

Credit Unit Statement MSc in the field of Applied Geosciences Degree Curriculum

The Faculty of Science Master of Science is a post-graduate degree with three fields, of which Applied Geosciences is one. The MSc in Applied Geosciences was established in 1998 as a multi-theme field and its credit requirement was set at 66 credits in 2003-4. With effect from 2019-20 the credit requirement of the Engineering Geology with the HKIE Approved Courses Theme will be 69 credits. The credit requirement of the other themes remains unchanged at 66 credits. Learning hours will amount to approximately 1440 hours and 1500 hours for the Engineering Geology with the HKIE Approved Courses Theme, including about 360 hours for the Project, and contact hours will be about 400 hours for 66 credits and 415 for 69 credits. Students are expected to work year-round and teaching is conducted during Reading Weeks and in the summer semester.

1. General guidelines

(a) A typical course involves about 20 learning hours per credit.

(b) Learning hours include contact hours and time for self-study, assignments and assessment. Assessment means evaluation of academic performance. Contact hours are those spent with a teacher, generally in lectures and field classes, not including time spent with a teacher in assessment. Self-study hours are those spent in study without a teacher present. Self-study hours do not include time spent on assignments, which are tasks given by a teacher. Assessment hours include time spent in written examinations and in associated preparation.

(c) A 6-credit lecture-based course generally has around 36 lecture hours and discussion or practice sessions are included within the 36 lecture hours.

(d) For project courses, students are expected to devote about 120 learning hours to a 6-credit course and 240 hours to a 12-credit course.

(e) Typically about 30% of the learning hours in a course are contact hours although for some courses contact hours may amount to as much as about 60% of the learning hours.

2. Types of course in the MSc in Applied Geosciences Degree Curriculum

The curriculum consists of five main types of course, based on learning activities.

(a) Lecture-based courses (3-credit and 6-credit): all courses except those listed under (b) to (e)

Contact hours for a 6-credit lecture-based course: about 36 hours of lectures in about 12 sessions including discussion and any laboratory or practice or field sessions. Assessment is by a combination of written examination (normally 70%) and continuous assessment. Continuous assessment tasks include written assignments such as essays, descriptions, calculations, drawings, etc. Typically there will be 4 or 5 such assignments each of about 600-800 words or one A3-size drawing or one to three laboratory sheets or two pages of calculations or equivalent. The contact hours and number of assignments for 3-credit lecture-based courses are about half of those for 6-credit lecture-based courses.

(b) Lecture with field class courses (6-credits) GEOS7011, GEOS7033

Contact hours for a 6-credit lecture with field class course: about 20 hours of lectures including any discussion sessions and any tutorials and about 25 hours of field classes. Assessment is by a combination of written examination (normally 50%) and continuous assessment. The latter typically comprises (a) two field reports each of 1000-1500 words plus accompanying graphics (e.g. field

sketches, maps, cross-sections, block diagrams, photographs), and (b) one written assignment of 1500-2500 words.

(c) Field class courses (3-credits) GEOS7021, GEOS8021

Contact hours for a 3-credit field class course: about 25 hours of field classes and GEOS7021 also has about 10 hours of lectures. Assessment is by continuous assessment (100%), marked on a Pass/Fail basis. Continuous assessment tasks include written assignments such as field sheets, notebook, narrative accounts, geological map and other geological records. Typically there will be one to three field work reports with a minimum of 3000 words (total) and associated field sheets and/or field notebook, and one A3- or A4-size final field map.

(d) Project courses (6 credits and 12 credits) GEOS7020 Project Part I, GEOS8020 Project Part II

Contact hours: GEOS7020 typically 20 hours; GEOS8020 typically 10 hours. Assessment is by continuous assessment (100%). A self-directed study of a problem in applied geosciences written up in a minimum 10,000-word report. Students make two oral presentations, of their project plan and their preliminary results. Assessment is based on the approach, written project plan (500 words), and oral presentation of the project plan (GEOS7020) and the final report (10,000 words) and oral presentation of the preliminary results (GEOS8020).

(e) Student-led seminars course (3 credits) GEOS8003

Contact hours for a 3-credit student-led seminars course: about 18 hours of seminars and discussion in about 6 sessions. Teams of students study reading material outside the classroom, collaborate in preparing presentations and make oral presentations to the class. Student groups analyse presentations and engage in discussion. Assessment is based on written assignments (70%) and oral presentation performance (30%), assessed using a scorecard. The written assignments will each be of about 800 words.

The project courses and the seminars course constitute the capstone experience of the MSc in Applied Geosciences Degree Curriculum.

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