

【數位培力】 借力使力不費力— 開放教育資源OERs 教學應用經驗分享

臺北醫學大學 萬序恬

2025.03

講師介紹

萬序恬

現職

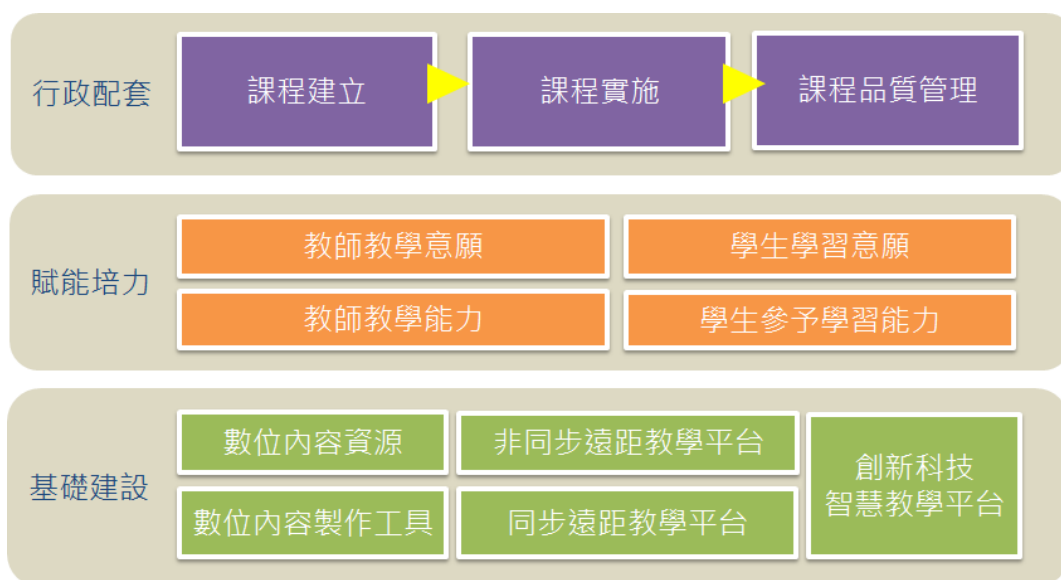
- 臺北醫學大學副資訊長
- 臺北醫學大學跨領域學院數位自學中心主任
- 臺北醫學大學創新科技教學應用教師社群召集人
- 臺北醫學大學通識教育中心兼任助理教授
- Board of Directors, Open Education Global
- 台灣開放式課程暨教育聯盟理事、中華開放教育聯盟理事



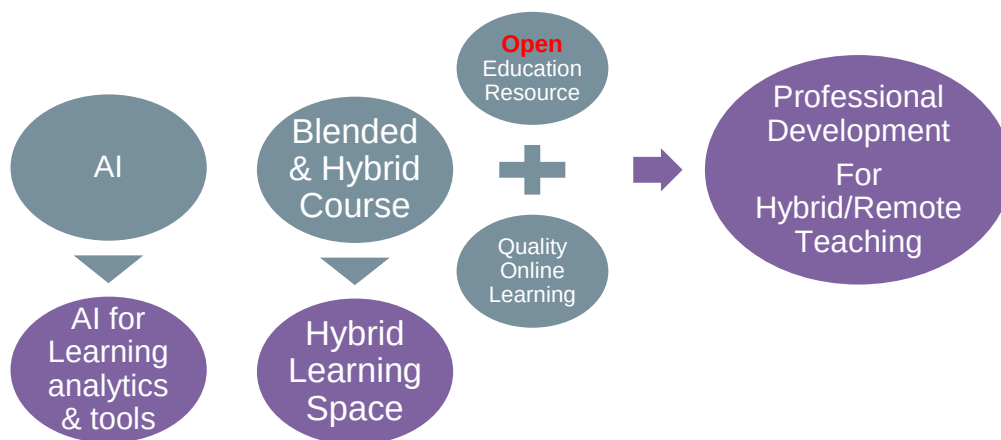
相關報導



數位教與學面向



近年來教育科技的關鍵議題



資料來源：Horizon Report 2022

Massive Online Open CourseWare Education Resource

UNESCO OER Recommendation 2019



SDG 4 (Quality education), SDG 5 (Gender equality), SDG 9 (Industry, innovation and infrastructure), SDG 10 (Reduced inequalities within and across countries), SDG 16 (Peace, justice and strong institutions) and SDG 17 (Partnerships for the goals)

Open Educational Resources (OER)

OER are learning, teaching and research materials in any format and medium that **reside in the public domain** or are under copyright that have been released under an **open license**, that permit **no-cost access, re-use, re-purpose, adaptation and redistribution** by others.

