

全球虛擬教室課程 開課指引

Guidelines for Offering Global Virtual Classroom Courses

教務處網路大學辦公室

NTNU Online

2024 年 12 月

Dec. , 2024

壹、全球虛擬教室課程開課指引

A. Guidelines for Offering Global Virtual Classroom Courses

全球虛擬教室

Global Virtual Classroom

本校教師與海外夥伴學校教師遠距合作教學，上課方式強調雙方師生互動討論、意見交流與合作學習，以提供本校學生與海外學生共同學習之經驗。

■ 海外夥伴學校

Overseas Partner Institutions

- 線上學習

Online Learning

- 互動討論

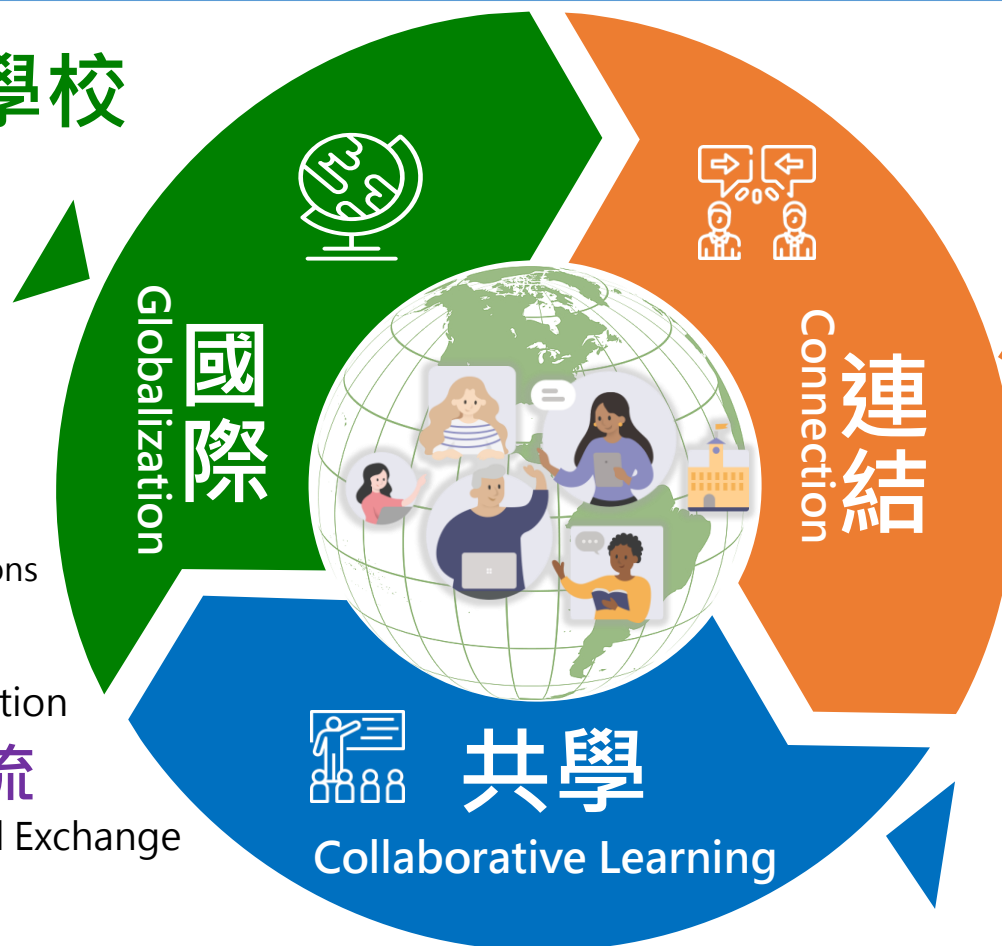
Interactive Discussions

- 分組合作

Group Collaboration

- 跨國交流

International Exchange



■ 學習新體驗

跨越時空、語言、文化

Learning New Experiences Across Time, Language, and Culture

■ 優勢領域課程

Courses in Specialized Fields of Excellence

- ◆ 洽詢專線：分機5504 /
Email: ipeggy233@ntnu.edu.tw
- ◆ Inquiry hotline: Extension 5504

