

HKU Summer Institute 2020

High School Programmes

Course Details													
Course Code	MATH1011												
Course Title	University Mathematics I												
Credit Bearing Programme	6 credits Upon satisfactory completion of the course, 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 course). Recognition by other HKU Faculties would be subject to the approval of individual Faculties.												
Course 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 course in one-variable calculus.												
Course 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 course, students should be able to:</p> <table border="1"> <thead> <tr> <th colspan="2">Course Learning Outcomes (CLO)</th> </tr> </thead> <tbody> <tr> <td>CLO 1</td> <td>use the set notations; calculate probabilities; and prove by induction</td> </tr> <tr> <td>CLO 2</td> <td>solve problems involving exponential, logarithmic and trigonometric functions</td> </tr> <tr> <td>CLO 3</td> <td>evaluate limits and derivatives</td> </tr> <tr> <td>CLO 4</td> <td>compute simple definite and indefinite integrals</td> </tr> <tr> <td>CLO 5</td> <td>solve practical problems such as determining maxima and minima; finding area</td> </tr> </tbody> </table>	Course Learning Outcomes (CLO)		CLO 1	use the set notations; calculate probabilities; and prove by induction	CLO 2	solve problems involving exponential, logarithmic and trigonometric functions	CLO 3	evaluate limits and derivatives	CLO 4	compute simple definite and indefinite integrals	CLO 5	solve practical problems such as determining maxima and minima; finding area
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Study Load	36 contact hours + 120 learning hours												
Assessments	<ul style="list-style-type: none"> ▪ Assignments and in-class activities (10%) ▪ Two tests (40%) ▪ Final examination (50%) <p>No supplementary examination will be offered.</p>												
Language of Instruction	English												

Class Schedule

Course Period	June 29 - July 17, 2020
Class Day & Time	Monday, Wednesday & Friday 09:30 - 12:30 (Lecture) Tuesday & Thursday 10:30 - 12:30 (Tutorial) <ul style="list-style-type: none">There will be no lesson on July 1, 2020 (Wednesday).
Venue	This course will be conducted via Zoom or other platforms (to be announced).

Application

Pre-requisite	Form 4 or above, or Equivalent, in the academic year 2019-2020. Applicants should provide a list of current courses plus the examination results of the first, second and third most recent semesters.
Remarks	This course is the same as the summer course MATH1011 offered to non HKU undergraduate students. Accommodation: Not Applicable
Online Application	Please visit the <u>webpage of "MATH1011 University Mathematics I" for Online Application.</u>
Course Fee	HK\$4,400 (This course will be switched to online teaching. A special discount of 20% off will be applied)
Early Bird Offer	Apply on or before March 1, 2020: 5% discount on course fee
Deadline for Application	June 15, 2020

Enquiries

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