國立陽明交通大學遠距教學課程一教學計畫大綱 The Teaching Plan for Distance Learning Courses of National Yang Ming Chiao **Tung University**

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1. 開授遠距教學課程,應由開課單位擬具教學計畫,依課程規劃及研議程序辦理,經教務相關之校級會議通過後實 施;本教學計畫大綱會上傳至教育部「大學校院課程網」。 The teaching plan for a distance learning course should be made by the course provider, based on the curriculum plan and study procedures, and then be submitted to a university-level meeting related to academic affairs for approval before the course can be conducted. It will be uploaded to the "University Curriculum Website" of the Ministry of Education. 同一教師不得針對課程名稱或性質相近之課程再次申請授課時數加計。 2. Teachers are not allowed to apply for additional teaching hours again using their courses with similar titles or natures. 開課期間:____113____學年度 第___1__學期 Course Period: _____Semester of Academic Year _____ 首次開設之「遠距課程」:□是(請續勾選下題一或題二) ■否(以下免勾選) Offering the "Distance course" for the first time: □Yes (please check the boxes in Table 1 or 2 below) □No (no need to check the following boxes) 請教師先確認本次申請加計 1.5 倍之課程 □是 □否 為「課程名稱」或「性質相近」之課程 (不申請加計 1.5 倍者免填) Please confirm that the course for which you are applying for 1.5 times teaching hours this time is a course of the same "course name" or of "similar nature" (yes or no) (if not applicable, there's no need to check the boxes below) 1、 此為上或下學期首次開設遠距課程,是否要申請加計授課時數1.5倍:□要申請 □不申請 This is the first time you're offering a distance course in the first or second semester. Do you need to apply for 1.5 times teaching hours: □Yes □No

2、 此為暑期首次開設遠距課程,是否要申請加計授課時數 1.5 倍:(非暑期課程免填)

This is the first time you're offering a distance course in the summer term. Do you need to apply for 1.5 times teaching hours: (if not applicable, there's no need to check a box below)

□要申請(不	支領暑期授課鐘點費	,改列計為次學年授課時數加計	1.5 倍)
□要甲請(不	支領者期授課鐘點貿	,改列計為次学年投議時數加計。	1.5 倍

□Yes (I	don't want to get paid for the summer course	. Instead,	I'd like to ha	ve it credited	to the te	aching
hours	in the following academic year.)					

