# COMP S350F

## **Software Engineering**

**Course Introduction** 



#### **Instructors:**

## Dr Jeff Au Yeung

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Consultation hours: Appointment by e-mail

## **About Jeff Au Yeung**

- Graduated from HKUST (BEng, MPhil, PhD)
- Major in Electronic and Computer Engineering
- Programme Leader of Computer Science, Internet Technology
- Taught in HKUST(6.5 years),
   HKUSPACE CC (8.5 years), now
   HKMU for 2 years





Jeff and his lovely family

#### **Course Aims:**

**5** Credits, **Autumn** Term

**Mode of delivery: Face-to-Face** 

Face-to-Face Classes: Wed 11:00-13:00

Fri 16:00-18:00

No exam

Please check OLE for the most update information



## **Course Aims:**

This course aims to introduce the concepts and applications of software engineering, explain their potential impacts on software productivity, quality assurance, cost and time to market during different software life cycles. Students will learn practical development skills in software design, implementation, testing and maintenance.

After completing this course, you should be able to ....

- 1. Explain software engineering concepts and activities.
- 2. Create software development project artifacts (e.g. software requirements specification / SRS).
- 3. Design software systems to meet user requirements.
- 4. Select a suitable software development process based on requirements and resources.
- 5. Apply quality assurance methods (e.g. testing and inspection).
- 6. Make ethical decisions playing the role of a software engineer.

## **Marking Scheme:**

(OCAS) Assignments (multiple choices) 15 Questions for each chapter (9 chapters) (5 Questions did in classes, 5 Questions as homework)	30%
(OCAS) Test (face to face, in-class) (In-class, multiple choices)	20%
(OES) Group Project	50%

## No Final examination!

## Course Project (50%):

#### 1. Topics

 The School of Science and Technology would like build a system to keep the record of the students. The system allow teachers to view and update a students' academic record. It also allow students to view their own academic record and update their personal information.

#### 2. Some details

- The system can be implemented in any programming language (e.g. Python, C, C++, Java, JavaScript etc).
- The user interface can be just command prompt or with GUI.
- The group can design the actual function in the requirement phase.

## Course Project (50%):

- 3. Document need to submit (15%)
- Project Requirement Document
- System Modeling
- Software Testing Plan
- 4. Implementation (15%)
- Code Submission (All the code need to be stored in a GitHub)
- Testing Report
- 5. Project Presentation (15%)
- 10 minutes for each group (during the classes in the last 2 weeks)

## Course Project (50%):

## 6. Client feedback (5%)

 Each group will also be assigned as the client of the other group. You have to provide feedback to the software developer.

## **Course Contents:**

- 1. Introduction to software engineering
- 2. Software Processes
- 3. Agile software development
- 4. Requirement engineering
- 5. System modeling
- 6. Architectural design
- 7. Design and Implementation
- 8. Software testing
- 9. Software evolution