

HKU Summer Institute 2022

High School Programmes

Programme Details													
Programme Code	HS-MATH1011												
Programme Title	University Mathematics I												
Credit Bearing Programme	6 credits Upon satisfactory completion of the programme, students would be awarded 6 credits. These credits would be counted towards the students' studies in the Faculty of Science at HKU (by applying for an advanced standing of the programme). Recognition by other HKU Faculties would be subject to the approval of individual Faculties.												
Programme Description	Calculus is a branch of mathematics that finds wide applications in science, economics and finance, engineering and many other areas. This is a first programme in one-variable calculus												
Programme Outline	<ul style="list-style-type: none"> ▪ Pre-calculus topics (set theory, combinations and permutations, mathematical induction, binomial theorem, exponential, logarithmic and trigonometric functions) ▪ Limits and Differentiation with Applications ▪ Indefinite and Definite Integrals with Applications 												
Learning Outcomes	<p>On successful completion of this programme, students should be able to:</p> <table border="1"> <thead> <tr> <th colspan="2">Programme Learning Outcomes (PLO)</th> </tr> </thead> <tbody> <tr> <td>PLO 1</td> <td>use the set notations; calculate probabilities; and prove by induction</td> </tr> <tr> <td>PLO 2</td> <td>solve problems involving exponential, logarithmic and trigonometric functions</td> </tr> <tr> <td>PLO 3</td> <td>evaluate limits and derivatives</td> </tr> <tr> <td>PLO 4</td> <td>compute simple definite and indefinite integrals</td> </tr> <tr> <td>PLO 5</td> <td>solve practical problems such as determining maxima and minima; finding area</td> </tr> </tbody> </table>	Programme Learning Outcomes (PLO)		PLO 1	use the set notations; calculate probabilities; and prove by induction	PLO 2	solve problems involving exponential, logarithmic and trigonometric functions	PLO 3	evaluate limits and derivatives	PLO 4	compute simple definite and indefinite integrals	PLO 5	solve practical problems such as determining maxima and minima; finding area
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Study Load	36 contact hours + 40 learning hours												
Assessments	<ul style="list-style-type: none"> ▪ Assignments (5%) ▪ Three online tests (45%) ▪ Final examination (50%) <p>No supplementary examination will be offered.</p>												
Language of Instruction	English												

Class Schedule	
Programme Period	June 27 - July 8, 2022
Class Day & Time	Monday, Tuesday, Wednesday, Thursday & Friday 09:00 - 13:00 (Note: Online lectures and tutorials + some pre-recording lectures. All the live lectures and tutorials will be recorded and uploaded on the Moodle after class. There will be online tests and exam.)
Venue	This programme will be conducted online .

Application	
Pre-requisite	S4-S6, or Equivalent, in the academic year 2021-2022. Applicants should provide a list of current programmes plus the examination results of the first, second and third most recent semesters.
Remarks	This programme is the same as the summer programme MATH1011 offered to non HKU undergraduate students. Accommodation: Not Applicable
Online Application	Please visit the webpage of "MATH1011 University Mathematics I" for Online Application .
Programme Fee	HK\$8,520
Early Bird Offer*	Apply on or before February 28, 2022 <ul style="list-style-type: none"> ▪ 5% discount on programme fee
Summer Scholarships offered by HKU Academy for the Talented*	Academy members <ul style="list-style-type: none"> ▪ 20% discount of the programme fee
Discount offered to HKUSI Alumni*	<ul style="list-style-type: none"> ▪ 20% discount of the programme fee
Discount offered to referral by HKUSI Alumni and HKU members*	<ul style="list-style-type: none"> ▪ 10% discount of the programme fee
Deadline for Application	June 10, 2022

*All discounts are not in conjunction with any other discounts.

Enquiries
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