全球虛擬教室課程獎勵

Incentives for Global Virtual Classroom Courses

獎勵額度 Incentives

同步合作教學總時數

- ✓ 達 **3** 小時，且連線至少 **2** 週次者，
新臺幣 **1** 萬 元
- ✓ 達 **6** 小時，且連線至少 **4** 週次者，
新臺幣 **2** 萬 元
- ✓ Total synchronous collaborative teaching hours reaching **3** hours and the sessions span at least **2** weeks : NT\$ **10,000**
- ✓ Total synchronous collaborative teaching hours reaching **6** hours and the sessions span at least **4** weeks : NT\$ **20,000**

獎勵對象 Target Recipients

本校教師

(語言學習類、個別指導課程、講座式課程不適用)

NTNU Faculty Members

(Language learning courses, individual instructional courses, and seminars are not applicable.)

申請時間 Application Period

- ✓ 上學期：約9月
- ✓ 下學期：約2月
- ✓ Fall Semester: around September
- ✓ Spring Semester: around February

No Language Restrictions, 不限授課語言

No Partner Institutions, 不限海外姊妹校

No Reimbursement Required for Incentives! 獎勵金免核銷



規劃屬於您的全球虛擬教室課程

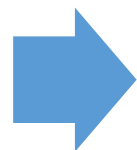
Planning Your Global Virtual Classroom Courses



與海外大學線上同步合作教學建議步驟

Suggested Steps for Synchronous Collaborative Teaching with Overseas Partner Institutions

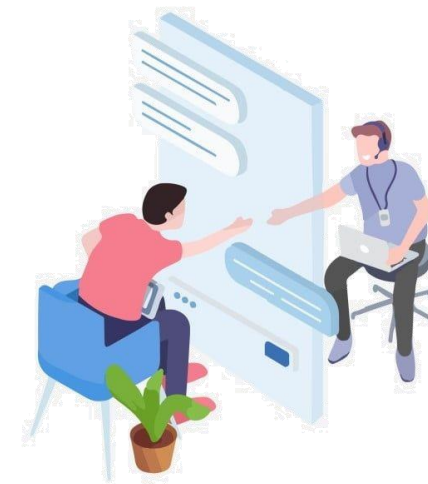
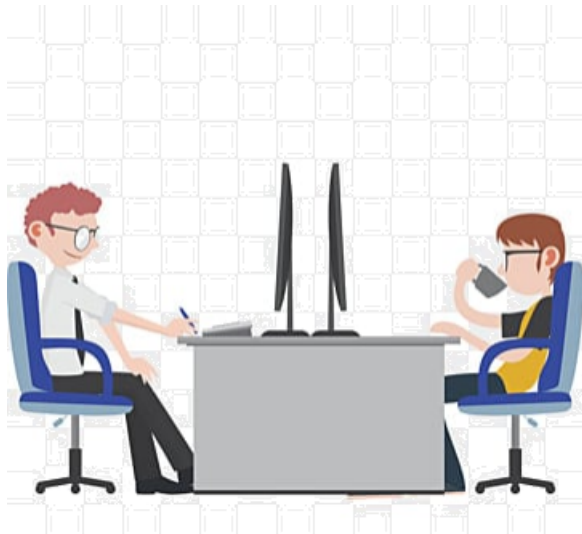
事前準備
Preparation



實際授課
Teaching



課後檢討
After-Class Self-Reflection



與海外大學線上同步合作教學建議步驟

Suggested Steps for Synchronous Collaborative Teaching with Overseas Partner Institutions

