

# IT5001 SOFTWARE DEV. FUNDAMENTALS

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# INFORMATION ABOUT THIS COURSE

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# Your Lecturer

- ▶ CHENG, Ho Lun, Alan, 鄭浩璘
  - Hong Kong
  - UIUC, Duke (USA)
- ▶ Hobbies:
  - Teaching
  - 3G: Graphics, Geometry, Games
  - Animation, anime, comics, movies, etc.
- ▶ Quote:  
“Code, pray, love”



# ABOUT THIS COURSE

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# Hardwork

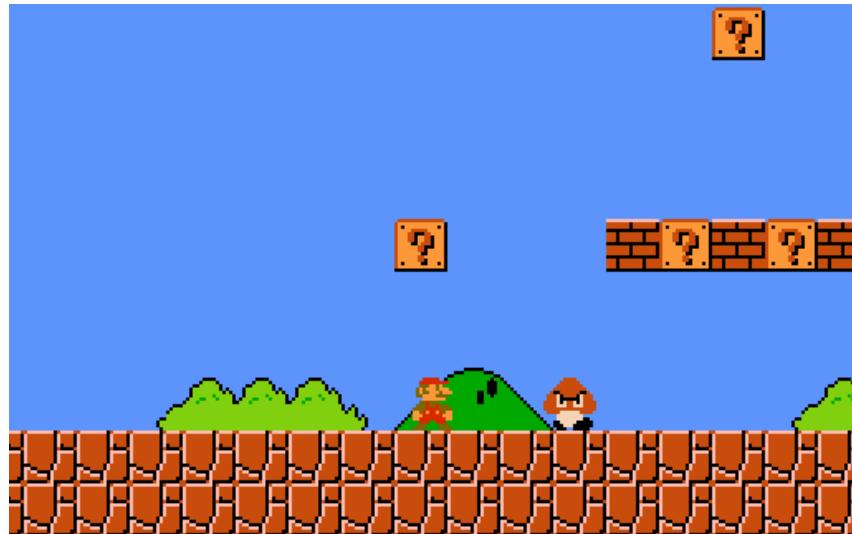


# This Course      vs      COS2000



# Culinary Degree      vs      Cooking Class

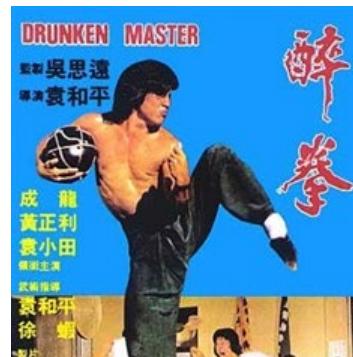
# This Course vs COS2000



<https://youtu.be/9GP8yg-x1Kw?t=954>

# How to be a good programmer

- What is the different between old and new fighting movies?



# Assessments

- It's normal NOT to have full marks
- It is not high school, or JC, or secondary school
  - ~~Teacher told you what to and you finished them, you got full mark~~
- University emphasis on **generating** knowledge
  - BY STUDENTS THEMSELVES
  - It is not copy-and-paste



## NUSWhispers

August 28 at 10:28 AM · 

it kinda pisses me off that the computing lecturer assumes that we know a lot of the things and is more concerned in finishing the lesson plan within that hour than whether the students understand what he is saying

#51782: <https://www.nuswhispers.com/confession/51782>



3

4 Comments 1 Share

 Like

 Comment

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Most Relevant ▾



Write a comment...



**Ben Leong** Which lecturer? If you don't understand, just put up your hand and ASK lah.

Like · Reply · 7h



**Ng Xin Zhao** If you don't know then raise hand, ask questions. Do read up what you can before hand, and follow the instructions, does the lecturer expects you to read up before class? Or had he assumed everyone is at his pace since no one asked him to slow down or ask questions. But don't expect spoon feeding.

Like · Reply · 2d



**Ivan Chew** u are supposed to read up (think, try out) beforehand and patch ur knowledge in lecture not go into lecture expecting to be taught as in primary/sec school also, without practice, you can't really learn stuff in computing (aside from the theoretical / definitions part)

Like · Reply · 2d · Edited



**Daniel Kwang** It's only week 3 and you're complaining? You have yet to see what the whole module have prepared for you. However, it's still not too late for you to catch up.

