**國立陽明交通大學科技管理研究所113學年度第2學期**

**學分班招生簡章**

 一、**依據**：專科以上學校推廣教育實施辦法及本校推廣教育計畫審查辦法及本校推廣教育收支管理要點。

 二、**目的**：提供高科技產業及相關單位人員進修科技管理領域新知，提昇科技產業生產力。

 三、**資格**：具有報考研究所碩士班資格者（大學畢業或三專畢業滿二年，二專或五專畢業滿三年）。

 四、**招生名額**：每班各40名，**依註冊繳費順序為優先錄取**。

 五、**修讀課程**：見附件一，學員每學期**至多以修9學分**為原則(教育部規定)。

 六、**修讀期限**：不限，每學期上課十八次 (含考試)。

 七、**上課時間**：週一至週五晚上6:30～9:30，或週六、週日全日。

 八、**上課地點**：本校光復校區綜合一館7F(新竹市大學路1001號)。

 因疫情影響，本期課程可能採線上教學方式進行。

 九、**開學日期**：春季班自114年2月17日起上課，至114年6月20日止。

 十、**收費標準**：新生報名費200元，舊生免。1科：21,600元，本校教職員1科：10,800元，至多選3科。

十一、**進出校門方式**：計次停車券一張50元(一天內同門進出一次使用一張)，第一堂課先購買一張並同時登記要購買之張數，原則上一學期一門課18堂，繳費時請自備零錢，當天即可開始使用。

 十二、**報名方式及選課**：報名自即日起至114年2月14日(星期五)止。

1. 上網報名，網址：https://cec.nycu.edu.tw/

 請先註冊會員，然後開始將課程加入購物車。

(2) 課程大綱：請上報名網頁<https://cec.nycu.edu.tw/> 點選科技管理研究所，點選課程名稱即可查詢。

(3) 資格審查：由本所(科技管理研究所)招生委員會審核之。

(4) 加退選及換課：如有特殊理由需更換課程，請於2月27日（星期四）前辦理，逾期不得以任何理由申請。

十三、**註冊繳費方式**：自即日起至**114年2月14日(星期五)止**。

(1) 報名成功後由承辦人通知或學員至系統訂單查詢，得到專屬之虛擬帳號及金額，完成轉帳後請保留轉帳收據。

(2)    學分費收據於課程結束後統一發給。

(3)    開課後兩次內可辦理保留或換選。

(4) 學費保留期限：自民國88年第一學期起，學分費保留期限為一年，若保留超過一年的學分費，均自動作廢，請在期限內用完，亦可轉讓他人使用，但不得要求另開收據，且期限仍為一年。

(5)   學員完成報名繳費後，因故申請退費，應依下列方式辦理：
(a) 學員自報名繳費後至開班上課日前申請退費者，退還已繳學分費、雜費等各項費用之九成。自開班上課之日起算未逾全期三分之一申請退費者，退還已繳學分費、雜費等各項費用之半數。開班上課時間已逾全期三分之一始申請退費者，不予退還。
(b) 已繳代辦費應全額退還。但已購置成品者，發給成品。
(c) 本所因故未能開班上課，應全額退還已繳費用。

 十四、**學分證明**：每修一科目考試成績及格(七十分以上)者，由本校發給學分證明書一張（學分證明書請妥善保存，若遺失不得重新補發，只能申請成績證明），但不授予學位，待考入科技管理研究所碩士在職專班，依法取得學籍後，得依規定承認學分。(經濟學、會計學、統計學、管理學等四門課為研究所先修課程，但在學分班為選修)

十五、**學分抵免**：自107學年度起為本所必修或選修課程成績達八十分以上(含)；或為本所先修課程成績達七十分以上(含)，考入本所碩士班或專班，依法取得學籍後，得依規定承認學分；選修及必修至多承認15學分為上限。