事前準備

Preparation

與夥伴學校教師同步合作教學討論事項

To Discuss with the Co-teacher of Overseas Partner Institutions

1. 課程主題/領域 Course Subject/ Areas

2. 開課時間 Time

- ✓ 哪一學期開課？ Which semester?
- ✓ 同步合作教學幾週次？
How many times do you co-teach?
- ✓ 是否有時差問題？ Issue of time difference
- ✓ 每次連線日期及連線時間長度
Dates and time period for co-teaching

3. 同步教學工具 Synchronous Teaching Tool

- ✓ Google meet
- ✓ Webex

4. 設計教學活動 Design Teaching Activities

- ✓ 破冰活動 Icebreaker activities
- ✓ 分組討論 Group discussions

5. 執行連線測試 Conducting Connection Tests

6. 學生是否有程度上差異？

Variations in Student Proficiency Levels

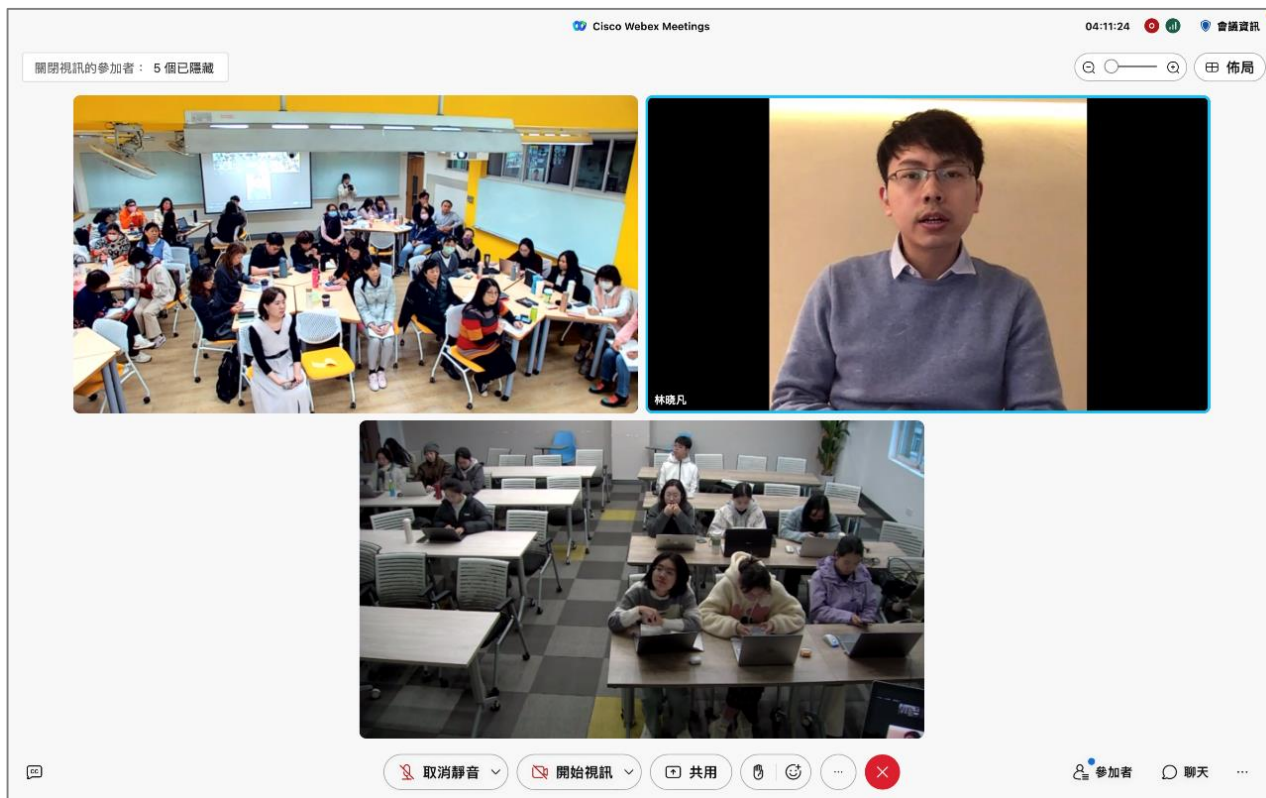
與海外大學線上同步合作教學建議步驟

Suggested Steps for Synchronous Collaborative Teaching with Overseas Partner Institutions

