



課 綱 Course Outline
通識教育中心學士班

中文課程名稱 Course Name in Chinese	當代科技與心理健康				
英文課程名稱 Course Name in English	Modern Technology and Mental Health				
科目代碼 Course Code	GC_67850	班 別 Degree	學士班 Bachelor's		
修別 Type	選修 Elective	學分數 Credit(s)	2.0	時 數 Hour(s)	2.0
先修課程 Prerequisite					
課程目標 Course Objectives					
<p>科技始終來自人性，但科技具有改變人的能力，到底當代科技對於人的身心健康影響是如何？始終尚未有定論。因此，本課程將藉由與我們生活息息相關的不同主題，從心理學與大腦運作的觀點，剖析這些問題，從中找尋可能平衡之處，讓人們能夠更“適切”與健康的使用這些科技。</p> <p>1. 介紹與討論現代科技對大腦與心理的影響</p> <p>2. 引領學生跨域合作提出各種有助研究或是減緩科技影響之心理實驗/調查、科技應用、警示設計、教育方式或是法律政策。</p> <p>Even technology originates from the needs of human, technology can change the nature of human by using them.</p> <p>Modern technologies have profound effects on both physical and mental health, but their long-term impacts remain inconclusive.</p> <p>This course explores these complex interactions by examining how modern technologies influence the brain and psychological well-being. Through discussion, analysis, and interdisciplinary collaboration, students will seek a balanced perspective—one that enables people to engage with technology in healthier and more mindful ways.</p> <p>Course Objectives: Understanding Impact: Introduce and critically discuss the effects of modern technology on the brain, behavior, and mental health from psychological and neuroscientific perspectives.</p> <p>Exploring Solutions: Through cross-disciplinary dialogue, propose and design approaches—such as experiments, investigations, technological applications, warning systems, educational strategies, or policy recommendations—to research or mitigate the effects of technology on physical and mental health.</p>					
(校)教育目標 Objectives of General Education					
1	在地關懷與全球視野 Develop domestic and global perspectives				
2	人文素養與科學知識 Achieve humanistic values and scientific literacy				

3	全人健康與永續創新 Holistic Wellness and Sustainable Innovation	
(校)核心能力 Learning Outcomes		課程目標與校核心能力相關性 Correlation between Course Objectives and Basic Learning Outcomes
A	自主學習與創新思考 Autonomous Learning and Creative Thinking	●
B	康健身心 Physical Fitness and Mental Balance	●
C	互動、溝通與解決問題 Interactive Communication and Problem Solving	○
D	情藝美感 Artistic Feeling and Aesthetic Perception	
E	文化素養與尊重差異 Cultural Literacy and Respect for Differences	
F	在地關懷與公民責任 Local Commitment and Civic Responsibility	

圖示說明Illustration：● 高度相關 Highly correlated ○ 中度相關 Moderately correlated

課程大綱
Course Outline

- W01: 課程介紹
- W02: 科技如何影響大腦運作
- W03: 大數據與身心健康
- W04: 穿戴式裝置與身心管理(GOMORE博晶醫電營運長 劉宇庭博士)
- W05: 生成式AI對個人化教育與學習趨勢
- W06: 生成式AI對心理醫療照護新趨勢
- W07: 聊天機器人與心理諮商(新加坡大學資訊科學系 李苡杰教授)
- W08: 照護機器人與老人孤獨感(陽明交通大學生物科技系 黃植懋教授)
- W09: 元宇宙與沉浸式認知運作
- W10: 虛擬實境與體感設計(陽明交通大學資訊科學系 詹力韋教授)
- W11: 虛擬實境與腦機介面互動(清華大學竹師教育學院 莊鈞翔教授)
- W12: 智慧手機與科技冷漠和憂鬱
- W13: 遊戲設計心理與成癮
- W14: 社群綁架與焦慮症
- W15: 網紅經濟與“腦波弱”
- W16: 平台短影音與追劇心理學
- W17: 跨領域腦力震盪報告 I
- W18: 跨領域腦力震盪報告II

*部分課程時間與內容，會配合受邀演講教師時間進行微調。

- Week 01 Orientation
- Week 02 Brain function and mental health
- Week 03 Big data and mental health
- Week 04 AI' s new trends in mental health care
- Week 05 The impact of AI on personal cognitive operations
- Week 06 The impact of AI on personalized learning
- Week 07 Group Report I
- Week 08 Metaverse and physical and mental health

Week 09	3C Addiction and Psychosomatic Illness I: Mobile Phone Addiction and Technology Anxiety
Week 10	3C Addiction and Psychosomatic Illness II: Game Design Psychology and Addiction
Week 11	3C Addiction and Psychosomatic Illness III: Internet Dating and Psychological Needs
Week 12	Group Report II
Week 13	Internet fraud and psychological traps
Week 14	Internet celebrity economy and “brain wave weakness”
Week 15	Horror movies and psychological catharsis
Week 16	Group Report III
Week 17	Appreciation and summary of scientific and technological films
Week 18	Further Discussion

資源需求評估（師資專長之聘任、儀器設備的配合．．．等）
Resources Required (e.g. qualifications and expertise, instrument and equipment, etc.)

特定課程將會邀請專業教師進行分享，但實際邀請名單將視各老師個人時間進行調整邀請人選，大綱僅為目前暫定邀請對象。

課程要求和教學方式之建議
Course Requirements and Suggested Teaching Methods

1. 每堂課：教師搭配視頻以講課方式介紹流行科技對於大腦和身心健康的研究與應用，再透過半結構問卷讓學生自己分析不同流行科技對自己的影響以及可能自我調節的方式。

2. 以有禮貌的方式勇於提問和參與。

Course Requirements and Suggested Teaching Methods

The instructor will combine video materials and lectures in each session to introduce current research and practical applications related to how emerging technologies influence brain function and mental and physical health. Through a variety of interactive activities—such as psychological scales, experiments, and case-based discussions—students will have opportunities to analyze the personal impacts of different technologies and to develop effective strategies for self-regulation and healthy technology use. ◦ Evaluation:

Individual

1. Report (1000–3000 words)
 - (1) Science fiction film (6%)
 - (2) Book Reading(6% , each for 3% , optional)
2. Peer Evaluation (Three times, each for 2%, total 6%)
3. Class Participation (4%)

Group (1-4 persons)

4. In-Class Assignments (40%)
5. Group Report (Total: 38%)
 - (1) Oral presentations (25%):
 - (2) Extended exploring report (13%): 1500–4000 words

其他
Miscellaneous