十六、**成績單及學分證明申請辦法**：

(1)中文學分證書：每學期結束後發給，不得重複申請，免費。

(2)中文成績單：請來電告知姓名、學號，免費。

(3)英文成績單：請給英文姓名、學號，拼字須與護照相同，免費。

十七、**請假相關規定：**

(1)出席率：**出席率應達70%以上**，授課老師始予評分。

(2)請假：應於上課前e-mail註明學號、姓名、課程、請假日期、理由， 給授課教師及助教或mltsai@nycu.edu.tw或傳真到所辦辦理。

十八、**連絡處**：新竹市大學路1001號　國立陽明交通大學科技管理研究所學分班

 TEL:(03)5731981 FAX:(03)5726749 蔡小姐

113學年度第2學期課程

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 課程名稱 | 學分 | 上課期間 | 時數 | 授課教師 | 上課時間 | 上課地點 |
| **機器學習演算法與應用** | **3** | **2/17(一)** | **54** | **李昕潔教授** | **週一18:30～21:30** | **新竹光復校區 綜合一館A701** |
| **新創與企業內部創業** | **3** | **2/18(二)** | **54** | **黃仕斌教授** | **週二18:30～21:30** | **新竹光復校區 綜合一館A701** |
| **科技管理研究方法與專題** | **3** | **2/19(三)** | **54** | **林士平教授** | **週三18:30～21:30** | **新竹光復校區 綜合一館A701** |
| **產業分析與創新** | **3** | **2/20(四)** | **54** | **蘇信寧教授** | **週四18:30～21:30** | **新竹光復校區 綜合一館A701** |
| **創業思維與價值創造** | **3** | **2/15(六)** | **54** | **林士平教授** | **週六13:20～16:20**  | **新竹光復校區 綜合一館A701** |
| **新興科技創新管理** | **3** | **2/16(日)** | **54** | 陳詩欣教授 | **週日10:10～13:10** | **新竹光復校區 綜合一館A701** |
| 設計思考與商業模式 創新 | **3** | **2/16(日)** | **54** | 陳詩欣教授 | **週日14:20～17:20**  | **新竹光復校區 綜合一館A701** |

共選科目：□ 1科：21,600元 □ 2科：43,200元 □ 3科：64,800元

新生報名費：200元（曾經修曾過科管所開設課程舊生免收報名費）

備註：網路報名截止日期：自即日起至114年2月14日(週五)止。
　　　註冊截止日期：114年2月14日(週五)止。
　　　開課後兩週內可辦理保留或換選。
　　　FAX：(03)5726749  TEL：(03)5731981 信箱：mltsai@nycu.edu.tw 蔡小姐

報名連結 https://cec.nycu.edu.tw/

報名步驟:

1. 請於頁面右上角「會員」註冊，填寫基本資料並上傳最高學歷證件，完成註冊。
2. 回到課程列表，由「所有系所」下拉選單、點選 「科技管理研究所碩士學分班」即可看見當期全部課程，點選課程名稱，點選「加入購物車」即可選課。
3. 進入頁面右方「購物車」確認個人資料，點選「資料確認無誤」填寫緊急聯絡人姓名、電話、收據抬頭，點「下一步」即完成選課。
4. 等候審核。
5. 再次登入會員，可見到會員圖示呈現您的姓名，點姓名處選「訂單查詢」可查到繳交學分費之專屬轉帳帳號及金額。
6. 完成轉帳，並請保留收據備查。

 新生報名費   https://cec.nycu.edu.tw/Course/CourseInfo?CId=72437

  機器學習演算法與應用       週一   晚間

  https://cec.nycu.edu.tw/Course/CourseInfo?CId=72429

 新創與企業內部創業         週二    晚間

 https://cec.nycu.edu.tw/Course/CourseInfo?CId=72430

 科技管理研究方法            週三    晚間

 https://cec.nycu.edu.tw/Course/CourseInfo?CId=72431

 產業分析與創新               週四    晚間

   https://cec.nycu.edu.tw/Course/CourseInfo?CId=72432

 創業思維與價值創造          週六    下午

 https://cec.nycu.edu.tw/Course/CourseInfo?CId=72433

 新興科技創新管理             週日     上午

  https://cec.nycu.edu.tw/Course/CourseInfo?CId=72434

 設計思考與商業模式創新    週日     下午

 https://cec.nycu.edu.tw/Course/CourseInfo?CId=72435

國立陽明交通大學 National Yang Ming Chiao Tung University

113學年度 第2學期 機器學習演算法與應用

 Machine Learning Algorithm and Its Application 課程綱要

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| --- | --- | --- |
| 課程名稱：（中文）機器學習演算法與應用（英文）Machine Learning Algorithm and Its Application | 開課單位： | 科管所  |
| 永久課號： | MGMT30039 |
| 上課時間/教室: | 週一18:30-21:30/ A701 |
| 授課教師：李昕潔 |
| 學分數： | 3.00 | 必／選修： | 選修 | 開課年級： | \* |
| 先修科目或先備能力：1. 基礎數學 (大學部程度) （b）電腦科學概論 (計算機概論)