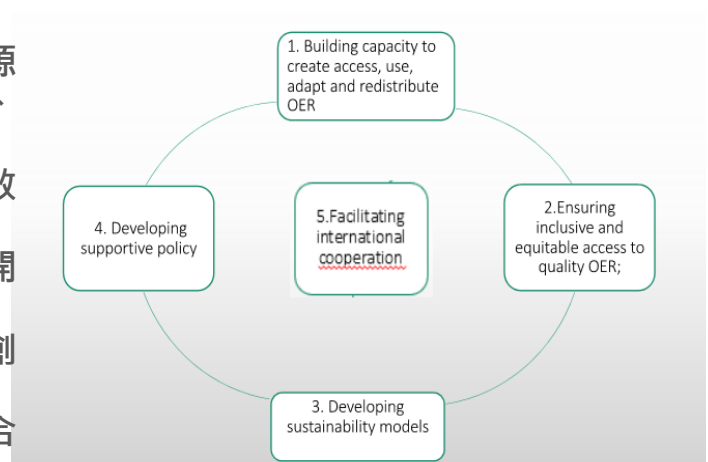


MEMBERS IN TAIWAN

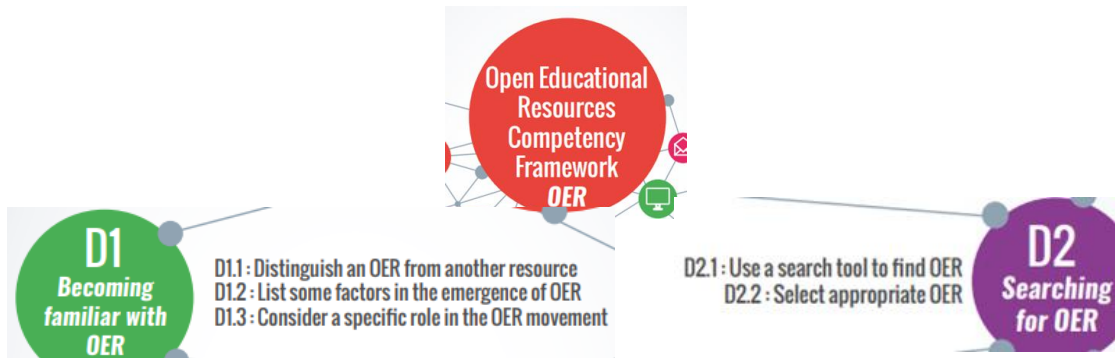
Institutions of Higher Education

Actions

1. 建立各界對於開放教育資源的創造、存取、重複使用、導入與散佈的空間
2. 發展開放教育資源的支援政策
3. 鼓勵具包容與公平質量的開放教育資源
4. 涵養開放教育資源的永續創造模式
5. 強化開放教育資源的國際合作



OERs Competency



<https://unesdoc.unesco.org/ark:/48223/pf0000266161.locale=en>

2012: year of MOOCs 2020: 2nd year of MOOCs

1200+ Universities	80 Providers	1000+ Institutions			
 Harvard University  Stanford University  IIT Kharagpur  MIT  Rice University  IIT Madras  Columbia University  Cornell University  U. of Edinburgh  Purdue University  U. of Pennsylvania  Duke University  U. of Michigan	 Coursera  edX  FutureLearn  DataCamp  Udemy  LinkedIn Learning  Skillshare	 Google  Amazon  Microsoft			
		New Registered Users	2019	2020	Total
			8M	31M	76M
			5M	10M	35M
			1.3M	4M	14M

[classcentral](https://www.classcentral.com/)

Challenges for formal education during the COVID-19 outbreak: Open Education and Open Science for our global society



Responding to the Initial Challenge of the COVID-19 Pandemic: Analysis of International Responses and Impact in School and Higher Education (<https://www.mdpi.com/2071-1050/14/3/1876>)

Challenges for open education during pandemic

MACRO

Missing infrastructure is a macro level factor as the formal education sector was generally not ready to switch to open education by adopting distance education practices

MESO

Access to Open Educational Resources was promoted and facilitated by policies and user communities

MICRO

Teachers and students were required to shift to online mode (emergency remote teaching) and this required developing certain **technological, pedagogical and digital competences**

Responding to the Initial Challenge of the COVID-19 Pandemic: Analysis of International Responses and Impact in School and Higher Education (<https://www.mdpi.com/2071-1050/14/3/1876>)

Conclusions



Economic
Inequities

Cultural
injustice

Political
injustice

Digital divide

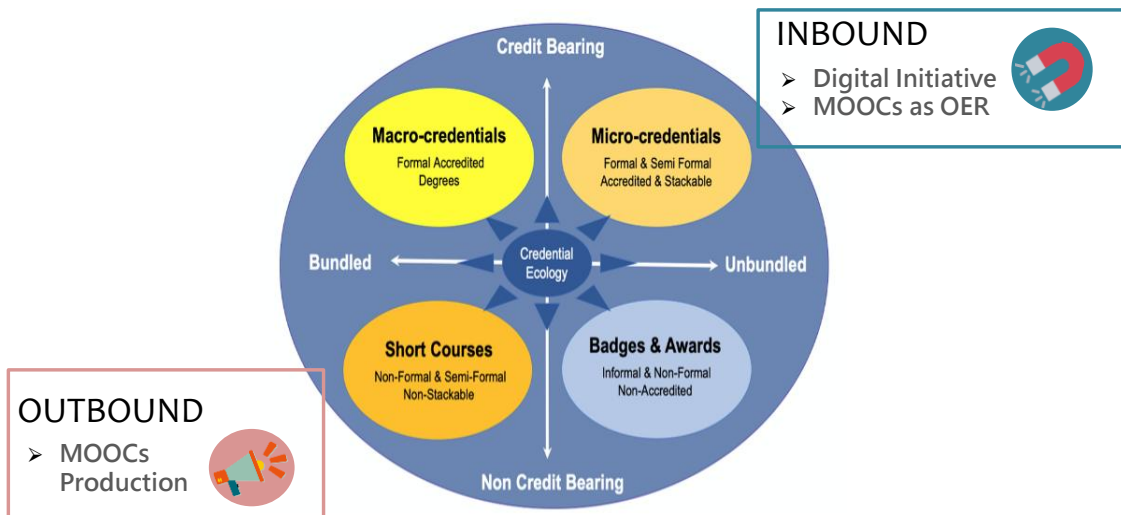


Collaboration
between
teachers

Digital
education

Openness

The evolving credentials landscape for MOOCs



REF: <https://www.futurelearn.com/info/courses/higher-education-certifying-your-future/0/steps/213831>

