國立清華大學_109_學年第_1_學期新開課程課程大綱

科號		組別		學分	2	人數限制	無

修課年級	☑ 大學部 三 年級以上 ☑ 碩士班一年級以上(含博士班) ☑ 碩士班二年級以上(含博士班)

上課時間	M5M6	教室	

科目中文名稱	傳染疾病模型特論（一）

科目英文名稱	Special topics in infectious disease modeling I

任課教師	張筱涵

擋修科目	無	擋修分數	無

※下列各欄由任課教師提供※

一、課程說明	This class will introduce the major concepts and mathematical models in infectious disease dynamics. Both conceptual background in infectious diseases and fundamental approaches to model infectious disease dynamics will be covered.
二、指定用書	An Introduction to Infectious Disease Modelling by Emilia Vynnycky ISBN: 978-0198565765
三、參考書籍	Selected papers from high profile journals
四、教學方式	All students are required to read all assigned chapters and papers and then participate in classroom discussion.
五、教學進度	Week 1-2. Introduction to infectious diseases Week 3-4. Introduction to infectious disease models Week 5-6. How to set up models Week 7-9. Deterministic models Week 10-12. Stochastic models Week 13. Age dependent models Week 14. Contact patterns Week 15. Vaccination Week 16. Special topic in COVID-19

	Week 17. Special topic in dengue virus Week 18. Special topic in malaria
六、成績考核	Class discussion: 40%. Assigned presentation: 40%. Attendance: 20%.
七、講義位址 　　http://	