Like · Reply · 2d

# Grades (In general)

- F or D
  - You didn't do anything
  - You barely did something16.7%
- C
  - Somehow you know how to code13.6%
- B
  - You understand and know how to solve problem with coding
  - *You can solve Kattis problems of 2.0+ and above*34.8%
- A
  - You did more than what is taught
  - *You can solve Kattis problems of 3.0+ and above*34.9%
- A+
  - *You can solve Kattis problems of 4.0+ and above*

# We are NOT graded by a bell curve!!!

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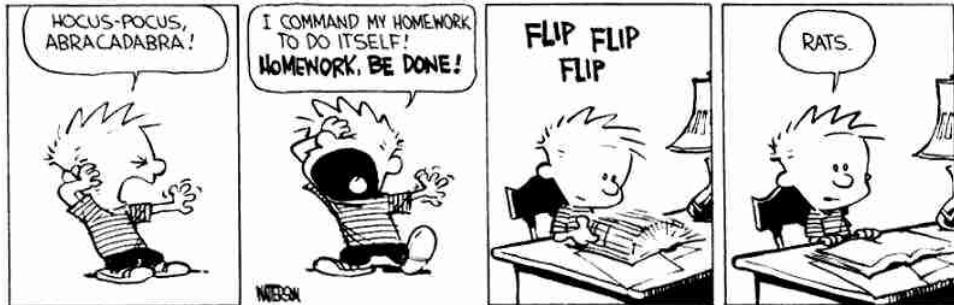
# Course Structure

- Lecture
  - Wed
  - Focus: Teaching, overview
- Tutorial Sessions
  - Wed
  - Focus: Practice, details
  - Tutorial Starts at **WEEK 2**

# CA

- Assignment 20%
- Trainings 0%
  - Cousremology + Kattis
- PEs
  - Mock PE 1%
  - PE 18%
- One Mock Quiz 1%
- Midterm 20%
- Final Assessment 40%

- Subject to 5% adjustment
- All Assessments are F2F



# Assessments

- Only **one physical cheat sheet** on the table
- You cannot access any other materials, including those stored in your computer.
- PE:
  - Only IDLE

# Details: Assignment

- Homework are all distributed, submitted, graded on
  - Coursemology (Only **one chance to un-submit** in one semester)
- Total Seven of them
- **Late** policy:
  - One day late 33% discount
  - Two days late 66% discount
  - Three or more days late, zero
- No excuses for assignments except long term hospitalization

**WARNING**

# Plagiarism

The act of presenting another's work or idea that **as your own.**





# NUS students punished for cheating on take-home exam

PUBLISHED JUN 16, 2020, 5:00 AM SGT



Wong Yang

A handful of National University of Singapore examination they were allowed to take home in results for the module were released.

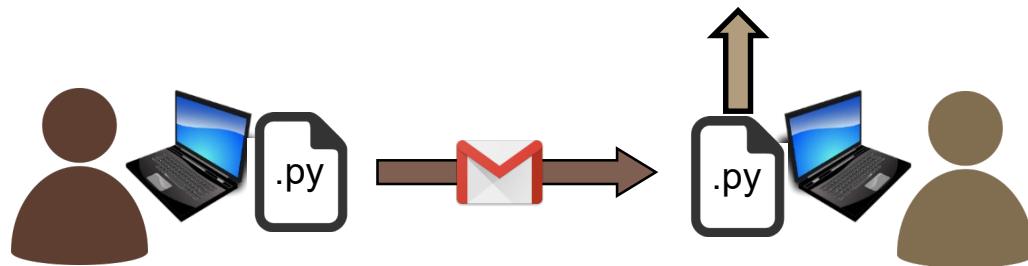
On top of receiving zero marks for the exam, the satisfactory/unsatisfactory option for the mod

The option to write off grades for up to 10 mod was made available to NUS students in the light pandemic.

"I talked to some seniors and they said not to confess because it was just a scare tactic. But I was scared and worried that if I didn't confess, it would be worse later on. "I'll never cheat again, that is for sure."