選擇性：（a）離散數學 (無可, 有則更好)  |
| 課程概述與目標：本課程的目的在於提供基礎機器學習理論知識，並提供給對機器學習及其應用有興趣的學生一個基礎的概念。本課程完成後，學生將掌握機器學習的基本知識，並進一步了解其在尖端科技中的多樣化應用。 |
| 教科書（請註明書名、作者、出版社、出版年等資訊）： | 書名: Introduction to Machine Learning (3rd Edition)作者: Ethem Alpaydin出版社: The MIT Press出版年: 2014 |

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| 課程大網 | 分配時數 | 備註 |
| 單元主題 | 內容綱要 | 講授 | 示範 | 習作 | 其他 |
| 機器學習演算法 | 1、導論2、概念學習3、監督式學習4、非監督式學習5、半監督式學習6、?化學習7、決策樹學習8、人工神經網路9、支持向量機10、貝葉斯學習11、計算學習理論12、優化理論 | 39 |   |   |   |   |
| 機器學習應用 | 前沿機器學習應用研討與分析 | 9 |   |   |   |   |

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| 教學要點概述： |
| 1.學期作業、考試、評量1.學期作業: 無2.考試狀況: 無3.評量方法:上課問答(20%), 個人期中報告(40%), 期末小組報告(40%)2.教學方法及教學相關配合事項（如助教、網站或圖書及資料庫等）部分課程內容是通過選擇適當的教材、科技報告、期刊論文和相關的最新科技新聞來組織的。 |
| 師生晤談 | 排定時間 | 地點 | 聯絡方式 |
| 事先預約 |  |  ＃57519 |

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| 每週進度表 |
| 週次 | 上課日期 | 課程進度、內容、主題 | 教師授課時數 |
| 1 |  | 導論 |  |
| 2 |  | 導論 |  |
| 3 |  | 概念學習 |  |
| 4 |  | 監督式學習 |  |
| 5 |  | 非監督式學習 |  |
| 6 |  | 半監督式學習 |  |
| 7 |  |  化學習 |  |
| 8 |  | 決策樹學習 |  |
| 9 |  | 人工神經網路 |  |
| 10 |  | 支持向量機 |  |
| 11 |  | 期中考 |  |
| 12 |  | 貝葉斯學習 |  |
| 13 |  | 計算學習理論 |  |
| 14 |  | 優化理論 |  |
| 15 |  | 前沿機器學習應用研討與分析 |  |
| 16 |  | 前沿機器學習應用研討與分析 |  |
| 17 |  | 前沿機器學習應用研討與分析 |  |
| 18 |  | 期未考 |  |

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國立陽明交通大學 National Yang Ming Chiao Tung University

113學年度第2學期新創與企業內部創業

Startup and intrapreneurship 課程綱要

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| Course Title：(Chinese) 新創與企業內部創業(English) Startup and intrapreneurship  | 開課系所 | 科管專 |
| 永久課號  | MGMT30022 |
| 上課時間/教室 | 週二 18:30-21:30/ A701 |
| Instructor: Kevin Huang  |
| Credits | 3 | Required/Elective | Elective | Year of Students (for undergraduate courses) |  |
| Required competence or courses that must be previously taken by students: |
| Course Descriptions and Objectives:Business transformation is an umbrella term for making fundamental changes in how a business or organization runs. This includes personnel, processes, and technology. These transformations help organizations compete more effectively, become more efficient, or make a wholesale strategic pivot. In this class we will examine various issues associated with business transformation using case studies. The course objectives are:The basic concept of lean startup To understand how firms evaluate, screen, and select new venturesTo analyze the different managerial roles in corporate ventures and the challenges associated with these rolesTo understand the particular roles of external corporate venturing and corporate venture capital. To understand the tensions between the corporate venturing unit, the business unit and the portfolio firmTo apply this knowledge to a real-life situation |
| Textbooks (please specify titles, authors, publishers and year of publication) | Materials required will be distributed before class. |
| Course Contents | Hours | Remarks |
| Topics | Outlines | Lectures | Demon-stration | Experiment | Others[[1]](#endnote-1) |
| Lean startup | Startup processes | 8 | 8 | 8 |  |  |
| Business transition and corporate venture | Corporate venture: culture, organization, strategy, and implementation issues and its associated business cases.  | 8 | 8 | 8 |  |  |
| Description of Course Details:1. Evaluation and Grading Policy:

1.Report 1 (Group)：25%2.Report 2 (Group)：25%3.Final exam：25%4.Attendance/participation：25% |
| Office Hours |  Time Slot |  Location |  Contact Information |
|  | 705 | Ext. 57524 |
| **Syllabus** |

