience a range of fun and interesting areas from the world of computing, such as game programming, web programming, user interface design and computer graphics. These will be explored largely by programming in the Python language.</p>	

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

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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

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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

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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

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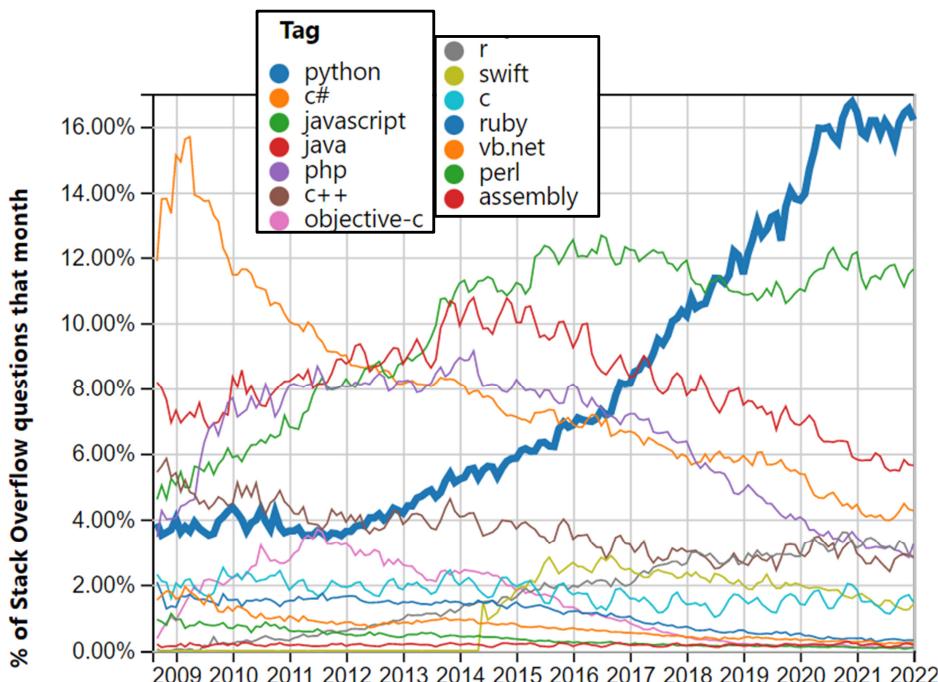
The Most Popular Language

- 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

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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 :)

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Course Instructors 1/2

- Prof. David ROSSITER
 - Email: rossiter@cse.ust.hk
 - Office: room 3554



- David will teach L1, L2, L3 and L4

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Course Instructors 2/2

- Prof. Wilfred NG
 - Email: wilfred@cse.ust.hk
 - Office: room 3503
- Wilfred will teach L5



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Quick Summary

Section	Teaching Times	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

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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

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- Using new illustrations and examples, beyond those on the web site



L1, L2, L3, L4

Python examples
↑

- Teaching using other things instead of slides

← Using course slides

Using course slides →

- Teaching using slides



L5

- Using mainly the examples released on the web site

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

The x axis on the next slide

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

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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

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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

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Main Teaching Assistant 1

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



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Main Teaching Assistant 2

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



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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
- For COMP1021, canvas is not the main web site

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COMP1021 in Canvas



COMP1021 (L1-L5)

2021-22 SPRING
Home
Zoom Meeting
Discussions

COMP1021 (L1-L5) - Introduction to Computer Science ↗

Welcome to COMP1021!

This Canvas site is not the main COMP1021 web site. The main web site is here:

<https://course.cse.ust.hk/comp1021> ↗

Please go there to get all the latest course information. You need to 'turn on' your Computer Science Department (CSD) account before you can get into the web site. Please click [here](#) to see an instruction page which explains how to enable your CSD account.