MOOCs@Taipei Medical University (TMU)

MOOCs Production

- ✓ Courses : >200 (10/year)
- ✓ In English : >50
- ✓ Registration: >300,000

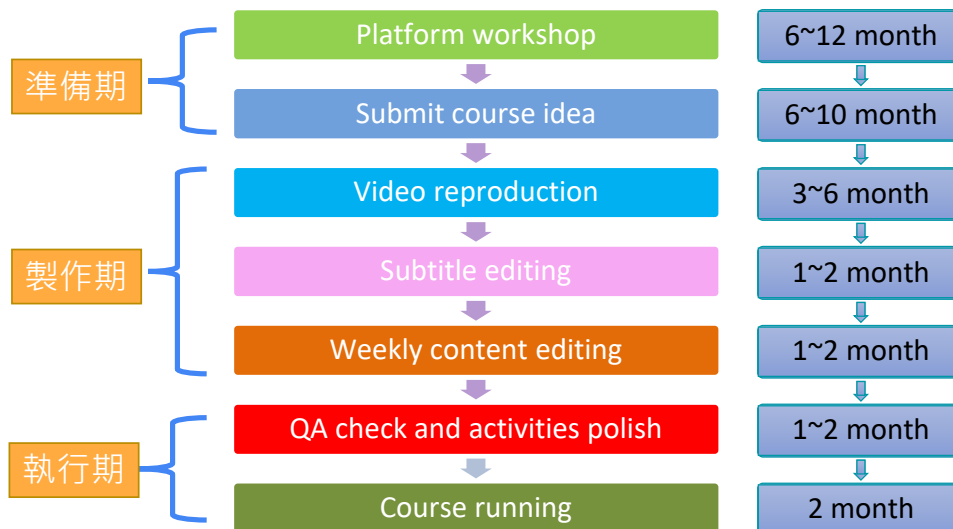
- 2015: Join **FutureLearn** Partner

Flipped-classroom

- ✓ Lung Health
- ✓ Home Caring Skills
- ✓ Herb Medicine
- ✓ Medical Tech.
- ✓ Social Media
- ✓ IOT for Health
- ✓ Pharmacy
- ✓ Statistics
- ✓ Biology
- ✓ English Reading
- ✓ Clinical Skills
- ✓ Translational Medicine