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| --- | --- | --- |
|  | **Date** | **Contents/Topic** |
| 1 |  | Introduction |
| 2 |  | Lean startup |
| 3 |  | Business plan  |
| 4 |  | Business design 　 |
| 5 |  | Architectural Innovation |
| 6 |  | Disruptive technology  |
| 7 |  | Solving the Dilemmas of Growth |
| 8 |  | Innovation entrepreneurial Dimensions  |
| 9 |  | Corporate Entrepreneurship Framework  |
| 10 |  | Entrepreneurial Levels  |
| 11 |  | Culture  |
| 12 |  | Human Resources (HR) – Individual Creativity & Organizational Perspective |
| 13 |  | Constraints on, and Assessment of, Entrepreneurial Performance  |
| 14 |  | Entrepreneurial Activity and Control |
| 15 |  | Sustaining Entrepreneurial Performance |
| 16 |  | How to Manage |
| 17 |  | How to Operate |
| 18 |  | Final exam  |

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| 國立陽明交通大學 National Yang Ming Chiao Tung University113學年度 第2學期 科技管理研究方法與專題 Methods and topics in Technology Management Research 課程綱要

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| --- | --- | --- |
| 課程名稱：（中文）科技管理研究方法與專題（英文）Methods and topics in Technology Management Research | 開課單位： | 科管專  |
| 永久課號： | MGMT30101 |
| 上課時間/教室： | 週三 18:30-21:30/ A701 |
| 授課教師：林士平 |
| 學分數： | 3.00 | 必／選修： | 選修 | 開課年級： | \* |
| 先修科目或先備能力：None |
| 課程概述與目標：This course introduces students to the basic methods for conducting meaningful Technology Management research. It provides students with the type of skills necessary for the planning, designing, data collection, data analysis, and dissemination stages of technology management research. Students will be exposed to the forming of research objective, research philosophies, research design, methods of data collection approaches to analyzing data, presentation, and academic writing. There is an emphasis on research techniques used in technology management research. The course includes lectures, seminars, workshops, in-class discussion and exercises, readings, presentations, and project writing. |
| 教科書（請註明書名、作者、出版社、出版年等資訊）： | ‧ Yin, R. (2011). Case study research: Design and methods, 5th edition. SAGE.‧ Ellet, W. (2007). The case study handbook: How to read, discuss, and write persuasively about cases. Harvard Business Press.‧ Matthew B.. Miles, Huberman, A. M., ＆amp; Saldana, J. (2014). Qualitative data analysis: A methods sourcebook. Sage.‧ Spinelli, S. ＆amp; Adams, R. (2012). New venture creation: Entrepreneurship for the 21st century (9th Edition), McGraw-Hill/Irwin.‧ Betz, F. (2011). Managing technological innovation: competitive advantage from change. John Wiley ＆amp; Sons.‧ Burgelman, Robert., Christensen, Clayton. ＆amp; Wheelwright, Steven. (2008) Strategic management of technology and innovation. McGraw-Hill/Irwin.‧ Cases, journal papers and other reading materials. |

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| 課程大網 | 分配時數 | 備註 |
| 單元主題 | 內容綱要 | 講授 | 示範 | 習作 | 其他 |

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| 教學要點概述： |
| 1.學期作業、考試、評量：Homework, assignments, field work, and presentations. Grading policy:Class participation (20%), Presentations (both group and individual) (30%), Final Project (50%)2.教學方法及教學相關配合事項（如助教、網站或圖書及資料庫等） |
| 師生晤談 | 排定時間 | 地點 | 聯絡方式 |
| Monday – Wednesday, 9am – 12pm | A707  | Make appointment via emails. |

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| 每週進度表 |
| 週次 | 上課日期 | 課程進度、內容、主題 | 教師授課時數 |
| 1 |  | Introduction to the course, course instructor, and TA. |  |
| 2 |  | Introduction to technology management research |  |
| 3 |  | Ethical issues in research |  |
| 4 |  | Research topics |  |
| 5 |  | Research Design |  |
| 6 |  | Research Methodology |  |
| 7 |  | Data collection and analysis |  |
| 8 |  | Drawing and verifying conclusion |  |
| 9 |  | Academic Writing Workshop 1 |  |
| 10 |  | Journal papers presentation 1 |  |
| 11 |  | Journal paper presentations 2 |  |
| 12 |  | Research topics 1  |  |
| 13 |  | Research topics 2 |  |
| 14 |  | Research topics 3 |  |
| 15 |  | Individual supervision |  |
| 16 |  | Academic Writing workshop 2 |  |
| 17 |  | Final Project presentation 1 |  |
| 18 |  | Final Project presentation 2 |  |

