

臺北醫學大學數位課程製作徵件申請表

TMU Distant Learning Course Application Form

一、授課教師

主授教師姓名 (Instructor)			
單位 (Department)	_____學院_____系/所/科		
聯絡電話 (Tel/Mobile)	_____分機: _____ 行動: _____	E - mail	
聯合授課教師群 (Instructors)			
聯合授課教師姓名/單位/職稱, 若無請填寫「無」 (主授) 臺北醫學大學 人工智慧碩士在職專班 彭徐鈞 助理教授 國立臺北科技大學 電子工程系 賴冠廷助理教授 國立臺北大學 電機學系 鄭穎仁助理教授 國立臺灣海洋大學 機械與電機工程學系 吳俊毅助理教授			
課程外部合作單位與合作方式(Cooperative Partner and Types of Cooperation)			
若無請填寫「無」			

二、課程資訊

課程名稱 (Course Title)	中文 /Chinese		
	英文/English		
預計開課年/月 (Processing Semester)			
校內課程編號 (Course code)		學分 (Credits)	_____學分
課程週數 (Course week)	4 weeks	每週學習時數 (Lecture hours/per week)	2hr
主要授課語言 (Primary Language)	☐ 中文/Chinese ☐ 英文/English ☐ 其他/Other	課程難度 (Course level)	☐ 專業/Professional ☐ 基礎/Foundation ☐ 通識/General
課程主題 (Subjects)	☐ Business and Management ☐ Healthcare and Medicine ☐ IT & Computer Science ☐ Psychology and Mental Health ☐ Science Engineering and Math ☐ Other _____ (可複選 please select all applied)	適合程度 (Target Student)	☐ 高中以下/General ☐ 大學/Undergraduate Program ☐ 研究所/Masters Program

是否開設為磨課師課程 (MOOCs)	☐ 是 / Yes
承上, 是否為教育部補助製作之磨課師	☐ 是, 製作預算NT\$:_____ ☐ 否

三、課程規劃與設計

適合學習對象: Who is the course for? 此課程適用於對人工智慧有興趣之大學程度以上學生 對人工智慧之跨領域應用有興趣之線上學員 — This course is for anyone wants to understand artificial intelligence and its application in healthcare. It will be particularly relevevant for those with some existing knowledge healthcare, especially students, researchers and healthcare professionals.
課程內容說明 (Course Description) 主題包含人工智慧系統理論、人工智慧於自駕車與無人機的應用、人工智慧在海洋的應用、人工智慧應用在醫學神經影像分析等四個單元。課程設計搭配理論與案例講解、閱讀文獻、形成性評量與開放式討論問題, 讓學員在學習過程中探索人工智慧發展的可能性與多元的應用方法。 以課程概念引導、案例講解為主, 搭配閱讀及參考文獻讓學員進行深度學習, 每周學習時數約2小時。依照不同主題設計開放式問題, 引發學員進行線上討論的動機。 — This MOOC will allow participants to have a comprehensive understanding of principles of telemedicine and eHealth based on the case study from pediatric patients with growth disorders requiring growth hormone treatment. Short stature and the requirement for growth hormone therapy is a chronic condition needing continuous therapy over many years and involving the entire family. Outcomes for pediatric growth hormone therapy are largely auxological and can potentially be digitalised. However, education of both patient/families and healthcare personnel is required, and there are psychological repercussions throughout. At all of stages of the patient journey, e-health tools can have a significant impact and the various tools available will be outlined. Digital tools frequently track growth in children; however, there is little awareness on valid, useful and safe eTools in evaluation and management of growth in children. On the other side, pediatric endocrinologists acknowledge usefulness of eTools to make decisions but lack confidence and skills in using digital Tools to support clinical decision-making. This course will aim to address online education to improve digital literacy in diagnosis and management growth disorders through eHealth.
Topics of below will be included: 週次標題(Syllabus Week title) ● 智慧型系統及其應用 ● 人工智慧應用在醫學神經影像分析 ● AI在自駕車與無人機的應用 ● 人工智慧在海洋的應用