MOOC Production





榮獲推薦為250門史上最佳課程

榮獲國際MOOCs搜尋引擎Class Central肯定



50+免費老年照護線上課程

50+ Free Online Courses to Care for Elderly People

Pat Bowden Jun 7th, 2020



健康物聯網
Internet of Things for Active Aging
營養與健康
Nutrition and Disease Prevention



2022全球最佳250門線上課程

AI and Big Data in Global Health Improvement

Tapei Medical University Via FutureLearn

THE BEST

★★★★★

ONLINE COURSES

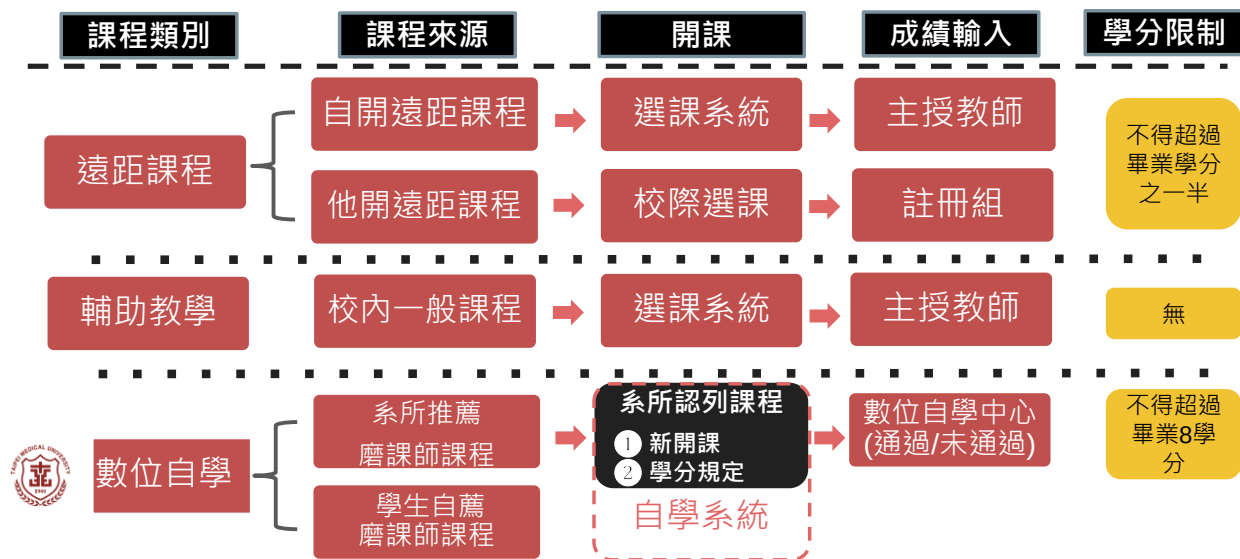
OF ALL TIME



Found in HealthCare Information Courses

全球衛生安全與醫療照護數據分析
AI and Big Data in Global Health Improvement

各類型數位學習課程



建立數位自學制度培養學生終身學習

強化課程連結度提升學習動機



數位自學課程可認列數量



- 1062學期起開辦**全國首創**數位自學制度
- 1082學期因疫情加入國際數位自學資源合作
- 1092學期導入全校Coursera修課方案



coursera

edX

Future Learn



鏈結國際名校
磨課師EMI

- 10000+課程可選

數位自學
證書補助

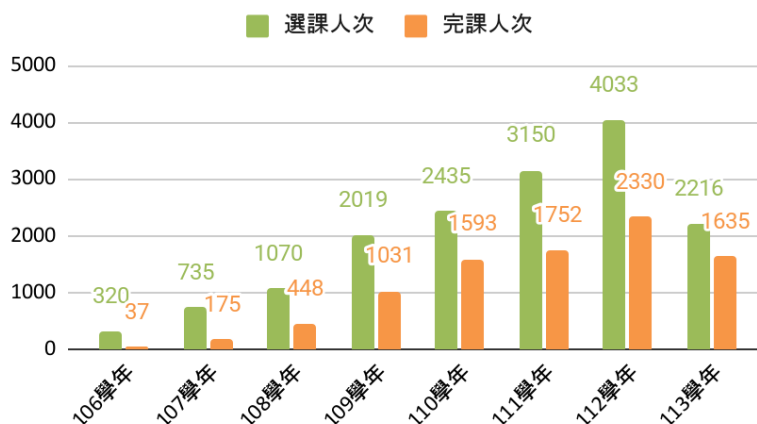
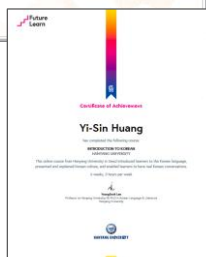
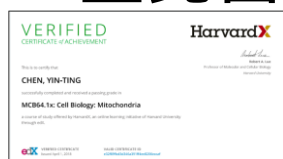
- 校方後臺管理