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| 備註： |
| 1.請遵守智慧財產權觀念及勿使用不法影印教科書。 |
| 2.其他欄包含參訪、專題演講等活動。 |
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| 國立陽明交通大學 National Yang Ming Chiao Tung University 113學年度 第2學期 產業分析與創新 Industry Analysis and Innovation課程綱要

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| 課程名稱：（中文）產業分析與創新（英文）Industry Analysis and Innovation | 開課單位： | 科管專  |
| 永久課號： | MGMT30042 |
| 上課時間/教室： | 週四 18:30-21:30/ A701 |
| 授課教師：蘇信寧 |
| 學分數： | 3.00 | 必／選修： | 必修 | 開課年級： | \* |
| 先修科目或先備能力：None |
| 課程概述與目標：This course aims to help student understand how to enhance industrial innovation and sustainability by well-designed strategic decisions, i.e. assess internal and external resources, analyze organizational structure, formulate and implement innovation strategies in effective ways. In addition to structural knowledge to be taught in the class, world-renown cases studies will also be provided to cover both theory and practice in analyzing and innovating industries. In summary, the purpose of this course is to integrate multiple innovation concepts and theories to analyze mechanism of strategic innovation for advancing industry. The analysis of such mechanism comprises three major dimensions, i.e. 1) innovation strategy inputs, 2) innovation strategy formulation, and 3) innovation strategy implementation.  |
| 教科書（請註明書名、作者、出版社、出版年等資訊）： |
	1. Strategic Management of Technological Innovation, Forth Edition by Mellissa A. Schilling
	2. 2. R. Duane Ireland, Robert E. Hoskisson, Michael A. Hitt (2010) The Management of Strategy: Concepts and Cases (nine edition)
	3. Hitt, M.A., Ireland, R.D., Hoskisson, R.E. (2016) Strategic Management Cases: Competitiveness and Globalization. (12th edition)
	4. Academic journal papers provided in class. |

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| 課程大網 | 分配時數 | 備註 |
| 單元主題 | 內容綱要 | 講授 | 示範 | 習作 | 其他 |
|  | 1.Introduction to Innovation2. Industrial development3. Protecting Innovation | 18 | 9 |  |  |  |
|  | 1. Innovation Strategy Input2. Innovation Strategy formulation3. Innovation Strategy implementation | 18 | 9 |  |  |  |

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| 教學要點概述： |
| 1.學期作業、考試、評量1. Homework and Assignments: Assignments for individuals2. Exams and Quizzes: open book exam.3. Evaluation and Grading Policy: Presentation 30%, Mid-term 20%, Final Exam 30%, Homework 10%, Participation 10%.4. Pedagogy and other supplementary information (websites, TAs, handouts and/or databases): Handout and Journal Paper2.教學方法及教學相關配合事項（如助教、網站或圖書及資料庫等） |
| 師生晤談 | 排定時間 | 地點 | 聯絡方式 |
| By Appointment | Assembly Building 1 - 712 | 03-5712121 #57503 |

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| 每週進度表 |
| 週次 | 上課日期 | 課程進度、內容、主題 | 教師授課時數 |
| 1 |  | Course Introduction |  |
| 2 |  | Introduction to InnovationSource of Innovation |  |
| 3 |  | Types and Patterns of InnovationStandards Battles and Design Dominance |  |
| 4 |  | Timing of EntryDefining the Organization’s Strategic Direction |  |
| 5 |  | Choosing Innovation ProjectsCollaboration Strategies |  |
| 6 |  | Protecting Innovation |  |
| 7 |  | Innovation Strategy Input |  |
| 8 |  | Innovation Strategy Formulation |  |
| 9 |  | Mid-Term |  |
| 10 |  | Innovation Strategy Implementation |  |
| 11 |  | Industrial Analysis and Technology Management |  |
| 12 |  | Industrial Knowledge Structure and Knowledge Mapping |  |
| 13 |  |  Industrial and Country Level Technological Resilience  |  |
| 14 |  | Global R＆amp;D Collaboration |  |
| 15 |  | Research Presentation |  |
| 16 |  | Research Presentation |  |
| 17 |  | Research Presentation |  |
| 18 |  | Final Exam |  |

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| 國立陽明交通大學National Yang Ming Chiao Tung University113學年度 第2學期 創業思維與價值創造 Entrepreneurial Mindset and Value Creation 課程綱要