實際授課
Teaching

克服同步視訊軟體適用區域差異問題

Overcoming Regional Differences in the Applicability of Synchronous Teaching Software

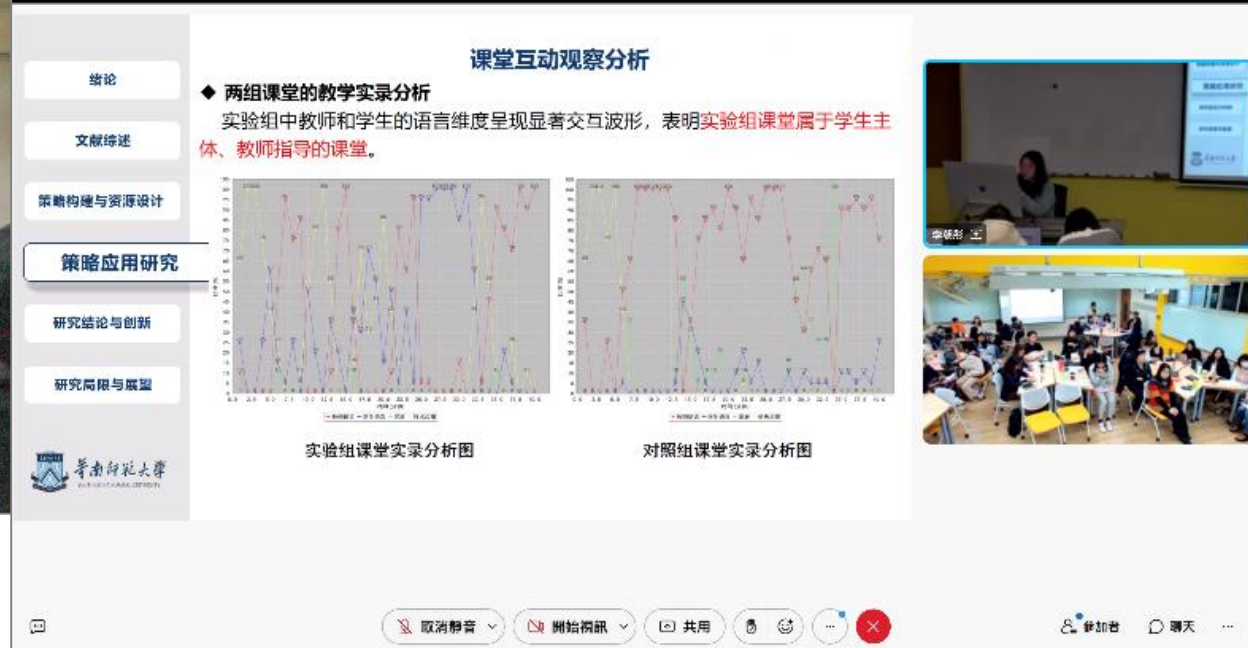


與海外大學線上同步合作教學建議步驟

Suggested Steps for Synchronous Collaborative Teaching with Overseas Partner Institutions