認列學分

- 畢業8學分

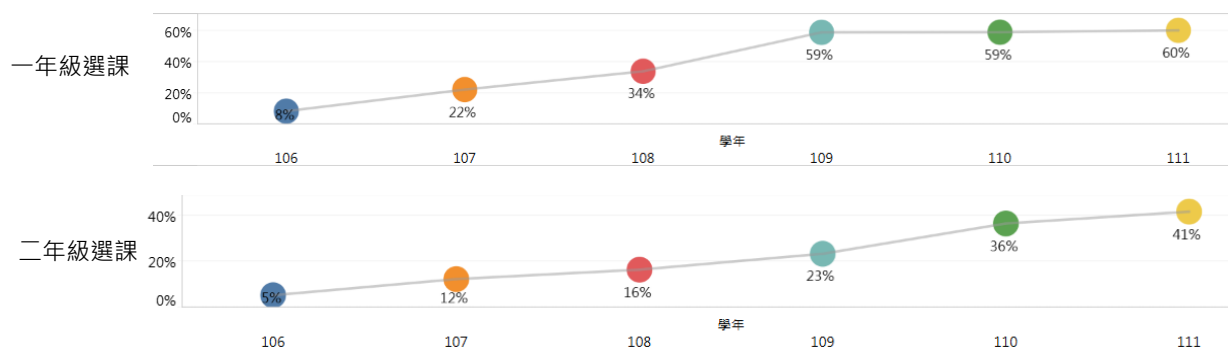
臺北醫學大學-數位自學修課狀況

數位自學選課、完課大學部人次統計



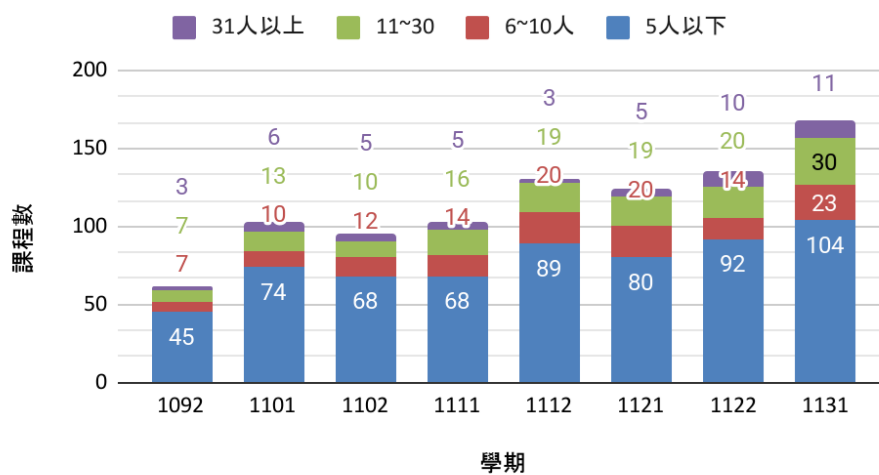
選課學生對於數位自學的認識逐年上升

一年級學生選課比例逐年上升達到60%，表示學生入學後就知道要選數位自學課程的

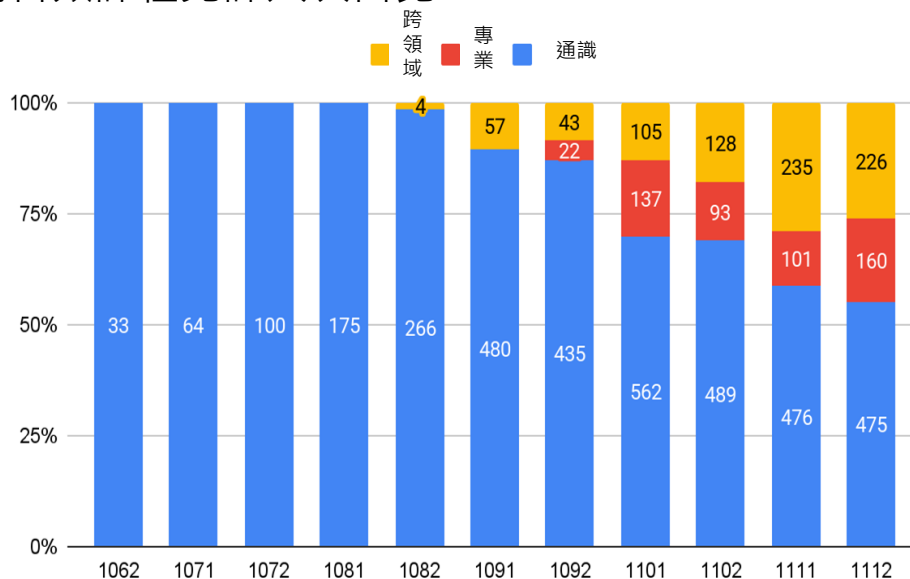


數位自學課程開課數量 VS.完課人次

每學期(數位自學課)開課數量

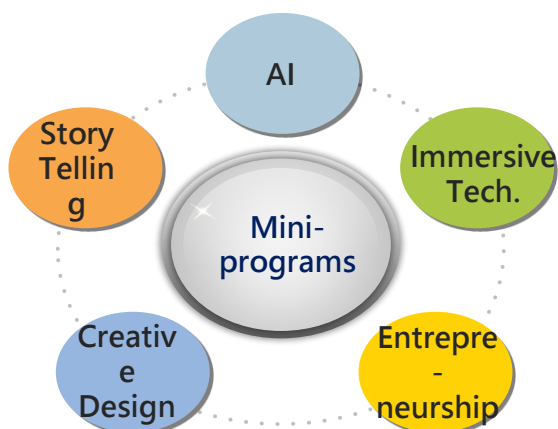


各學期各類課程完課人次占比



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Design micro credential mini-programs with DSL courses from 2019



Mini-Program Certificate





開放教育推動成果-數位自學制度



入圍2022全球開放教育卓越獎



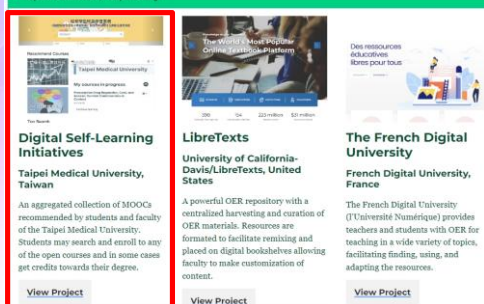
Open Curation / Repository Finalist

榮獲2023臺灣開放教育卓越獎

全國開放數位教學資源運用示範獎

Digital Self-Learning Initiatives

Open Curation / Repository



學校組

全校性「數位自學制度」



利用全球的MOOC課程鼓勵學生自我學習，並且校方接受正式學分的認證，是全臺灣對MOOC課程應用最具創意的教育政策，具有示範引導作用！

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教育部大學聯盟深化 數位學習推展與創新應用計畫 國際導向開放線上教育者聯盟

計畫主持人：臺北醫學大學

共同計畫主持人：臺北醫學大學

朱娟秀 副校長

教務處 曾頌惠 教務長

跨領域學院 張佳琪 院長

國際醫學研究碩博士學程 沈芯仔 主任

教務處 謝坤叡 教務長

教師發展暨教學資源中心 張麗芬 主任

醫學系生化學科 李惠春 副教授

慈濟大學

教務處 呂明偉 教務長

臺灣海洋大學

教務處 黃育賢 教務長

臺北科技大學

教務處 張仁俊 教務長

臺北大學



數位自學遊學營

寒暑假舉辦雲端遊學營，鼓勵學生善用時間數位自學



團隊輔導，加速課程完修

2023/1~2	參與人數 16人	取得證書 29張
2024/1~2	參與人數 97人	取得證書 88張
2024/7	參與人數 69人	取得證書 422張



的課程是哪些What's your favorite (至多選三門)



個人及團體自學達人獎金賽
促進**跨校合作學習**

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跨校數位自學遊學營-回饋單

修課感想

許多補充的資訊及網路資源提供給我們
增強英文聽力與閱讀的能力
 在學習知識之餘，也能提升自己的英文能力
接觸到更多元化的英文課程
 空餘時間可以自主學習
遊學營讓我能够善用零碎時間學習新知
 可以在無學分及時間壓力修習自己有興趣的課程
修完課可以拿到修課證書
 在課堂上學到了很多實用的技巧和知識
 學習平常在生活中不易取得的課程內容
 練習英文的同時學會反思課程內容
 按照自己的步調進行學習
 感覺更能推動自己參加課程

在修課過程中遇到的困難？

詞有些還不太熟
英文需再加強
 的問題不習慣這種上課方式
 語言問題
 英文單字不熟
 有點緊
 最大的困難應該還是英語能力
 語言問題
 英文單字不熟所以一開始很吃力
 主要是語言問題