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| 課程名稱：（中文）創業思維與價值創造（英文）Entrepreneurial Mindset and Value Creation | 開課單位： | 科管專  |
| 永久課號： | MGMT30015 |
| 上課時間/教室 | 週六 13:20-16:20/ A701 |
| 授課教師：林士平 |
| 學分數： | 3.00 | 必／選修： | 選修 | 開課年級： | \* |
| 先修科目或先備能力：無 |
| 課程概述與目標：This course is designed to introduce the core concepts of entrepreneurship and venture creation, including entrepreneurial mindset, the difference between entrepreneurial and management mindsets, the definition of entrepreneurship, the profile of the entrepreneur, and the role of venture creation in society. It also provides practical, real-world knowledge about the lean approach, the art of the pitch, building and managing a team, allocating equity, and building your external team, advisory board members, professional services, and entrepreneurial strategy. The course includes lectures, case studies, field visits, in-class discussion and exercises, readings, business games, presentations, and project writing. |
| 教科書（請註明書名、作者、出版社、出版年等資訊）： | Fayolle, A. (2007). Entrepreneurship and new value creation: the dynamic of the entrepreneurial process. Cambridge university press.Bygrave, W. D., ＆amp; Zacharakis, A. (2004). The portable MBA in entrepreneurship. John Wiley ＆amp; Sons.Ries, E. (2011). The lean startup: How today's entrepreneurs use continuous innovation to create radically successful businesses. Crown Books.Bygrave, W. ＆amp; Zacharakis, A. (2010). Entrepreneurship, 2nd edition, John Wiley ＆amp; Sons.分配時數 |

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| 課程大網 | 分配時數 | 備註 |
| 單元主題 | 內容綱要 | 講授 | 示範 | 習作 | 其他 |
| 創業思維與價值創造 | 1. 創業思維與管理思維2. 價值創造3. 創業過程4. 運營模式5. 個案探討 | 40％ | 20％ | 20％ | 20％ |  |

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| 教學要點概述： |
| 1.學期作業、考試、評量1學期作業: 學習反思報告、個案/專題報告、營運計劃書2.考試狀況：無3.評量方法：課堂討論20%、口頭報告30%、專題作業報告50%2.教學方法及教學相關配合事項（如助教、網站或圖書及資料庫等） |
| 師生晤談 | 排定時間 | 地點 | 聯絡方式 |
| 每週三及週四 2 – 6pm  | A707 | 電子郵件預約 sirirat.sae.lim@nycu.edu.tw |

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| 每週進度表 |
| 週次 | 上課日期 | 課程進度、內容、主題 | 教師授課時數 |
| 1 |  | An introduction to the course and to Entrepreneurship  |  |
| 2 |  | Entrepreneurial Mindset and the role of entrepreneurship in the society  |  |
| 3 |  | The Entrepreneurial process and the founding team  |  |
| 4 |  | The nature of opportunity: Creating, Shaping, Recognizing, Seizing  |  |
| 5 |  | Value and Venture creation  |  |
| 6 |  | Marketing, strategy and the entrepreneur  |  |
| 7 |  | Developing the business concepts and business plan  |  |
| 8 |  | Evaluating and testing the business concepts and business plan  |  |
| 9 |  | Acquiring and organizing resources  |  |
| 10 |  | Innovation and new product development  |  |
| 11 |  | Field visit: Incubation center / science park / start-ups |  |
| 12 |  | Mid-term Project Presentation  |  |
| 13 |  | Entrepreneurship Forum |  |
| 14 |  | Management of operations |  |
| 15 |  | Financing and building the enterprise  |  |
| 16 |  | Final Project Presentation I |  |
| 17 |  | Final Project Presentation II |  |
| 18 |  | Conclusion and celebration  |  |

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| 備註： |
| 1.請遵守智慧財產權觀念及勿使用不法影印教科書。 |
| 2.其他欄包含參訪、專題演講等活動。 |
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國立陽明交通大學 National Yang Ming Chiao Tung University
113學年度 第2學期 新興科技創新管理 Emerging Technology and Innovation Management 課程綱要

