

THE UNIVERSITY OF HONG KONG

Bachelor of Engineering Degree in Industrial Engineering and Technology Management

Credit Unit Statement

The Industrial Engineering and Technology Management curriculum offers five types of courses, namely introductory courses, advanced courses, projects, engineering training and internship. The majority of courses are 6-credit courses which are taught through lectures, tutorials, and laboratory sessions aims at equipping students with professional skills and knowledge in mathematics and engineering. The programme also has one 6-credit course Industrial systems integration and one 12-credit course Final Year Project as Capstone Experience. 120 hours of student learning activity (including both contact hours and all other forms of student learning activity) will be the norm for a 6-credit course, whereas 240 hours of student learning activity will be the norm for a 12-credit course, and the contact hours and expected learning outcomes for different groups of courses vary according to the learning modes adopted. Most courses are assessed through practical work and continuous assessment (10% - 60%) and written examination (40% - 90%), with a few courses to be assessed through 100% continuous assessment. The five categories of industrial engineering and technology management courses are summarized as follows:

Introductory Courses (6 credits)

These courses aim at providing students with a solid foundation in mathematics, engineering, communication skills and complementary studies including economics, management, legal environment, engineering ethics, etc.

The total contact hours of introductory courses are normally 52 hours consist of a combination of lectures, tutorials and laboratories. The assessment is generally based on assignments, quizzes, course projects, mid-term tests, oral presentation, practical work, laboratory reports (totaling 1,000 to 2,000 words) and written examination. The written examination is normally 3 hours.

The number of and level of assignments, mathematical calculations, course projects and quizzes shall be appropriate for assessing the learning outcome of the students but in all cases written output shall not exceed 3,000 words (laboratory reports not included).

Advanced Courses (6 credits)

These courses aim at providing student with a breadth of knowledge in a broad range of technical courses, in-depth knowledge in selective subjects with special emphasis on topics related to electronic engineering, effective communication skills and complementary studies including economics, management, legal environment, engineering ethics, etc.

The total contact hours of advanced courses are normally 52 hours consist of a combination of lectures, tutorials and laboratories. The assessment is generally based on assignments, quizzes, course projects, mid-term tests, oral presentation, practical work, laboratory reports (totaling 1,000 to 2,000 words) and written examination. The written examination is normally 3 hours.

The number of and level of assignments, mathematical calculations, course projects and quizzes shall be appropriate for assessing the learning outcome of the students but in all cases written output shall not exceed 3,000 words (laboratory reports not included).

Projects (6 or 12 credits)

Project courses are under the category of Capstone Experience and may consist of individual or group project over a period of one year to enable students to integrate and consolidate the knowledge gained in various courses, and apply the knowledge to an assigned project. There are two types of projects: Industrial systems integration and Final Year Project, and students are required to take both of them in their final year of study.

The Industrial systems integration (6 credits) consists of 30-39 hours of timetable work, comprising lectures (4-6 hours) and laboratories (26-33 hours). Students will need to spend additional time in the laboratory beyond the timetabled hours to complete their practical implementation. For the Final Year Project (12 credits), students are generally expected to spend one-fifth of their work hours on the project over a period of two semesters. The assessment of these courses are based on project presentations and written reports totaling 1,500-3,000 words.

Engineering Training (6 credits)

The engineering training provides students with hands-on workshop training aimed at reinforcing their practical engineering skills. The training will be offered in the summer semester of their second year of study and consists of 150 hours of lectures, tutorials and practice sessions. The assessment is based on continuous assessment and the student's report totaling approximately 1,000 words.

Internship (6 credits)

The internship aims at immersing students into work environment where their practical engineering knowledge can be reinforced in practical situations. The internship will be offered in the summer semester of students' third year of study, and consists of a minimum of 4 weeks of placement in an industrial organization with an engineering environment. Alternatively, students are given the option of joining a one-year Integrated Study-Work Programme on a full-time basis to work in the industry between their third and final year of studies. Students are required to submit a training report after the summer internship or the integrated study-work placement. The assessment is based on the employer's feedback and the training report totaling not more than 1,000 words.

Faculty of Engineering

July 2012