培育學生數位學習素養

建立【數位學習科技微學程】

基礎



核心



應用

- ✓實體開課：遠距教學課程
- ✓虛擬開課：數位自學課程
- ✓通過學分數：6學分



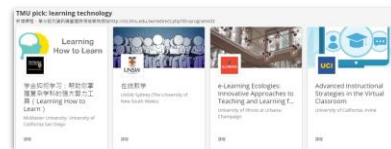
數位教學能力

學習內容製作能力

導入教育部數位學習深耕計畫課程



應用開放教育課程資源

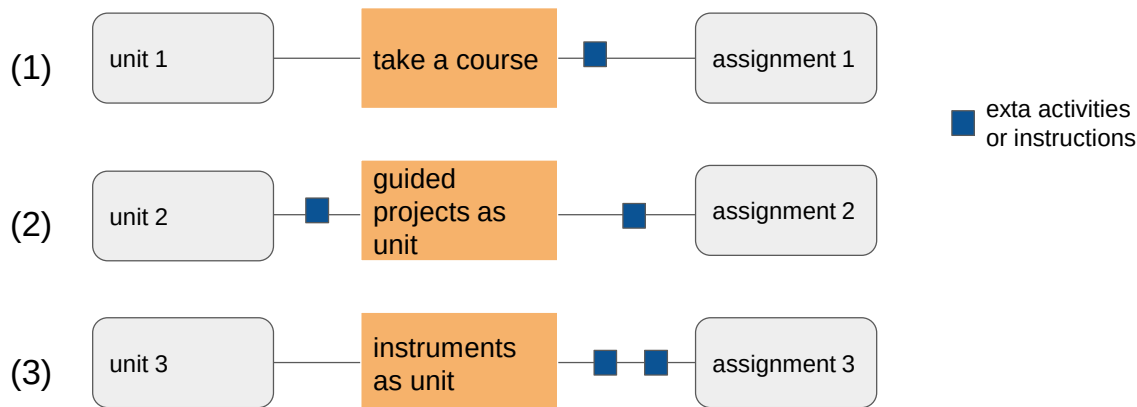


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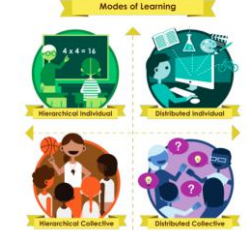
Implementing a Course
through Open
Education Resources



課程融入OERs的設計範例



Course: Practice in Educational Technology

Adopting units		
take a course	guided projects as unit	instruments as unit
Online Courses / Study Skills  A Digital Edge: Essentials for the Online Learner ★★★★☆ 4.7 (145 reviews) Thrive at university and build the skills you need to get the most out of online, digital and hybrid university learning. Join course for free	Use Canva to Design Digital Course Collateral ★★★★★ 4.7 34 ratings · 18 reviews Offered by canva.com project network Go to Guided Project Open for later Reviewed by Topical Media Learning Design an eBook Cover that stands out using Canva ★★★★★ 4.9 44 ratings · 6 reviews Offered by canva.com project network Go to Guided Project Open for later Reviewed by Topical Media Learning	 Modes of Learning Hierarchical Individual Distributed Individual Hierarchical Collective Distributed Collective ©2020, Leaders of Learning Published Richard Evers Page 1 of 3

Course: Practice in Educational Technology

Assignments

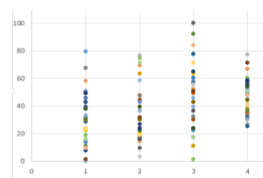
take a course



guided
projects as
unit



instruments
as unit



Reflection

on how to be an online learner

Handy work

get the certificates

fill the form

self-Profiling



單元範例

第一單元、數位學習基本觀念：從了解做一個線上學習者開始



單元學習建議時間：4小時

單元學習目標：

- 能了解作為一個線上學習者所要注意的面向
- 能正確操作FL上的課程學習步驟
- 能反思自己的線上學習狀況

1.	📁 Essentials for the Online Learner - Online Course - FutureLearn	-	閱讀 > 1 分鐘	96%	⋮
2.	📁 繳交FL-Essentials for the Online Learner課程完成畫面證明	2021-03-13	繳交	96%	⋮
3.	💬 第一單元討論題：做一個線上學習者最困難的點	-	回應至少 1 篇	96%	⋮
4.	💬 作業繳交問題補充說明	-	-	-	⋮

Student Evaluation & Comments

result distribution



- Practical!
- Learn a lot!
- Proper design on activities
- During the pandemic, these skills are very useful.
- Great organizing on all units.
- Online group discussions are challenging.

模式一、MOOCs as OERs

Teacher-driven OERs adoption (TMU)



施景文教授

Introduction to Translational Research:
Connecting Scientists and Medical Doctors
Understand the emerging discipline of translational medicine and the process
of taking research from 'benchside' to 'bedside'.

★★★★★ 5.0 (8 reviews) 11,659 enrolled on this course



Tumor molecular biology & microenvironment: current challenges & opportunities in oncology precision therapeutics

Credits : 3

Teaching design : EMI, Synch & Asynch

Graduate School level

Enrollments: 45/semester

Future
Learn

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Teacher-driven OERs adoption (TMU)



王靜瓊教授

Herbology

Credits : 2

Teaching design : Synch & Asynch

Undergraduate level

Enrollments: 428



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Teacher-driven OERs adoption (TMU)



陳玟潔教授

聽孩子的微聲

Credits : 2

Teaching design : Asynch

Undergraduate level

Enrollments: 30/semester

Adopting OERs from Others

- 【Coursera】 Learning How to Learn
- Appointed 3 other FutureLearn or Coursera MOOCs

