

# 國立清華大學工業工程與工程管理學系

## 112 學年度第一學期碩士學分班

### 【創新研發管理】課程內容報導

這門課程旨在介紹有效管理創新和研發的概念和原則，這對於技術型企業而言已成為主要的機遇和競爭優勢。課程將從工程和商業考慮的角度，檢視並討論關鍵問題和相關案例，並呈現選定的方法、工具，以實現產品、流程、服務和商業模式創新和發展的有效管理。

Date	Theme	Reading (text chapter)	Case & 授課老師	Activity
1. 9/14	<b>Course Overview: Introduction -- Business Logic of Technology Innovation Management</b>			
2. 9/21	<b>I. Executing &amp; Building Technology Innovation</b>	Organizing for Innovation (Ch. 10)	C1. Acer Aspire (中)	Confirm Group
3. 9/28	Organization & Process for Technology Development	Managing New Product Development Process (Ch.11)	C2. IDEO Product Development(中)	
4. 10/05	Core Competence & Strategic Intent	Managing New Product Development Team (Ch. 12)	C3. Design Thinking & Innovation at Apple (中)	
5. 10/12	Corporate strategy in emerging markets	Defining Strategic Direction (Ch. 6)	C4. Apple's Future(中)	
6. 10/19	Creating Project Plan, Portfolio & Dynamics	Choosing Innovation Projects (Ch. 7)	C5. We've Got Rhythm! Medtronic Corp(中)	Homework 1
7. 10/26	<b>II. Exploring Innovation Dynamics</b>	Source of Technology Innovation (Ch. 2)	C6. Intel Research (中)	
8. 11/02	專題演講(I)	AI 概論：過去現在與未來	Handout	
9. 11/09	Creating Project Plan, Portfolio & Dynamics	Collaboration Strategies (Ch. 8)	<b>Project Proposal/Background</b> (15-20 m presentation)	Mid-term <sup>+</sup> project draft
10. 11/16	Innovation Roadmap & Pattern	Type & Pattern of Innovation (Ch. 3)	C7. TSMC: Distributed Innovation (中)	
11. 11/23	Technology Standard & Dominance	Standard Battle & Design Dominance (Ch. 4)	C8. Qualcomm 2009 & 2011(中)	
12. 11/30	Change management & Leadership	Entry Timing (Ch. 5)	C9. Uber(中)	
13. 12/07	Value Creation & Deployment Strategy	Crafting Deployment Strategy (Ch. 13)	C10. Google Inc. (中)	
14. 12/14	Service Innovation	R&D Comes to Services	C11. Netflix(中)	Homework 2
15. 12/21	<b>III. Managing Innovation Value Network</b>	Protecting Innovation (Ch. 9)	C12. LEGO: Publish or Protect (中)	
16. 12/28	專題演講(II)	TBD		
17. 1/04	<b>Term-project/ Final review</b>	20-minute presentation <sup>++</sup>	Review & Presentation	Final project. draft <sup>++</sup>
18. 1/11	<b>Term-project/ Final review</b>	20-minute presentation <sup>++</sup>	Review & Presentation	Final project. draft <sup>++</sup>

#### 課程大綱

課程主要的進行方式為同學們於課前預習當天課程所欲討論之個案，再透過課堂上討論相關個案工程與企業考量之關鍵議題，加上老師介紹如何選擇創

新方法與工具以使得產品、流程、服務以及商業模式的創新與發展能更有效率的管理與運作。

## 分組討論

各組根據當周的個案進行分組討論



## 期末報告

學期中各小組針對期末報告進行報告，每個人均要為各組評分並提問。各組報告完後，老師會針對各組之主題進行進一步的討論並分享一些知識給學員們。