不	申	請

□ No

壹、課程基本資料 (有包含者請於□打 /

1. Basic information (Check a box if applicable)

□ Course name □ Course name □ Erraf y Z 名稿 □ Course name in English □ 水久 課意 □ Permanent Course ID □ 常明課號 □ Course Number □ **** □ ****** □ ******* □ ******** □ ********	4	課程名稱	微積分甲(二)
2 Course name in English	1	Course name	
Course name in English 永久課號 Permanent Course ID a	2	課程英文名稱	CalculusA(II)
Permanent Course ID	2	Course name in English	
### Section of the course form of the course in which distance learning synchronous and asynchronous and a	2	永久課號	GECS10002
を	3	Permanent Course ID	
Washing and position of the teacher 日本	4	當期課號	564020
数學型態 Teaching style **本校康和榮學總產文義: **MYCU's definition of a distance learning course: (1) 條稿本校修課學生皆以遺 療験上方式進行學習之課程。A courses that is delivered remotely, meaning that students receive lastruction online. (2) 適定に同步及非同步投資 時數起過檢投課時數二分 A course in which distance learning sessions (synchronous and asynchronous) account for more than half of its total teaching hours. (4) 機謀擊極之及職稱 Name of the department: (5) 本籍 (如子學校與条所名稱: (6) 内容 (如子學校與条所名稱: (7) 人名 (如子學校與条所名稱: (8) 內容 (如子學校與条所名稱: (9) 內容 (如子學校與条所名稱: (9) 內容 (如子學校與条所名稱: (1) 姓名 Name of the foreign university and its department : (1) 姓名 Name i 余 放射 (2) 職稱 Position: 助理教授級專案教學人員 主開条所 Main department offering the course : (2) 職稱 Position: 助理教授級專案教學人員 主開条所 Main department offering the course : (2) 職稱 Position: 助理教授級專案教學人員 主開条所 Main department offering the course : (2) 職稱 Position: 助理教授級專案教學人員 主用条所 Main department offering assistance: 「1) 姓名 Name : 余啟哲 (2) 職稱 Position: 助理教授級專案教學人員 主用条所 Main department offering the course : (2) 職稱 Position: 助理教授級專案教學人員 主用条所 Main department offering the course : (2) 職稱 Position: 助理教授級專案教學人員 主用条所 Main department offering the course : (2) 職稱 Position: 助理教授級專案教學人員 主用条所 Main department offering assistance: 「2) 職務 Position: 助理教授級專案教學人員 主用条所 Main department offering assistance: 「2) 職務 Position: 助理教授級專案教學人員 主用条所 Main department offering assistance: 「2) 職務 Position: 助理教授級專案教學人員 主用条所 Main department offering assistance: 「2) 職務 Position: 助理教授級專案教學人員 主用条所 Main department offering assistance:	4	Course Number	
Teaching style *本校透班發學课程定義: *NYCU's definition of a distance learning course: (1) 係指本校修課學生皆以透			■非同步遠距課程 Asynchronous distance course
# 本核遠距發學課程定義: **NYCU's definition of a distance learning course: (1) 係指本核後譯學生資以遠		教學型態	□同步遠距課程 Synchronous distance course
*本核達更較學課程定義: **NYCU's definition of a distance learning course: (1) 係指本校修課學生皆以違 經歷上方式進行學習之釋 校 **		Teaching style	請填列本校課程主播而外校收播之校名與系所:(無則免填)
*NYCU's definition of a distance learning course: (1) 係指本校修課學生皆以遠程:			If the course is broadcast by NYCU while received by other
Sourse			university, please fill in its name and department: (if not
(1) 係指本校修課學生皆以遠 無線上方式進行學習之課 A Courses that is delivered remotely, meaning that students receive instruction online. (2) 遠延(同步及非同步)検課 問数超過急検課時数二分之一。 A course in which distance learning sessions (synchronous) account for more than half of its total teaching hours. (2) 複雑教師姓名及職稱 (2) 世報 (2) 世報 (2) 世報 (2) 職稱 Position: 助理教授級專案教學人員 開課單位名稱(或所屬學院及科系所名稱) (2) 職稱 Position: 助理教授級專案教學人員 主開系所 Main department offering the course: 微積分數學小組 輔開系所 Department(s) offering assistance: (2) 職稱 Position: 助理教授級專案教學人員 主開系所 Main department offering the course: 微積分數學小組 輔開系所 Department(s) offering assistance: (3) 職務 Pospartment(s) offering assistance: 世報 Master's Degree Program □模士班 Master's Degree Program □域士班 □博士班 PhD Program □學位學程(□四年制 □硕士班 □博士班 □ Degree Program □ Pd位學程(□四年制 □硕士班 □博士班 □ Degree Program □ Pd位學程(□四年制 □硕士班 □博士班 □ Degree Program □ Degree P		The state of the s	
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Please list the cooperative distance courses you're having with a students receive instruction online.			
foreign university (if not applicable, leave it blank): (2) 遠距(同步及非同步)接標時數超過總接譯時數二分之一。 A course in which distance learning sessions (synchronous and asynchronous) account for more than half of its total teaching hours. (3) 投票教師姓名及職稱 (4) Name and position of the teacher (2) 職稱 Position:助理教授級專案教學人員 主開系所 Main department offering the course: 微積分教學小組, 新名稱) Name of the course provider (or the college and department) (5) 大學主班 Bachelor's Degree Program (1) 共班 Master's Degree Program (1) 共班 Master's Degree Program (1) 共班 Master's Program (1) 中班 PhD Program (1) 中		A courses that is delivered	
online. (2) 遠程(同步及非同步)授課	5		
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Learning sessions (synchronous and asynchronous) account for more than half of its total teaching hours.			Name of the foreign university and its department:
□境外專班 Overseas Master Degree Program offered by NYCU □境外專班 Overseas Master Degree Program offered by NYCU □境外專班 Overseas Master Degree Program offered by NYCU □境外專班 Overseas Master Degree Program □其他 Others [2] 職稱 Position:助理教授級專案教學人員 [3] 上開系所 Main department offering the course: [4] 微積分教學小組 「新名稱」 「Name of the course provider (or the college and department) [5] 上開系所 Main department offering the course: [6] 機積分教學小組 「新用系所 Department(s) offering assistance: [7] 「開課單位名稱(或所屬學院及科系所 Department(s) offering assistance: [7] 上班 Bachelor's Degree Program □項士班 Master's Degree Program □項士班 PhD Program □博士班 PhD Program □學位學程(□四年制 □碩士班 □博士班) □ Degree program □ Master's program□ PhD Program)		A course in which distance	
asynchronous) account for more than half of its total teaching hours. 授課教師姓名及職稱			•
Dual Degree Program		1	□境外專班 Overseas Master Degree Program offered by NYCU
□其他 Others 技課教師姓名及職稱			
接課教師姓名及職稱 Name and position of the teacher (2) 職稱 Position:助理教授級專案教學人員 開課單位名稱(或所屬學院及科 系所名稱) Name of the course provider (or the college and department) W		teaching hours.	
Name and position of the teacher (2) 職稱 Position:助理教授級專案教學人員 主開系所 Main department offering the course: 微積分教學小組 輔開系所 Department(s) offering assistance:			
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##單位名稱(或所屬學院及科	6	Name and position of the teacher	
7 8所名稱)			
Name of the course provider (or the college and department) ■學士班 Bachelor's Degree Program □碩士班 Master's Degree Program □碩士在職專班 In-service Master's Program □博士班 PhD Program □學位學程(□四年制 □碩士班 □博士班) Degree program (□ 4-year program □ Master's program□ PhD Program)		開課單位名稱(或所屬學院及科	
Name of the course provider (or the college and department) ■學士班 Bachelor's Degree Program □碩士班 Master's Degree Program □碩士班 PhD Program □博士班 PhD Program □學位學程(□四年制 □碩士班 □博士班) Degree program (□ 4-year program □ Master's program□ PhD Program)	7	系所名稱)	微積分教學小組
■學士班 Bachelor's Degree Program □碩士班 Master's Degree Program □碩士在職專班 In-service Master's Program □博士班 PhD Program □學位學程(□四年制 □碩士班 □博士班) Degree program (□ 4-year program □ Master's program□ PhD Program)	'		輔開系所 Department(s) offering assistance:
□碩士班 Master's Degree Program □碩士在職專班 In-service Master's Program □博士班 PhD Program □學位學程(□四年制 □碩士班 □博士班) Degree program (□ 4-year program □ Master's program□ PhD Program)		the college and department)	
□碩士在職專班 In-service Master's Program □博士班 PhD Program □博士班 PhD Program □學位學程(□四年制 □碩士班 □博士班) Degree program (□ 4-year program □ Master's program□ PhD Program)			■學士班 Bachelor's Degree Program
#程學制 □學位學程(□四年制 □碩士班 □博士班) Degree program □ Master's program□ PhD Program)			□碩士班 Master's Degree Program
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Course structure Degree program □ Master's program□ PhD Program)		100 de 613 de 1	□博士班 PhD Program
(□ 4-year program □ Master's program□ PhD Program)	8		□學位學程(□四年制 □碩士班 □博士班)
		Course structure	Degree program
□學分學程 Credit program			(□ 4-year program □ Master's program□ PhD Program)
			□學分學程 Credit program