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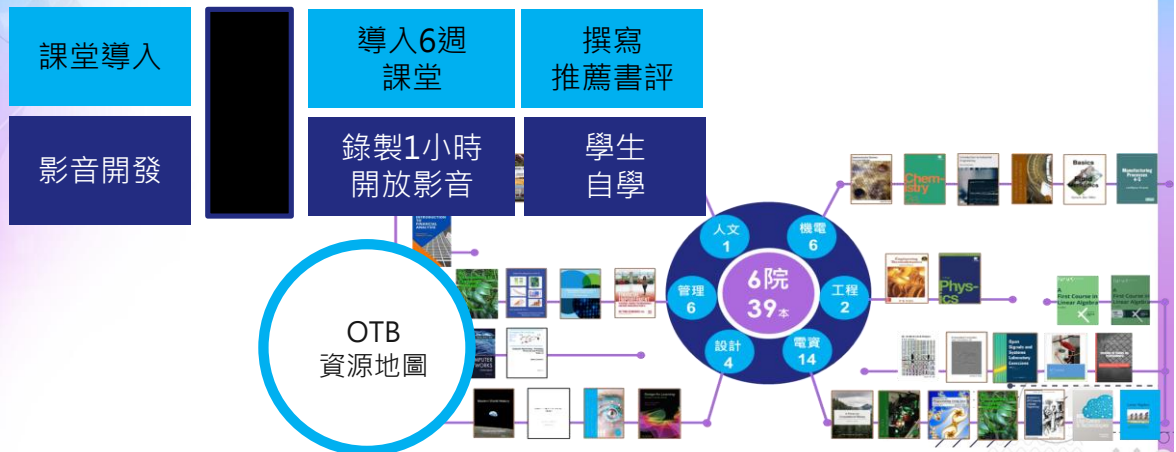
模式二、OTB as OERs

開放教育資源融入實體教學

IOOOI 聯盟
International Oriented Open Online Instructors

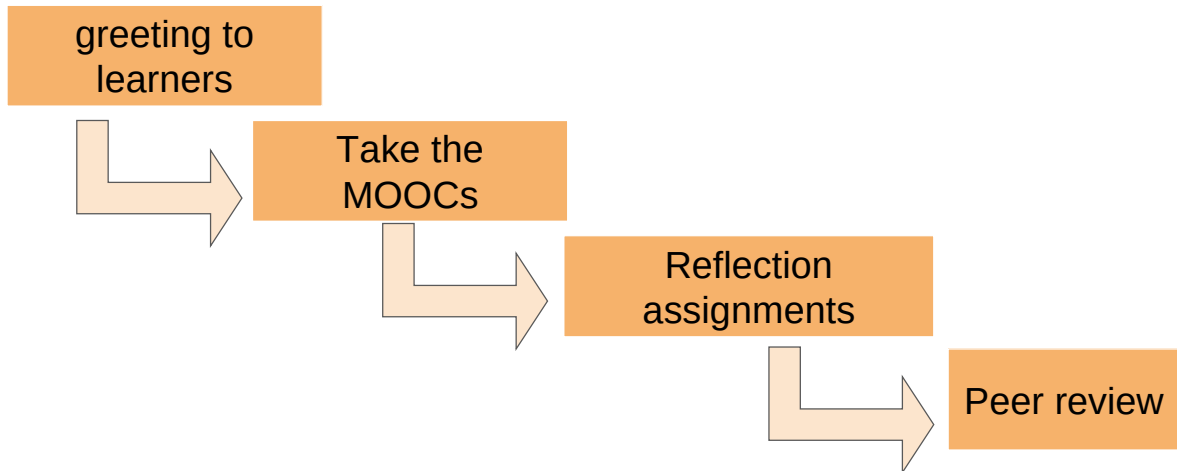


開放教科書(Open Textbook) 導入課堂



模式三、跨校遠距課程vs. MOOCs

Course design



Cultivating innovation & entrepreneurship creativity workshop

- 100 enrollments / univ.
- Free to exchange credits



Prof. Eliza Hsu

創新創業創造力養成工作坊# (XD500081)

課程管理 / 創新創業創造力養成工作坊#

最新公告

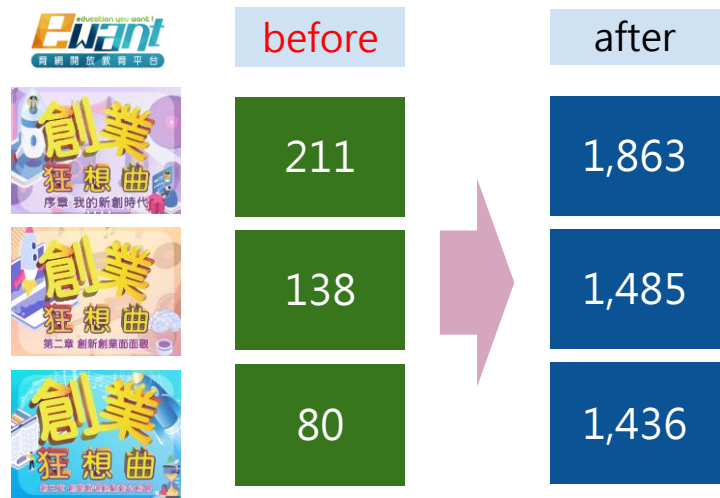
- 1. 進度提醒：作業繳交截止日為5/29 05-01 05-27 繳交第一門課學習進度
- 2. 第一個作業開放提交，尚未交作業的... 04-01 05-27 繳交第二門課學習進度
- 3. 關於需繳納課程學習進度繳交狀況提醒 03-28 05-27 繳交第三門課學習進度

最近事件

課程活動

標題	期限	完成條件
課程介紹		
請先點本版MENU的課程資訊說明		
本課程重點要求：		
1. 註冊EWANT上「指定」的三門MOOCs課程		
2. 在EWANT上完成上述三門課程學習		
3. 依據作業說明繳交至本課版(M)並完成互評		
本課程若由疑問請與葛老師聯絡: wanhssu@tmu.edu.tw		
1. 上傳EWANT註冊畫面	03-31	繳交 85%
2. 課程執行問題詢問	-	- -

Enrollments of MOOCs: before & after



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Cross-University Enrollments

每校開放100位學生選修課程

	spring 2023	fall 2023	spring 2024	fall 2024	總計
台北大學	55	2	53	80	190
台北科技大學	50	1	0	95	146
國立海洋大學	97	100	99	82	378
其他學校	0	7	0	0	7
臺北醫學大學	121	243	157	199	720
Total	323	353	309	456	1441

More Courses...