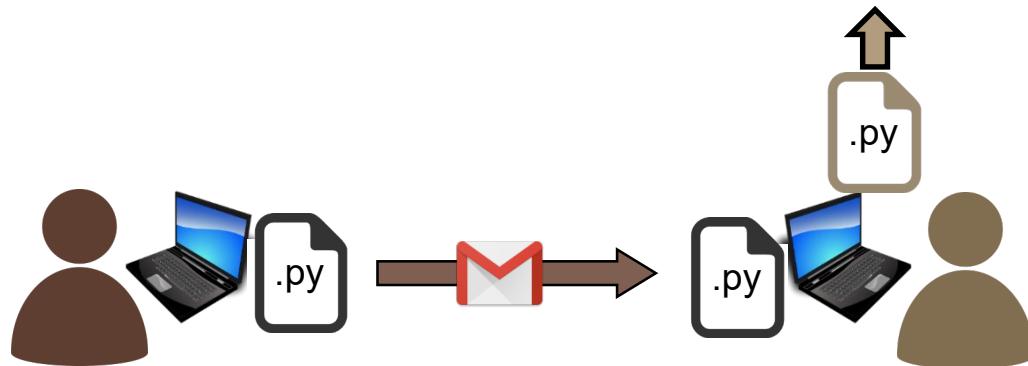
# Plagiarism #1

Direct copying



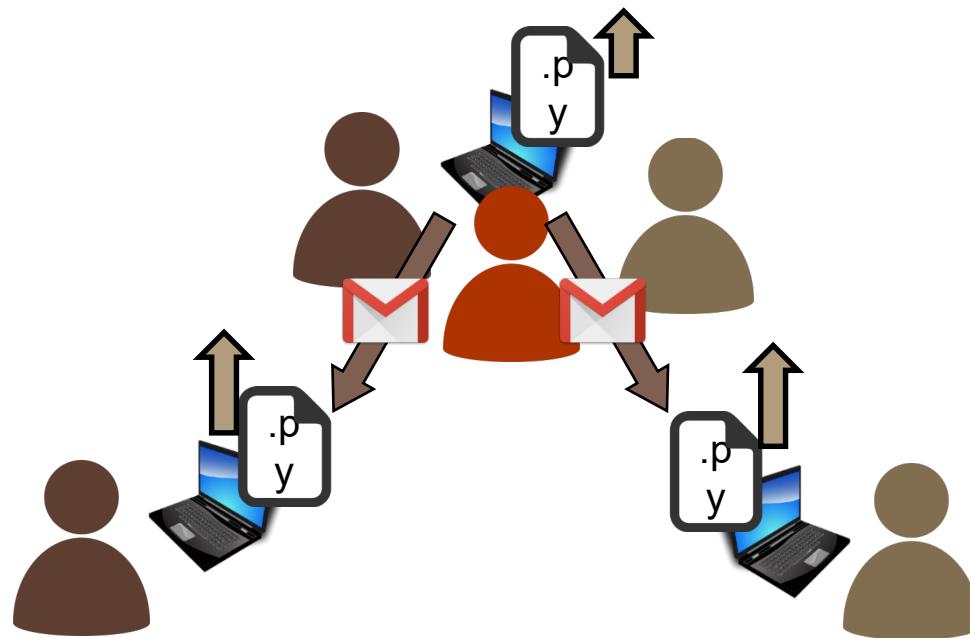
# Plagiarism #2

“Referencing”



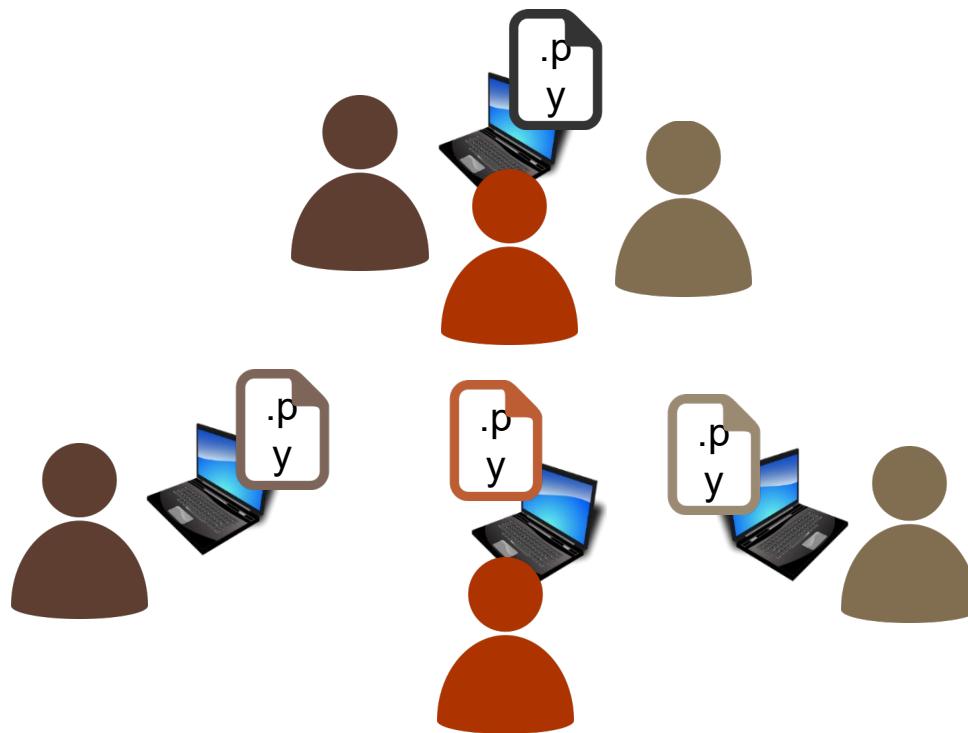
# Plagiarism #3

“Discussion”



