THE UNIVERSITY OF HONG KONG

Bachelor of Engineering in Data Science and Engineering

Credit Unit Statement

The curriculum offers four types of courses, namely introductory courses, advanced courses, projects and internship, aiming at equipping students with professional skills and knowledge in data science and engineering. *The total study load of the professional core (114 credits of courses) is in the range of 2,280 to 3,420 hours. All courses carry 6 credits and are taught through mixed learning modes, including lectures, tutorials, laboratory sessions and case study. The programme also includes a 6-credit Project as Capstone Experience and a non-credit bearing Internship. A 6-credit course has around 120-180 hours of student learning activities (including both contact hours and all other form of student learning activities). The contact hours and expected learning outcomes for different groups of courses vary according to the learning modes adopted. Most of the courses are assessed by a combination of coursework (including performance in tutorials / presentations) and examination. The four categories of courses are summarized as follows:

Introductory course (6 credits)

These courses aim at providing students with a solid foundation in data science, computing, mathematics, general engineering, communication skills and complementary studies.

The total contact hours ranging from 39 to 52 hours consists of a combination of lectures (totaling 26 to 39 hours) and tutorials/workshops/laboratory sessions (totaling 13 to 26 hours). The assessment is generally based on problem-solving type assignments, programming exercises, course projects, programming projects, mid-term/written quizzes, individual and group presentations, papers, performance in tutorial / class discussion and written examination. Written output shall not exceed 3,000-5,000 words.   Introductory Courses are assessed by a combination of continuous assessment (25%-100%) and examination (0%-75%).

Advanced course (6 credits)

These courses aim at providing students with in-depth knowledge in a broad range of topics in data science and engineering.

The total contact hours ranging from 39 to 52 hours consists of a combination of lectures (totaling 26 to 39 hours) and tutorials/workshops/laboratory sessions (totaling 13 to 26 hours). The assessment is generally based on problem-solving type assignments, programming exercises, course projects, programming projects, mid-term/written quizzes, individual and group presentations, papers, performance in tutorial / class discussion and written examination. Written output shall not exceed 3,000-5,000 words (laboratory reports not included). Advanced Courses are assessed by a combination of continuous assessment (25%-70%) and examination (30%- 75%) except hands-on courses which are assessed by 100% continuous assessment (namely COMP3362, SOWK3136 and STAT3612).

Project (6 credits)

Project courses (Final Year Project or Data Science in Discipline Project) are under the category of Capstone Experience and aim at training students to integrate and consolidate the knowledge learnt in previous courses. The total contact hours range from 13 to 20 hours. Students may work individually or in groups and are generally expected to spend 120 hours on their project in their final year of study. The assessment is 100% in-course and is based on project presentations and written reports totaling 500-1,500 words (for interim report) and 1,500-3,000 words (for final report).

Internship (non-credit bearing)

The internship aims at immersing students into a work environment where their technical knowledge can be reinforced in applied situations. It consists of a minimum of 4 weeks of placement in an industrial organization. Students are required to submit a training report after the internship. The assessment is based on the employer's feedback and the training report totaling not more than 1,000 words.

Alternatively, students are given the option of joining the Integrated Study-Work Programme on a full-time basis to work in the industry between their third and final years of studies.

*Subject to the planned accreditation from the ABET for the 2026-27 Review Cycle.

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