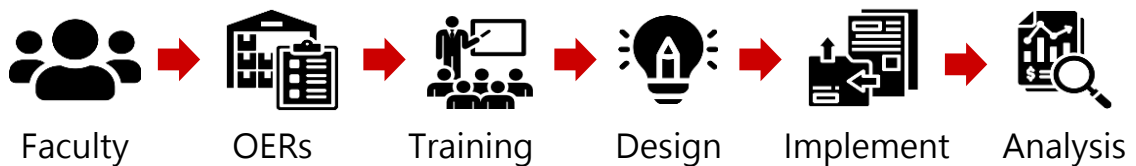


Course	Lead Lecturer	enroll	MOOCs	Credits
Introduction to basic nutrition & food safety	Dean Hsieh	488	4	2
Introduction to green living & conservation	Dean Chen	382	2	1
Introduction to blue planet sustainability	Dean Chen	396	2	1

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Strategy of Facilitating Faculty Collaboration

How to adopt OERs into courses?



Orientation, Templates, Support & communication

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共好

鼓勵合作教師使用聯盟開放教育資源

 國立東華大學 白益豪老師 導入大學部三年級課程 「光電科技與能源漫談」  學期：112-2 學分數：2 導入週數：7週 授課方式：混成教學 選修人數：30人	 國立高雄師範大學 許惇偉老師 導入研究所一年級課程 「生物醫學研究」  學期：113-1 學分數：3 導入週數：6週 授課方式：混成教學 選修人數：6人	 國立臺灣大學 郭安妮老師 導入大學部一年級課程 「土木工程概念設計」  學期：113-1 學分數：2 導入週數：3週 授課方式：混成教學 預計選修人數：17人
 國立臺灣師範大學 蘇純立老師 導入大學部四年級課程 「臨床營養」  學期：113-1 學分數：2 導入週數：2週 授課方式：混成教學 選修人數：30人	 長庚科技大學 施福忠老師 導入二技一年級課程 「健康資訊管理」  學期：112-2 學分數：2 導入週數：4週 授課方式：混成教學 選修人數：41人	 明新科技大學 余沛鏞老師 導入四商二甲課程 「科技輔助外語教學」  學期：113-1 學分數：2 導入週數：4週 授課方式：混成教學 預計選修人數：44人

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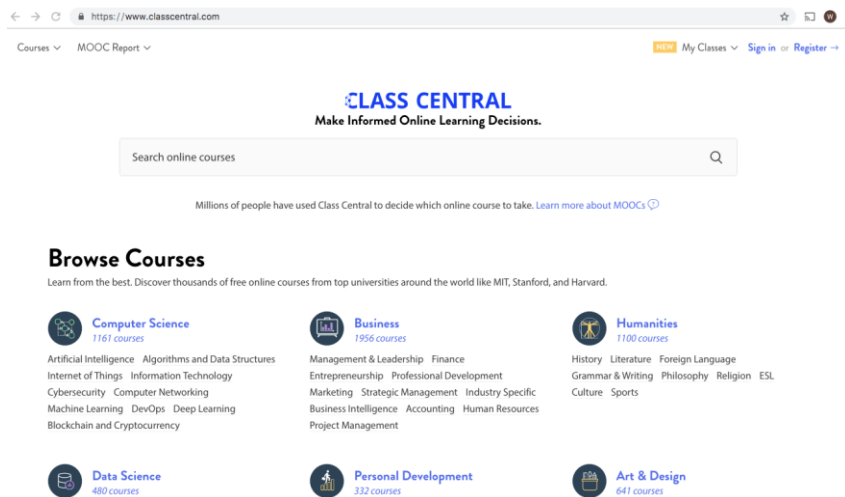
The Questions...

Why should I design a course through OERs?

Is it ethical/legal to use other's OER into a course?

How many efforts should I pay to use OERs into a course?

Take home message: How to find a MOOC?



The screenshot shows the Class Central website homepage. At the top, there's a navigation bar with links for Courses, MOOC Report, My Classes, Sign in, and Register. The main header features the Class Central logo and the tagline "Make Informed Online Learning Decisions." Below this is a search bar labeled "Search online courses". A message states "Millions of people have used Class Central to decide which online course to take. [Learn more about MOOCs](#)". The "Browse Courses" section is highlighted, with a sub-header "Learn from the best. Discover thousands of free online courses from top universities around the world like MIT, Stanford, and Harvard." Below this, six course categories are listed with icons, names, and course counts:

- Computer Science** (1161 courses): Artificial Intelligence, Algorithms and Data Structures, Internet of Things, Information Technology, Cybersecurity, Computer Networking, Machine Learning, DevOps, Deep Learning, Blockchain and Cryptocurrency.
- Business** (1956 courses): Management & Leadership, Finance, Entrepreneurship, Professional Development, Marketing, Strategic Management, Industry Specific, Business Intelligence, Accounting, Human Resources, Project Management.
- Humanities** (1100 courses): History, Literature, Foreign Language, Grammar & Writing, Philosophy, Religion, ESL, Culture, Sports.
- Data Science** (480 courses):
- Personal Development** (332 courses):
- Art & Design** (641 courses):

Thank you for your attention.