

CITY UNIVERSITY OF HONG KONG

Information on Courses

1. **Course Title:**

Software Quality Engineering

2. **Course Code:**

CS5348

3. **Course Aims & Objectives:**

This course aims to equip students with in-depth knowledge and techniques in software quality engineering and management. It prepares students to develop high quality software using proven techniques and established standards in software quality assurance and assessment.

Upon completion of this course, the student should be able to:

1. demonstrate a critical understanding of the quality aspects of software systems and factors affecting such quality;
2. develop and apply a working knowledge of good management and engineering practices for the production of high quality software;
3. develop an IEEE standard Software Quality Assurance Plan;
4. understand the role of the various quality systems related to software development, such as Capability Maturity Model (CMM) and ISO9000.

4. **Units:** 3

5. **Level:** P5

6. **Medium of Instruction:** English

7. **Keyword Syllabus:** (*within 100 words*)

Software quality models. Quality factors and attributes. Software management. Software process models. Software project management. Configuration management. Quality engineering. Quality assurance activities and practices. Software measurement. Project, process and product metrics. Software quality metrics. Cost estimation. Capability Maturity Model. ISO standards and certification.

8. **Teaching pattern:**

Duration of course: 1 semester

Suggested lecture/tutorial/laboratory mix: 2 hrs. lecture; 1 hr. tutorial.

9. Assessment pattern:

Examination duration: 2 hours

Percentage of coursework, examination, etc.: 30% CW; 70% Exam

Grading pattern: Standard (A+AA-...F)

For a student to pass the course, at least 30% of the maximum mark for the examination must be obtained.

10. Pre-requisites: *(please quote course code & title)*

CS5351 Software Engineering or equivalent

11. Pre-cursor: *(please quote course code & title)*

Nil

12. Equivalent Courses: *(please quote course code & title)*

Nil