HKU Summer Institute 2017

Undergraduate Programmes

<table>
<tr><th colspan="2">Course Details</th></tr>
<tr><td>Course Code</td><td>MATH1641</td></tr>
<tr><td>Course Title</td><td>Mathematical Laboratory and Modeling</td></tr>
<tr><td>Credit Bearing Programme</td><td>6 credits</td></tr>
<tr><td>Course Description</td><td>This course introduces a powerful and free computer software Scilab for scientific research. The programming language will be taught via a number of mathematical models in Physics, Chemistry, Biology, Ecology, Statistics and Management. Some basic and important techniques in Calculus and Linear Algebra will also be covered.</td></tr>
<tr><td>Course Outline</td><td>In this course, we shall

1. introduce fundamental programming techniques in SciLab,
2. demonstrate how mathematical models are formulated, and
3. how to interpret these models with the help of computer.</td></tr>
<tr><td>Learning Outcomes</td><td>On successful completion of this course, students should be able to:

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<tr><td colspan="2">Course Learning Outcomes (CLO)</td></tr>
<tr><td>CLO 1</td><td>recognize the importance of numerical methods in mathematical modeling</td></tr>
<tr><td>CLO 2</td><td>demonstrate basic algebraic and arithmetic computations in the Scilab environment</td></tr>
<tr><td>CLO 3</td><td>write and interpret programs in Scilab programming language</td></tr>
<tr><td>CLO 4</td><td>solve simple numerical problems using interactive Scilab commands</td></tr>
<tr><td>CLO 5</td><td>solve moderately complicated numerical problems by writing Scilab programs</td></tr>
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<tr><td>Study Load</td><td>36 contact hours + 120 learning hours</td></tr>
<tr><td>Assessments</td><td>Assignments / in-class activities (20%), two midterm tests (30%) and one 2.5 hour written examination (50%)
No supplementary examination will be offered.</td></tr>
<tr><td>Language of Instruction</td><td>English</td></tr>
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Class Schedule	
Date	July 17 - August 4, 2017 (Monday - Friday)
Time	09:30 - 12:30
Venue	The University of Hong Kong

Application	
Target Students	Non HKU Undergraduates
Pre-requisite	High score in NCEE (Gaokao) math or in AP Calculus, or Good grade in IB Math (DP) or in GCE A-level Further/Pure math, or Equivalent.
Remark	Students without Permanent HK Identity Cards may require visas to study in HKU. For student visa, please visit **Here**. HKU accommodation is also available, with priority given to students not residing in Hong Kong. For details, please visit **Here**.
Online Application	Please visit the **webpage of "MATH1641 Mathematical Laboratory and Modeling"** for **Online Application**.
Programme Fee	HK$13,000 and HK$350 Application Fee
Additional Supporting Documents	Applicants should provide a list of current courses, plus past exam result sheets or transcripts.
Deadline for Application	▪ March 15, 2017 for Non-local Applicants; ▪ May 31, 2017 for Local Applicants

Enquiries

Tel: 2241 5199 / 2859 2250
Email: AMGS@maths.hku.hk
Url: http://www.math.hku.hk/
Department of Mathematics, The University of Hong Kong

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