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| 課程名稱：（中文）新興科技創新管理（英文）Emerging Technology and Innovation Management | 開課單位： | 科管專  |
| 永久課號： | MGMT30032 |
| 上課時間/教室： | 週日 10:10-13:10/ A701 |
| 授課教師：陳詩欣 |
| 學分數： | 3.00 | 必／選修： | 選修 | 開課年級： | \* |
| 先修科目或先備能力：The prerequisites for this course are the general course in the fields of management of technology. Graduated students who are interested in the management of technologies are all welcome. 本課程對先修課程不特別要求，僅需修習過科技或管理領域之任何一門課程，並對新興科技創新有興趣 。前兩週無需實體到教室，請線上參與：https://meet.google.com/wmp-qqib-cta The first two weeks do not require physical attendance in the classroom. Please participate online via the following link: https://meet.google.com/wmp-qqib-cta |
| 課程概述與目標：This course aims to help students to understand recent theoretical frameworks and practical issues in managing innovation and technology commercialization. The course aims to give students a thorough knowledge of where innovation takes place, how to organize it, and how innovation strategy can be used to enhance knowledge transfer, technology commercialization, and entrepreneurship. The course instructor will introduce concepts, issues, literature, and cases in the field of innovation management. This course focuses on the challenges associated with managing a emerging firm's resource capabilities for long-term competitive advantage. The theme of the courses cover methods to innovate, design , assess, and improve technological commercialization for emerging enterprises. The course will include field trip, guest lecture, board game, and case studies. 本課程不考試，除了課堂講授及同學報告之外，尚包含參訪、外賓演講、桌遊 及個案討論。 |
| 教科書（請註明書名、作者、出版社、出版年等資訊）： | Melissa A. Schilling (2012), Strategic Management of Technological Innovation, McGraw-Hill.陳澤義著(2016) 科技與創新管理，華泰文化李亭林譯(2013) 科技創新管理，華泰文化 |

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| 課程大網 | 分配時數 | 備註 |
| 單元主題 | 內容綱要 | 講授 | 示範 | 習作 | 其他 |
| The Emergence of Emerging Technologies | 1. Concepts ＆amp; Definition 2. Science, Technology, and Innovation Policy3. Technology Commercialization　 | 9 | 6 | 6 | 6 |  |
| Managing Innovation | 1. Networks ＆amp;Innovation2. Global Comparative Innovation Policies3. Collaborations ＆amp; Entrepreneurship | 9 | 6 | 6 | 6 |  |

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| 教學要點概述： |
| 1.學期作業、考試、評量：Evaluation and Grading Policy: Midterm Report (25%), in Class Performance (20%), Individual Assignment (25%), Course Project ＆amp; Final Report (30%)Pedagogy and other supplementary information (websites, TAs, handouts and/or databases): All of the course information and the handouts will be posted on E3.2.教學方法及教學相關配合事項（如助教、網站或圖書及資料庫等）古采頤 amygu30119mail@gmail.com紀汶欣  wenhsin.mg10@nycu.edu.twTeaching in English.meet.google.com/wmp-qqib-cta |
| 師生晤談 | 排定時間 | 地點 | 聯絡方式 |
| By Appointment | A715 | schen340@nycu.edu.tw |

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| 每週進度表 |
| 週次 | 上課日期 | 課程進度、內容、主題 | 教師授課時數 |
| 1 |  | Course Introduction |  |
| 2 |  | Introduction of Innovation Ecosystem  |  |
| 3 |  | Applying Generative Artificial Intelligence in the Business Model Innovation |  |
| 4 |  | Intellectual Property Management of Technological Innovation |  |
| 5 |  | Technology Classification and Life Cycles |  |
| 6 |  | Digital Transformation and Transitions |  |
| 7 |  | [Field Trip] \_x000B\_2024 Taiwan Innotech Expo |  |
| 8 |  | Stakeholder Analysis |  |
| 9 |  | BCI Technology Innovation Application Management |  |
| 10 |  | [Workshop] Design Thinking Mini Workshop |  |
| 11 |  | [Case Studies 1]Living Proof: Are We a Technology Company or a Beauty Company?"Harvard Business School Case 614-013 |  |
| 12 |  | [Case Studies 2]Delta Electronics Hybrid Power Train |  |
| 13 |  | [Case Studies 3]Quietly Brilliant: Transformational Change at HTC |  |
| 14 |  | Resilience Technology Corporation |  |
| 15 |  | Final Presentation |  |
| 16 |  | Final Presentation |  |
| 17 |  | Course Reflection |  |
| 18 |  | Course Reflection |  |

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| 備註： |
| 1.請遵守智慧財產權觀念及勿使用不法影印教科書。 |
| 2.其他欄包含參訪、專題演講等活動。 |
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國立陽明交通大學 National Yang Ming Chiao Tung University
113學年度 第2學期 設計思考與商業模式創新 課程綱要

