The University of Hong Kong
Department of Earth Sciences

Continuing Professional Development (CPD) Courses from the MSc in Applied Geosciences

SEPTEMBER TO DECEMBER 2020

(courses will be provided online or face-to-face depending on circumstances)

GEOS7010 Geology principles and practice (approximately 18 hours) Fees $12,000
Taught by Dr Samuel Ng
(Wednesdays 30 September to 25 November 2020, 7:00pm - 9:45pm, bi-weekly, 5 meetings)

A review of fundamental concepts in geosciences, including earth and geological processes, surface processes, minerals and rocks, geological structures and geological map interpretation. The course also introduces the rocks and geological formations of Hong Kong. This course is the pre-requisite for course GEOS7033 Geology of Hong Kong to be offered in January to April 2021.

GEOS7011 Advanced geology of Hong Kong (approximately 36 hours) Fees $12,000
Taught by Dr Jason Ali and Prof Rod Sewell
(2 September to 25 November 2020, 7:00pm - 9:45pm, 9 Wednesdays meetings + 3 Saturdays fieldtrips)

This course offers geologists the opportunity to gain in-depth knowledge of the geology of Hong Kong. Topics include volcanic and granitic rocks, sedimentary and metamorphic rocks, weathering processes, surficial geology, structural geology, unresolved problems/new insights into the geology of Hong Kong; petrographic study of Hong Kong’s igneous and metamorphic rocks; examination of the Hong Kong geological maps. Fieldtrips during the weekends are required as part of the course.

Pre-requisite: a bachelor degree in Geology or Earth Sciences.

GEOS7015 Rock mechanics (approximately 18 hours) Fees $6000 HKIE
Taught by Dr Louis NY Wong and Ir Ivan Ho, GEO
(Tuesdays 20 October to 24 November 2020, 7:00pm – 9:45pm, 6 meetings)

The course introduces the basic concepts of rock mechanics used in geotechnical practice. Topics include index properties, strength and deformability of intact rock; distribution and measurement of in-situ stresses; and shear strength of discontinuities in rock masses. Pre-requisite: school science to HK A-Level or DSE or equivalent.

GEOS7016 Soil mechanics (approximately 18 hours) Fees $6000 HKIE
Taught by Prof Philip Chung, GEO and Ir Florence Ko, GEO
(Tuesdays 1 September to 6 October 2020, 7:00pm – 9:45pm, 6 meetings)

An examination of the basic soil mechanics theory used in geotechnical practice. The course reviews phase relationships, soil classification, compaction, fluid flow and effective stress concepts; and provides a more detailed analysis of elasticity, shear strength and consolidation. Pre-requisite: school science to HK A-Level or DSE or equivalent.

GEOS8101 Engineering geology and geotechnical design (approximately 36 hours) Fees $12,000 HKIE
Taught by Prof Philip Chung, GEO, Ir Vickie Kong, GEO and Prof Andrew Malone
(Mondays 7 September to 30 November 2020, 7:00pm – 9:45pm, 12 meetings)

An examination of civil engineering design methodology and the application of soil mechanics theory and empiricism in geotechnical design. Emphasis is given to soil slopes and embankments, earth pressure and retaining structures and shallow and deep foundations. Pre-requisite: GEOS7016 Soil Mechanics or equivalent.

GEOS8104 Natural hillside landslide and hazard studies (approximately 18 hours) Fees $6000
Taught by Jonathan Hart, GeoRisk Solutions and Prof Dick Martin, Geoconsult HK
(Thursdays 22 October to 26 November 2020, 7:00 – 9:45pm, 6 meetings)

The contents of this course will include most of the following topics: classification of landslides; Hong Kong terminology, examples of natural terrain landslides and documentary sources of information; hillslope evolution, geomorphological principles and Quaternary geology of Hong Kong; hillslope hydrology, modes of groundwater flow, runoff and infiltration, piping; hydrological and morphological conditions for initiation of shallow landslides in regolith; engineering geological and geomorphological mapping; landforms and geomorphological processes; landslide hazard assessment including landslide susceptibility and the design event approach. Pre-requisite: a bachelor degree in Geology or Earth Sciences.

HKIE Courses approved by HKIE. These are some of the courses which a graduate in Earth Sciences or Geology would need to meet the entry requirements of the Hong Kong Institution of Engineers in the Geotechnical Discipline.

We might also offer course GEOS8206 Mathematics II for those with the pre-requisite course GEOS8205 Mathematics I, see https://www.earthsciences.hku.hk/f/upload/940/MSc%20Course%20Outlines%202019-20.pdf

For queries please contact Miss Erica Lee erica25@hku.hk or Prof AW Malone awmalone@hku.hk
Application Form for Enrolment in CPD Courses from the MSc in Applied Geosciences
SEPTEMBER TO DECEMBER 2020

Apply by 24 August 2020

<table>
<thead>
<tr>
<th>Courses</th>
<th>credits</th>
<th>Fees</th>
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<tbody>
<tr>
<td>GEOS7010 Geology principles and practice</td>
<td>6 credits</td>
<td>HK$12,000</td>
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Family Name: ____________________  Given names: __________________________________________
Postal Address: ________________________________________________________________

Phone numbers: Day __________________ Home/Mobile ______________________ Fax: ____________

Personal email: ESSENTIAL __________________________________________________________
Current position: __________________ Company: __________________________________________
First Degree field of study: __________________________________________ Other Degrees __________________
Course(s) applied for: ______________________________________________________________

Total fees: HK$ __________________

Signature: ______________________ Date: ______________________

How did you find out about these CPD courses? __________________________________________

A student must attend at least 80% of the meetings to receive a Certificate of Attendance. A Certificate of Completion is awarded to students who also successfully complete the coursework assessment and pass the examination.

Please return a completed application form and your cheque, payable to “The University of Hong Kong”, to the following address:

Director, MSc in Applied Geosciences
Department of Earth Sciences
The University of Hong Kong
Pokfulam Road
Hong Kong

You will be notified by email regarding approval of application and meeting dates and venue.

These courses will qualify for advanced standing in the MSc in Applied Geosciences.