

課程名稱 (course name)	(中) 新興科技與倫理 (Eng.) Ethics & Emerging Technology				
開課系所班級 (dept. & year)	通識教育中心	學分 (credits)	2	規劃教師 (teacher)	中國醫藥大學 Anthony Spinks
課程類別 (course type)	必修	授課語言 (language)	中文、英文	開課學期 (semester)	上、下
課程簡述 (course description)	<p>(中)</p> <p>這個主題將是一個嶄新的學習旅程，讓學生思考即將面臨的挑戰以及他們的哲學和倫理立場。科技進步是以指數數率快速地發展，許多專家都預測在未來 30 年，科技將帶給我們的生活和社會深刻及根本性的轉變，包括個性化的複製品、設計自己的寶寶、終結老化、電腦植入、全面監控、生物機器人與 'Singularity' 等科學領域。</p> <p>本課程將探討這些變化的兩個方面：第一，這些領域的科學基礎；其次，我們對這些科學變化的哲學和倫理反應。每兩週進行一場專題討論會，總共有七場。每場專題討論會的第一週會依據每個科學主題進行講座；第二週再針對其講座之哲學和倫理相關問題，進行辯論和討論。學生須依選定的主題進行報告，及思考每個主題的哲學和倫理觀點，並參加其辯論。</p> <p>本課程著重提升發表及辯論技巧、開發意識、了解科技發展趨勢、學習挑戰自己的哲學觀點。本課程採用全英文教學，但學生之英文程度不會直接影響其成績。</p> <p>(Eng.)</p> <p>This subject will be a journey to the near future where students will be challenged to consider their philosophical and ethical positions in a radically different world. Scientific and technological advancement is accelerating at an exponential rate, and many experts are predicting profound and fundamental transformations to our lives and societies over the next 30 years. Some of these areas include personalized clones, designing your own baby, ending aging, computer implants, all-seeing surveillance, artificial intelligence and robotics, and the 'Singularity'.</p> <p>This course will examine two aspects of these changes: Firstly, their scientific basis; and Secondly, our philosophical and ethical responses to them. Seven specific topics will be discussed, each for two weeks. The scientific basis of each topic will be introduced the first week, followed by a debate and discussion of the philosophical and ethical implications of that advancement in the second week. Students will give presentations on selected topics, as well as participate in debates on the philosophical and ethical considerations of each topic.</p> <p>The key outcomes of this course include developing presentation and debating skills, developing an awareness of scientific and technological trends, and learning to challenge and adapt your own philosophical views to new scenarios. English ability will not contribute directly to students grades, but lectures, debates and discussions will be conducted completely in English.</p>				

先修課程 (prerequisites)		無	
課程目標與核心能力關聯配比(%) (relevance of course objectives and core learning outcomes)			
課程目標	course objectives	核心能力 core learning outcomes	配比 總計 100%
本課程目標包括教導學生有關新興科技的知識，並透過不同型態的討論方式，提升學生批判分析能力及發言技巧。	The objectives of this course include providing students with knowledge about emerging technologies, refining the intellectual skills of critical thinking and self-analysis, and developing articulation skills through various forms of public discussion.	人文素養	0%
		科學素養	40%
		溝通能力	0%
		創新能力	0%
		國際視野	0%
		社會關懷	60%
課程目標之教學方法與評量方法 (teaching and assessment methods for course objectives)			
教學方法 (teaching methods)	學習評量方式 (evaluation)		
講授	Debate Moderator 5% Discussion Moderator 5% Class participation 10% Debate 15% Presentation 15% Major Essay 30% Final Exam 20%	Class Attendance 1 st absence 0% 2 nd absence - 2% 3 rd absence - 3% (total -5%) 4 th absence - 4% (total -9%) >4 absences = fail	
授課內容 (單元名稱與內容、習作 / 考試進度、備註) (course content and homework / tests schedule)			
Week 1 – Introduction Week 2 – Debating and Presentation Methods Week 3 – Lecture A: Deriving Ethics from Science Week 4 – Debate Topic A: Science Can Provide an Objective Set of Morals and Ethics. Week 5 – Lecture B: Surveillance and Human Bio-chipping Week 6 – Debate Topic B: The World is a Better Place because 'Big Brother' is Watching Week 7 – Lecture C: 'Designer Babies'. Choosing our babies genes and controlling evolution Week 8 – Debate Topic C: Responsible parents will design their baby's genome Week 9 – Essay Writing Week 10 – Lecture D: Cloning Week 11 – Debate Topic D: Having a 'spare parts' clone is immoral Week 12 – Lecture E: Ending Aging Week 13 – Debate Topic E: I want to live forever Week 14 – Lecture F: Artificial intelligence, Robotics, Nanotechnology Week 15 – Debate Topic F: Human-created AI machines will be the most likely cause of human extinction			

Week 16 – Lecture G: The Singularity

Week 17 – Debate Topic G: If humans become completely non-biological, then we have become extinct

Week 18 – Final Exam

教科書與參考書目 (書名、作者、書局、代理商、說明)
(textbook & other references)

課程教材 (教師個人網址請列在本校內之網址)
(teaching aids & teacher's website)

課程輔導時間
(office hours)