



**Secondary Schools - The Hong Kong University of Science and Technology (HKUST)
Dual Program 2018
Level 1 (Mathematics)**

**中學／大學雙修課程 2018
階段一（數學）**

Course Objectives 課程目標

This is a course designed for students who would like to explore and understand the fundamental concepts and techniques of calculus. The course will start with an introduction to the important concepts of limits and continuity, then proceed to a concise treatment on the techniques and applications of differentiation and integration, and finally lead to the understanding of the relationship between differential and integral calculus.

本課程特為有志探究及了解微積分基礎概念的學生而設。課程將先介紹極限與連續性之概念，繼而精簡扼要地討論微分與積分的技巧及其應用，從而引導學生了解微分和積分之間的關聯。

Pre-requisite 修讀條件

Knowledge on HKDSE Math 具備香港中學文憑考試之數學知識

Course Instructor 課程導師

Dr Cheng Kam Hang, Henry (Department of Mathematics) 鄭錦恒博士（數學系）

Medium of Instruction 教學語言

Cantonese / English *, with lecture notes in English
廣東話／英語授課 *，並輔以英文教材

Assessment 評核方式

Classwork / Homework / Mid-term Test / Final Assessment (No
make-up assessment is arranged)
課堂表現／功課／中期測試／期終評估（不安排後補評估）

Venue 地點

HKUST Campus 香港科技大學

** The medium of instruction adopted for this course will depend on the enrolment each year.*

課程最終採取的教學語言將依據每年報讀學生情況而定。

Remarks 備註

Outstanding students will be promoted to DP Level 2. This schedule is tentative and subject to change if necessary.

表現優異的同學可晉升雙修課程階段二。課程時間表為暫定，會應需要而變。



DP Level 1 (Mathematics) — Course Schedule

雙修課程 階段一（數學） — 課程時間表

Session 節次	Date 日期	Time 時間	Venue 地點	Topic 課題
1	24/11/2018 (Sat)	To be confirmed 待定	To be confirmed 待定	Commencement Ceremony 開學典禮
		2:00 – 5:00 pm		Function 函數
2	1/12/2018 (Sat)	2:00 – 5:00 pm		Limits and Continuity 極限和連續性
3	8/12/2018 (Sat)			Limits and Continuity (Cont'd) 極限和連續性（續）
4	15/12/2018 (Sat)	12:30 – 2:00 pm		▲ Tutorial 1 (Optional) ▲ 導修課 1（選擇參與）
		2:00 – 5:00 pm		Introduction to Differentiation 微分引論
5	5/1/2019 (Sat)	2:00 – 5:00 pm		Differentiation Techniques 微分技巧
6	12/1/2019 (Sat)	2:00 – 3:00 pm		
		3:00 – 5:30 pm		
7	19/1/2019 (Sat)	2:00 – 5:00 pm		Differentiation Techniques (Cont'd) 微分技巧（續）
8	26/1/2019 (Sat)			Applications of Differentiation 微分之應用
9	2/2/2019 (Sat)			
10	23/2/2019 (Sat)			Mid-term Assessment & Applications of Differentiation (Cont'd) 中期評估 及 微分之應用（續）
11	2/3/2019 (Sat)	12:30 – 2:00 pm		▲ Tutorial 2 (Optional) ▲ 導修課 2（選擇參與）
		2:00 – 5:00 pm		Anti-derivatives 反導數
12	9/3/2019 (Sat)	2:00 – 5:00 pm		Introduction to Definite Integrals 定積分引論
13	16/3/2019 (Sat)			
14	23/3/2019 (Sat)			
15	30/3/2019 (Sat)	12:30 – 2:00 pm	▲ Tutorial 3 (Optional) ▲ 導修課 3（選擇參與）	
		2:00 – 5:00 pm	Fundamental Theorem of Calculus 微積分基本定理	
16	6/4/2019 (Sat)	2:00 – 5:00 pm	Applications of Integration 積分之應用	
17	13/4/2019 (Sat)			
18	27/4/2019 (Sat)		Assessment 評核	
	4/5/2019 (Sat)	To be confirmed 待定	Make-up Session in case of Bad Weather 天氣惡劣的後補課節	

▲ Tutorial: Conducted by Dual Program alumni. **For signed-up students only.** 導修課：由雙修課程舊生指導。只限已報名同學參與。

*Student Activity Day: Students will have a chance to participate in enrichment activities outside classroom. Apart from it, CDGT will organize a wide range of activities and programs such as campus tour and mentorship scheme for students. Details will be announced later.

學生活動日：學生將有機會走出課室參與活動及參觀。除此以外，CDGT 將舉辦更多活動，如：校園探索之旅及師友計劃，以助學生作全面發展。詳情容後公布。