9	科目類別 Subject Type	■共同科目 Common Subject □通識科目 General Education Subject □校定科目 NYCU-determined Subject □專業科目 Professional Subject □教育科目 Educational Subject □其他 Others
1	選課別 Course Type	■必修 Required □選修 Elective □其他 Others
1 1	學分數 No. of Credits	4
1 2	每週上課時數 No. of teaching hours per week	*每週上課時數:同步遠距課程請填入每週「面授」及「同步」之合計上課時數。若無法界定每週時數,填入每週平均時數(即學期總「面授」+「同步」時數除以總課程週數);非同步遠距教學,請填平均每週非同步授課時數。 *Teaching hours per week: For synchronous distance learning, please fill in the total hours of "face-to-face" and "synchronous" teaching sessions per week. If the teaching hours cannot be calculated, just fill in the average number of hours per week (total hours of "face-to-face" + "synchronous" sessions divided by the total number of the course weeks); for asynchronous distance learning, please fill in the hours of asynchronous teaching sessions per week.
1	開課班級數	1
3	No. of classes	100
1 4	預計總修課人數 Expected No. of students taking the course	100
1	全英語教學	□ 是 Yes ■ 否 No
5	Course taught in English only	
1 6	課程平臺網址(非同步教學必填) Course platform website (required for asynchronous teaching)	■ E3 非同步遠距教學 E3 Asynchronous distance learning course □ E3 同步遠距教學 E3 Synchronous distance learning course □ E3&CS100 教室(同步) E3 & CS100 classroom (synchronous) □ 其他 Others:

貳、課程教學計畫

2. The Teaching Plan

1.	教學目標 Teaching objectives	透過無窮數列與級數學習泰勒展開式,並學習使用多變數的微積分。
2.	ig合修習對象 Target students	大學部學生
3.	課程內容大綱 Course outline	(請填寫每週次的授課內容及授課方式;授課方式請填時數) (please fill in course contents and teaching method for each week; fill in number of teaching hours for the teaching methods)