Using Zoom

COMP1021 is on-line for the start of semester. It may become mixed mode later. We will use the Zoom system (<https://hkust.zoom.us/>). To join the Zoom sessions for this course the best way is to use the links shown in the main web site, see the link above. If

- 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

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The Main Course Web Site

COMP1021 Introduction to Computer Science

Spring 2022

Latest Information

Canvas - Discussions
Canvas - main site
Course textbook
Academic calendar
Jump to week: 1

There won't be any labs in week 1 and week 2

Click on to see the weekly timetable

Week	Lecture 1	Lecture 2	Lab Session
1	So that we can properly synchronize the course, lectures begin next week	So that we can properly synchronize the course, lectures begin next week	There's no labs in week 1
1 FEB S M T W T F S 6 7 8 9 10 11 12	 Course Details [1spp, 4spp, 6spp, 9spp] Please go here to register your CSD account (you may have to wait a day or two after joining the course before doing this) Course outcomes here Getting Started with Python [1spp, 4spp, 6spp, 9spp] Book chapter 3 Examples used in the notes here Interactive examples here Click here for the lecture 1 Zoom links	 Beginning to Program Python [1spp, 4spp, 6spp, 9spp] Book chapter 3 Different ways to access Python here The Virtual Barn here Click here for the lecture 2 Zoom links	 There's no labs in week 1

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

Course Notes

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

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Lecture Video Recordings

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

The screenshot shows the 'Getting Started with Python' section of the course details page. It includes a brief description, links to course outcomes and Python resources, and a button labeled 'Click here for the lecture 1 video recordings'.

Section	Instructor
01	Prof. David Rossiter Click for video
02	Prof. David Rossiter Click for video
03	Prof. David Rossiter Click for video
04	Prof. David Rossiter Click for video
05	Prof. Wilfred Ng Click for video

- Click on a link to access the video

Zoom Links

- You can find links to all the Zoom links in the main course web site, for each lecture

<https://course.cse.ust.hk/comp1021>

The screenshot shows the 'Getting Started with Python' section of the course details page. A yellow box highlights the 'Click here for the lecture 1 Zoom links' button.

Section	Instructor
01	Prof. David Rossiter Click for Zoom link
02	Prof. David Rossiter Click for Zoom link
03	Prof. David Rossiter Click for Zoom link
04	Prof. David Rossiter Click for Zoom link
05	Prof. Wilfred Ng Click for Zoom link

- Click on a link to access the Zoom room

Zoom Links

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

The screenshot shows the Zoom interface with the 'Upcoming Meetings' tab selected. It lists three meetings for COMP1021 L1-L5, each with a 'Join' and 'Invitation' button.

Start Time	Topic	Meeting ID	Action
Today (Recurring) 1:30 PM	COMP1021 L3 Prof. David Rossiter	978 6586 878 3	Join Invitation
Today (Recurring) 5:00 PM	COMP1021 L2 Prof. David Rossiter	987 2915 389 1	Join Invitation
Tue, Feb 8 (Recurring) 10:30 AM	COMP1021 L1 Prof. David Rossiter	976 5975 965 2	Join Invitation

- 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



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

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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 second lab will be released for you to do in week 4 – it will be a hand-in lab!

February											
1		1	2	3	4	5					
1	6	7	8	9	10	11	12				
2	13	14	15	16	17	18	19				
3	20	21	22	23	24	25	26				
4	27	28									

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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

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Releasing Course Material

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

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- 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							
	S	M	T	W	T	F	S
1			1	2	3	4	5
1		6	7	8	9	10	11
2	13	14	15	16	17	18	19
3	20	21	22	23	24	25	26
4	27	28					

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

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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

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		

- 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

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April Schedule

S	M	T	W	T	F	S
8					1	2
9	3	4	5	6		
10	10	11	12	13	14	15
11	17	18	19	20	21	22
	24	25	26	27	28	29
	30					

- 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 lecture 1 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)

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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