– ● eHealth and Telemedicine in diagnosis and management of growth disorders ● Research in eHealth and telemedicine in growth disorders ● Strategies for foster patient engagement and collaboration with health care providers and caregivers ● Patient to health care provider communication in the digital era. Future directions
課程特色(Course Feature) 不同於簡介, 這堂課有什麼特別之處
人工智慧是一種讓電腦、機器人或產品思考人類思維能力的方法。此門全英語課程能讓學習者更了解人工智慧邏輯運算理論與不同領域的應用模式, 能使學員對於人工智慧發展有更進一步的認識。 – This course is done as a part of collaboration between Taipei Medical University and Merck Healthcare KGaA and will cover all the topics. What would a comprehensive eHealth package for growth disorders look like? This course will explore best practices for utilizing eTools and Data Science to manage growth disorders in children and adolescents. We focus in this initiative on impact of digital health and telemedicine, such as the use of technologies for patient support and data-driven tools to support clinicians. It will also cover patient-centered translational research exploring the long-term impact of digital health in adherence to management of growth disorders, including studies looking at technology acceptance aspects such as usability, impact on quality of life, and implementation strategies.
學習目標(4-6 Learning Objects) 4-6 項學習目標
參考動詞單字: Apply, Access, Analyze, Calculate, Classify, Collaborate, Collect, Compare, Contribute, Debate, Demonstrate, Describe, Design, Develop, Discuss, Engage, Evaluate, Experiment, Explain, Explore, Identify, Improve, Interpret, Investigate, Modify, Perform, Produce , Report, Solve, Summarizes
● 探索智慧系統的基本規則及技術 ● 說明機器學習於臨床的應用 ● 探討深度學習於自動駕駛的應用 ● 探討AI於漁業永續發展之可能性 – ● Explore what eHealth is, telemedicine and how it applies to evaluation and management of growth disorders. ● Explain emerging understanding of challenges, opportunities and eHealth solutions as applied for management of growth from the viewpoints of caregivers, patients and health care providers. ● Engage in the activities that support the understanding and application of research methods for the evaluation of digital health tools. Ability to understand basic concepts of privacy and ethical considerations as applicable for individual use of digital tools. ● Investigate additional resources related to digital health in the view of setting up research proposals. ● Explore how eHealth applies to growth disorders ● Explore how ehealth tools can be applied to other disorders
學習評量方式 (Grading Standards)

使用形成性評量方式，每周設計5題線上測驗題，並於課程最後一周加入期末測驗題，作答後即測即評，使學員能更了解自己的學習狀況。

課程教材內容著作權使用聲明*

■ 申請人同意，課程內所有素材，其智慧財產權歸校方所有；上述之素材內容包括但不限於教學者編寫之授課教材、作業題目與解答、授課的聲音及影像。校方得依下列條件，將本課程授權合作之外部課程平台使用：

（一）授權方式：非專屬授權。

（二）授權地區：全球。

■ 申請人保證所編寫之教材內容，無任何抄襲、模仿、侵害或重製等侵害他人智慧財產權之情事。

四、課程應用

課程推廣方式 (Promotion)

開設跨國遠距課程、專業領域學會之繼續教育培訓合作、新南向或其他目標國家特色課程推廣、高中端推廣規劃.....等。

學習成效分析方法 (Learning Analytics)

提供學習成效研究規劃，如：背景與動機、研究目的、對象、資料蒐集方式、數據/資料擷取內容、研究及數據分析方式、預期成果。

例如：可透過I'm@TMU的【成員-學習記錄統計】資料與數據分析方法進行某課程學習效益分析。如：行為序列分析、觀看課程靈活性與成績表現關聯性、透過課程前後測驗分析學習表現、不同實施方式或教學方法之實驗組與對照組比較、討論或問卷質性回饋文字雲分析.....等。

五、聯絡資訊

申請人姓名 (Instructor)			
申請人單位 (Department)	_____學院_____系/所/科		
聯絡電話 (Tel/Mobile)	_____分機：_____	E - mail	
	行動：_____		

課程徵件協助與諮詢：臺北醫學大學 資訊處多元宇宙教媒製作中心 etm_group@tmu.edu.tw