		The second secon				2023.09.07 K
					授課方式及時數	
					hing methods and	1
					(請填時數,無則免	
		週次	授課內容		ımber of hours, leav	
			Contents of		't have anything to in	
		Week	the course	面授	遠距	牧學
				Face-to-	Distance	learning
				face	非同步	同步
				teaching	Asynchronous	Synchronous
			(悠入)	teaching		Synchronous
		1	(簡介)		4	
			Infinite	,	0	
		2	Sequences and	4	2	
			Series			
			Infinite	:	4	
		3	Sequences and		4	
			Series			
			Infinite	A	1	
		4	Sequences and	4	1	
			Series			
			Vectors and		2	
		5	the Geometry		Δ	
			of Space			
		6	Vector	2	3	
			Functions			
		7	Partial	2	2	
			Derivatives			
		8	Partial Derivatives		3	
			Partial			
		9	Derivatives	4	1	
			Partial	· ·		
		10	Derivatives		4	
			Partial			
		11	Derivatives	2	2	
			Multiple			
		12	Integrals		3	
			Multiple			
		13	Integrals	2	2	
			Multiple	_	_	
		14	Integrals	2	3	
			Multiple	_		
		15	Integrals	2	2	
		16	(期末考)	2	2	
		1		<i>-</i>	3	
		17	(彈性授課)			
		18	(彈性授課)		3	
		(有包含	含者請打,可複選	王)		
		(Check a	box if applicable;	select one or	r more answer ch	oices)
	教學方式	\ \ <u>\</u>	(1) 提供線上課			,
4.	Teaching methods					aro provided fer
	reaching methods			iementary tea	aching materials a	are provided for
			online courses	11 4- 15 14 1	1 47	
			(2) 有線上都	改師或線上助	7教	

		Online teachers or teaching assistants are available.
		☑ (3)提供線上非同步教學,次數:50次,總時數:46小時
		Online asynchronous teaching sessions are provided:
		time(s), with a total ofhours
		☑ (4)提供面授教學,次數:8_次,總時數:16小時
		Face-to-face teaching is provided:time(s), with a total of
		hours
		Online synchronous teaching sessions are provided:time(s),
		with a total ofhours
		☑ (6) 其它:(請說明)Other options (Details here):
		5次實體考試(每次2小時,共計10小時),視進度提供線上測驗
		供學生練習。
		1. 教科書 Textbooks:
	山山县日在北县次	Calculus(Early Transcendentals), James Stewart, 9th Edition
	教科書及參考書資	2. 講義 Handouts:
5.	料	3. 参考資料 Reference materials:
	Textbooks and	4. 相關網站 Related websites:
	reference materials	https://calculus.math.nycu.edu.tw/,
		https://ocw.nycu.edu.tw/index.php
		請勾選以下會使用之 E3 功能
		Please check the E3 features that you will use
		☑ 最新消息發佈、瀏覽 Releasing and browsing the latest news
		☑ 教材內容設計、觀看、下載 Designing, viewing or downloading
		the contents of teaching materials
	於 E3 系統所提供	☑ 成績系統管理及查詢 Managing and inquiring the system that
	的學習活動	keeps track of student grades
6.	Learning activities	上 進行線上測驗、發佈 Conducting or releasing an online test
	offered by the E3	☑ 學習資訊 Gaining access to learning information
	system	
		互動式學習設計(聊天室或討論區)Designing interactive
		learning (through a chat room or discussion forum)
		teaching activities 其他相關功能(請說明)Other features (Details here)
	師生互動討論方式	☑ 線上討論 Online discussion:利用 E3 討論區
7.	How teacher-	☑ 面談 Face-to-face discussion:面授時可發問
'	student discussion is	□ 其他 Others:
	conducted	(4 4 4 4 4 1 一 丁 次))
		(有包含者請打,可複選)
		(Check a box if applicable; select one or more answer choices)
		□ (1)提供線上說明作業內容 Offering online instructions on
	作業繳交方式	how assignments should be done
8.	How assignments	☐ (2)線上即時作業填答 Allowing students to complete online
	are submitted	assignments in real time
		[(3)作業檔案上傳及下載 Allowing students to upload and
		download assignments
		☑ (4)線上測驗 Providing online tests

		☑ (5)成績查詢 Allowing grade inquiry				
		□ (6)其他做法(請說明)Others (Details here):				
	成績評量方式	(1) 考試方式 How tests are conducted:實體現場考試				
9.	How performance is	(2) 考評項目其所佔總分比率 Evaluation items, with their percentage of				
	evaluated	the total score: 100%				
	上課注意事項	務必注意教學平台發布之公告與教材。				
10.	Other classroom					
	rules					
請注	意:教師授課使用之教	材,不得非法重製,並應遵守著作財產權之相關規定,如有涉及犯罪或侵權行				
	為應負相關法律責	任。建議老師參考主管機關之教師授課著作權錦囊(連結經濟部智慧財產局)				
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Signature of applicant:		Signature of head of course provider:				