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May Schedule

S	M	T	W	T	F	S
12	1	2	3	4	5	6
13	8	9	10	11	12	13
	15	16	17	18	19	20
	22	23	24	25	26	27
	29	30	31			

- 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

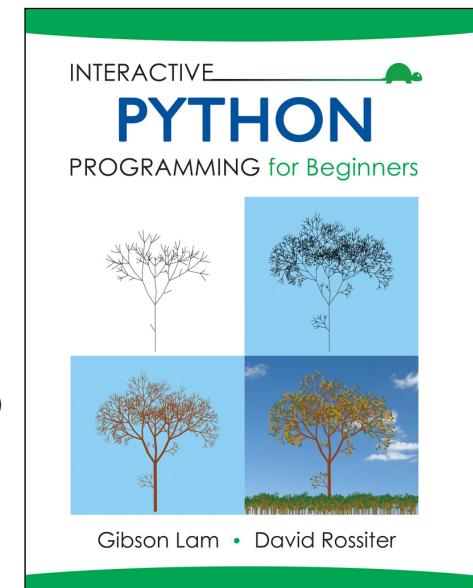
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Interactive Python Programming for Beginners

- 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”

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!

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)

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

- Lectures
 - 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 lab projects will be handed in for marking

$3 \times 12\% = 36\%$ /
 $3 \times 14\% = 42\%$
- Midterm exam
 - An open book/open notes midterm exam
 - More details will be released later in the course

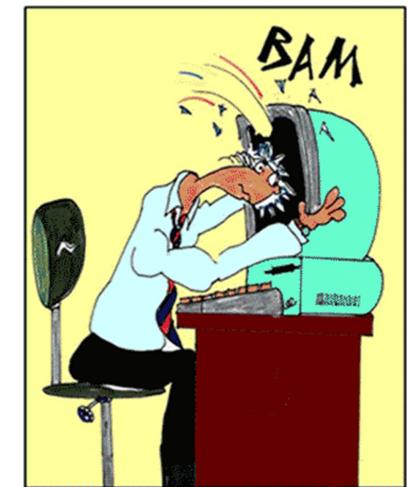
**24%/
0%**
- Final exam
 - This will be another open book/notes exam

**40%/
58%**

Worth:

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!



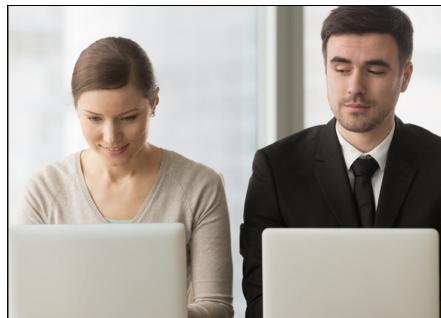
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Cheating Policy

- 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!



Not secure | ugadmin.ust.hk/integrity/student-1.html

學術誠信

Academic Integrity

Information for Students

The University is a community designed for scholarship — for learning, teaching and research. In a community of scholars, academic integrity and honesty are critical values.

Exams, homework, papers and other kinds of assessments are essential to the learning process. Honesty and integrity are central to academic work. Because of this, you are committed as a student to an [Academic Honor Code](#).

As set out in the Academic Honor Code

- You must observe and uphold the highest standards of academic integrity and honesty in all the work you do throughout your program of study.
- As members of the University community, you have the responsibility to help maintain the academic reputation of HKUST in its academic endeavors.
- Sanctions will be imposed if you are found to have violated the regulations governing academic integrity and honesty.

Get more information on

- [Avoiding Pressures that Lead to Cheating](#)
- [What Is Academic Misconduct](#)
- [How to Avoid Plagiarism & Copying](#)
- [What Happens if You Are Caught Cheating](#)

<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

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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

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Your UST 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
- This will give you access to the course web site outside HKUST

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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

A screenshot of a web browser showing the HKUST Central Authentication Service login page. The page has a yellow header with the HKUST logo and the text "THE HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY". Below the header, there is a section titled "HKUST Central Authentication Service" with the instruction "To access the protected service, please enter your ITSC network account username and password". There are two input fields: "Username:" and "Password:", both with placeholder text. To the right of the password field is a yellow padlock icon. At the bottom of the form are two checkboxes: "Warn me before logging me into other sites." and "LOGIN clear".

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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 (12 chars or more)
Retype Password
Set the password of:
 Unix account at Faculty/PC 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 should see something like this:

- This system is not operated by us, it is all handled by *cssystem@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

Password Changing Result

Password changing for jimw at 'Unix account for UG' **COMPLETED**.

You UNIX password will be activated in **5** minutes. 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**.

- *cssystem@cse.ust.hk*