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| 課程名稱：（中文）設計思考與商業模式創新（英文）Design Thinking and Business Model Innovation | 開課單位： | 科管專 |
| 永久課號： | MGMT30083 |
| 上課時間/教室： | 週日 14:20-17:20/ A701 |
| 授課教師：陳詩欣 |
| 學分數： | 3 | 必／選修： | 選 | 開課年級： |  |
| 先修科目或先備能力：本課程對先修課程不特別要求，僅需對科技管理或創新創業有興趣。Graduated students who are interested in the management of technologies are all welcome. |
| 課程概述與目標：本課程為跨校區課程，課程設計突破現行教科書、課程既有的限制，在商業模式規劃的基礎課程之外，配合教育部近期推行的人文社會與產業實務創新鏈結計畫，讓同學在課程中透過設計思考流程實作之學習，解決商業模式規劃問題，教授商業模式創新、營運管理實務、事業成長規劃策略，配合業師共授，傳授創業管理、設計思考實務經驗。This course aims to help students to understand recent theoretical frameworks and practical issues in managing innovation and technology commercialization. The course aims to give students a thorough knowledge of where innovation takes place, how to organize it, and how innovation strategy can be used to enhance design thinking, technology commercialization, and entrepreneurship. The course instructor will introduce concepts, issues, literature, and cases in the field of innovation management. This course focuses on the challenges associated with managing emerging firms’ resource capabilities for long-term competitive advantage. The theme of the courses covers methods to innovate, design, assess, and improve technological commercialization for emerging enterprises. The course will include workshops, guest lecture, and case studies. |
| 教科書（請註明書名、作者、出版社、出版年等資訊）： |
	* 劉世南，設計思考課程教材 Design thinking toolkit
	* Harvard Business Case 哈佛商學院管理個案
	* Ellen Lupton (2011), Graphic Design Thinking: Beyond Brainstorming
	* Stickdorn, Marc/ Schneider, Jakob(2012), This Is Service Design Thinking: Basics, Tools, Cases |

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| 課程大網 | 分配時數 | 備註 |
| 單元主題 | 內容綱要 | 講授 | 示範 | 習作 | 其他 |
| Business Model Innovation | 1. Networks and Innovation2. Global Comparative Innovation Policies3. Collaborations and Entrepreneurship | 9 | 6 | 6 | 6 |  |
| Design Thinking |
	1. Discover
	2. Define
	3. Develop
	4. Deliver | 9 | 6 | 6 | 6 |  |

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| 教學要點概述： |
| 1.學期作業、考試、評量：Evaluation and Grading Policy: Case Briefing (20%), Midterm Report (20%), in Class Performance (20%), Individual Assignment (10%), Course Project & Final Report (30%) Pedagogy and other supplementary information (websites, TAs, handouts and/or databases): All of the course information and the handouts will be posted on E3.2.教學方法及教學相關配合事項（如助教、網站或圖書及資料庫等）張弘佶  chang.hung-chi.mg11@nycu.edu.tw |
| 師生晤談 | 排定時間 | 地點 | 聯絡方式 |
| By Appointment | A716 | Email: schen340@nycu.edu.tw |

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| 每週進度表 |
| 週次 | 上課日期 | 課程進度、內容、主題 | 教師授課時數 |
| 1 |  | Introduction 課程簡介  |  |
| 2 |  | Design Thinking-Introduction設計思考通論 |  |
| 3 |  | Business Model Innovation商業模式創新規劃 |  |
| 4 |  | Empathy Map使用者同理心地圖 |  |
| 5 |  | Journey Map使用者旅程的地圖 |  |
| 6 |  | Design Thinking- Discover設計思考-探索  |  |
| 7 |  | Midterm Report期中報告 |  |
| 8 |  | 2X2 Matrix, 5W1H Method二維矩陣分析、5 W 1 H 完整描述一事件的分析架構 |  |
| 9 |  | Diary Construction, Fishbone Diagram日記法 、魚骨圖分析 |  |
| 10 |  | AEIOU Observation FrameworkAEIOU 活動描述分析 |  |
| 11 |  | Design Thinking- Development設計思考-發展  |  |
| 12 |  | Point Of View, How Might We, Brainstorm設計觀點 POV、HMW 我們如何、腦力激盪 |  |
| 13 |  | Design Thinking- Delivery設計思考-實行 |  |
| 14 |  | Prototype, Paper Prototype, Storyboard原型製作、紙本原型、故事分鏡腳本 |  |
| 15 |  | 期末成果交流會Final Report & Course Conclusion |  |
| 16 |  | 期末成果交流會Final Report & Course Conclusion |  |
| 17 |  | 彈性教學 |  |
| 18 |  | 彈性教學 |  |

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| 備註： |
| 1.請遵守智慧財產權觀念及勿使用不法影印教科書。 |
| 2.其他欄包含參訪、專題演講等活動。 |
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 [↑](#endnote-ref-1)