

# HKU Summer Institute 2020

## Undergraduate Programmes

Course Details													
<b>Course Code</b>	MATH1011												
<b>Course Title</b>	University Mathematics I												
<b>Credit Bearing Programme</b>	6 credits												
<b>Course Description</b>	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.												
<b>Course Outline</b>	<ul style="list-style-type: none"> <li>▪ Pre-calculus topics (set theory, combinations and permutations, mathematical induction, binomial theorem, exponential, logarithmic and trigonometric functions)</li> <li>▪ Limits and Differentiation with Applications</li> <li>▪ Indefinite and Definite Integrals with Applications</li> </ul>												
<b>Learning Outcomes</b>	<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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<b>Study Load</b>	36 contact hours + 120 learning hours												
<b>Assessments</b>	<ul style="list-style-type: none"> <li>▪ Assignments and in-class activities (10%)</li> <li>▪ Two tests (40%)</li> <li>▪ Final examination (50%)</li> </ul> <p>No supplementary examination will be offered.</p>												
<b>Language of Instruction</b>	English												

## Class Schedule

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

## Application

<b>Target Students</b>	Non HKU Postgraduate Students, Non HKU Undergraduates
<b>Pre-requisite</b>	Applicants should provide a list of current courses and past exam result sheets or transcripts.
<b>Remarks</b>	Accommodation: Not Applicable
<b>Online Application</b>	Please visit the <b><u>webpage of "MATH1011 University Mathematics I" for Online Application.</u></b>
<b>Course Fee</b>	HK\$14,500 (This course will be switched to online teaching. A special discount of 20% off will be applied)
<b>Discount</b>	10% off for students from HKU exchange partners
<b>Early Bird Offer</b>	Apply on or before March 1, 2020 <ul style="list-style-type: none"><li>12% discount on course fee (HKU partners' students)</li><li>5% discount on course fee (non HKU partners' students)</li></ul>
<b>Deadline for Application</b>	June 15, 2020

## Enquiries

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