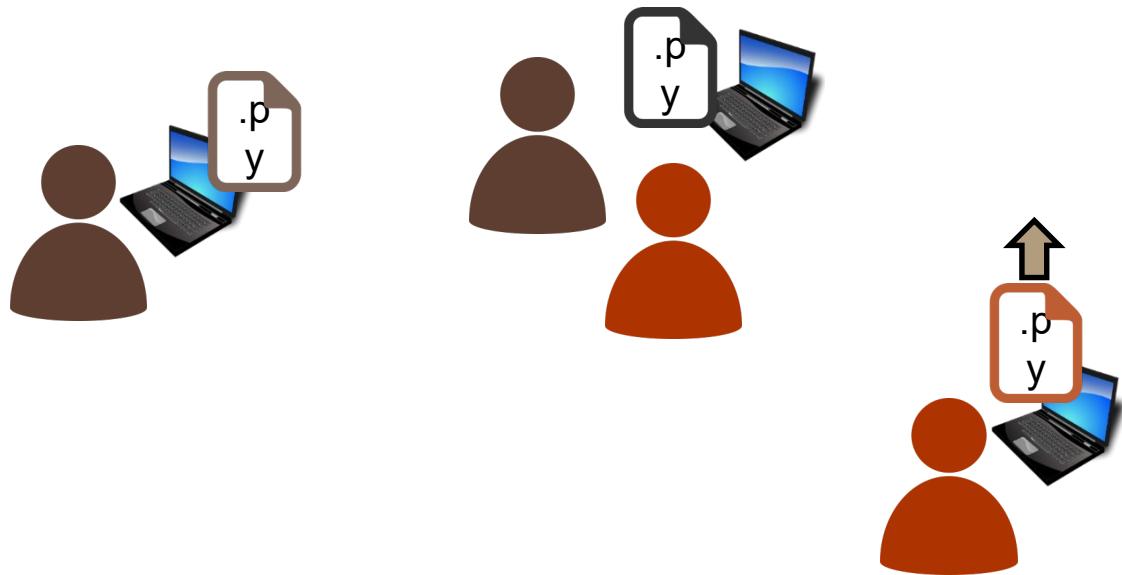
# Not Plagiarism

Discussion (the proper way)



# Not Plagiarism

Assistance



# Some Plagiarism Techniques (PE)

- Level 0
  - Just copy
- Level 1
  - Add comments
  - Rename variables
  - Add useless lines/statements
  - Shuffle the orders of statements/functions
- Level 2
  - Copy/extract some part of the function to make another function
  - etc.
- Level 3
  - Etc., etc.



# Conclusion

The knowledge you  
need to know how to  
cheat and escape from  
the plagiarism checker



IT5001 Course  
materials

<https://youtu.be/hMloyp6NI4E?t=69>



**WARNING**

Both copying and being copied  
will be punished in the same way

# Details: PEs

- Practical exams are programming tests
- Two hours
- You need to use the lab machines
  - Meaning only using IDLE or Glide

# Make-up PEs, Midterm

- You are qualified for make-ups if
  - Hospitalization or serious illness with MC by a doctor
  - NS (for guys)
  - You have informed us at least a week before the assessment
- Any thing other than the above are not qualified, some unqualified examples:
  - Oversea Travel, both **business** and personal (except the above)
  - Working or personal commitments
  - Other courses
  - ~~Representing halls or clubs, including with letters from hall officials~~
- There will be no more make-up for make-ups.
- By NUS rule, once you started an assessment of any kind, you cannot do any make-ups.

# Software Tools in This Course

- IDLE (app)
  - To code and run Python
- **Coursemology (website)**
  - All lecture/tutorial materials, including webcasts
  - Receiving, testing and submission of your assignments
- Polleverywhere (website)
  - For real time interaction in lectures
- Kattis
  - For extra trainings
- You will receive emails invitations for the coursemology

# Feedback

Dear Prof Alan,

... as a student without much background in computing, but a strong desire to learn more. I found this module to be very useful as it consolidated key computing topics and concepts. I looked forward to studying the topics in depth, and I am glad we covered object-oriented programming.

The weekly assignments I felt played an important role in my learning. The assignments themselves were very interesting and enriching, especially the last one on OOP where we got to work with and experience larger scale programs.

After this course, I attended a Machine Learning Workshop and I can fully understand all the ML contents!