

Secondary Schools - The Hong Kong University of Science and Technology (HKUST)
Dual Program 2018
Pre-stage Level (Physics)

中學／大學雙修課程 2018
預備階段（物理）

Course Objectives 課程目標

This course is designed as a bridging course for Dual Program Level 1 Physics. Mathematics is indispensable for studying physics. The course provides students with the necessary mathematical foundation for proceeding to Levels 1 and 2 Physics. The topics include functions, calculus, vectors, and complex numbers.

這課程是為銜接雙修課程階段一物理學而設計的。對於學習物理學，數學是不可或缺的。這課程涵蓋的數學課題包括函數、微積分、向量及複數，為學生晉升物理階段一及階段二打好基礎。

Course Instructor 課程導師

Dr Ng Yee Fai (Department of Physics) 吳誼暉博士（物理學系）

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 / Assignment / Final Assessment
(No make-up assessment is arranged)
課堂練習／作業／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 1. 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一。課程時間表為暫定，會應需要而變。



DP Pre-stage Level (Physics) — Course Schedule

雙修課程 預備階段（物理） — 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		Functions, Inverse Functions and Composite Functions 函數、反函數及複合函數
2	1/12/2018 (Sat)	2:00 – 5:00 pm		Trigonometric Functions 三角函數
3	8/12/2018 (Sat)			Exponential and Logarithmic Functions 指數函數及對數函數
4	15/12/2018 (Sat)			12:30 – 2:00 pm
		2:00 – 5:00 pm		Limits and Derivatives 極限和導數
5	5/1/2019 (Sat)	2:00 – 3:00 pm		Differentiation Rules 微分法則
		3:00 – 5:30 pm		* Student Activity Day (Mandatory) 學生活動日 (所有學生必須出席)
6	12/1/2019 (Sat)	2:00 – 5:00 pm		Differentiation Rules (Cont'd) 微分法則 (續)
7	19/1/2019 (Sat)			Differentiation of Trigonometric Functions 三角函數求導
8	26/1/2019 (Sat)			Differentiation of Exponential and Logarithmic Functions 指數函數及對數函數求導
9	2/2/2019 (Sat)			Applications of Differentiation 微分之應用
10	23/2/2019 (Sat)			Indefinite Integration: Change of Variables and Integration by Parts 不定積分：換元積分法及分部積分法
11	2/3/2019 (Sat)			12:30 – 2:00 pm
		2:00 – 5:00 pm		Definite Integration: Fundamental Theorems of Calculus 定積分：微積分基本定理
12	9/3/2019 (Sat)	2:00 – 5:00 pm		Applications of Definite Integration 定積分之應用
13	16/3/2019 (Sat)			Vectors: Basic Vector Algebra 向量：基礎向量代數
14	23/3/2019 (Sat)			Vectors: Inner Product and Cross Product 向量：內積及向量積
15	30/3/2019 (Sat)			12:30 – 2:00 pm
		2:00 – 5:00 pm		Complex Numbers 複數
16	6/4/2019 (Sat)	2:00 – 5:00 pm	Revision / Mock Assessment 複習／模擬評核	
17	13/4/2019 (Sat)		Final Assessment 期終評核	
	27/4/2019 (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。