實際授課
Teaching

隨時滾動修正
Continuous Adjustments

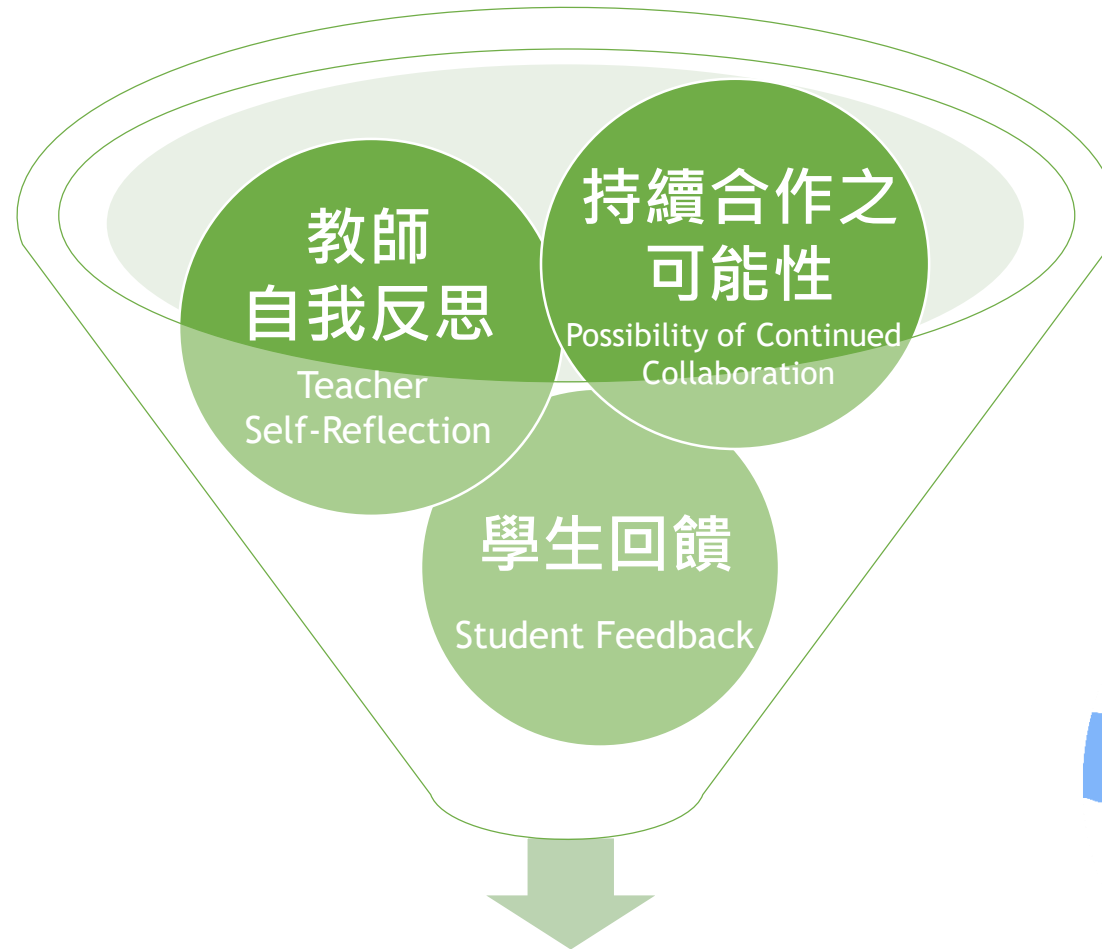


與海外大學線上同步合作教學建議步驟

Suggested Steps for Synchronous Collaborative Teaching with Overseas Partner Institutions

課後檢討

After-Class Self-Reflection



跨國線上教學開創全球化學習

Cross-Border Online Teaching Opens New Paths for Globalized Learning



貳、本校數位教學資源

B. Online Teaching Resources at NTNU

同步教學軟體

Synchronous Teaching Software



- ◆ 詳見網大辦公室網站
《同步教學工具便利包》
- ◆ More information:
<https://www.co.ntnu.edu.tw/index.php/gcm/>

教師免費申請、線上操作手冊、專人諮詢服務

Free application for teachers, online manuals, dedicated consultation services



軟體 Software	Google Meet (upgrade version)	Cisco Webex Meetings	Microsoft Teams
帳號與登入 Account and login	教師： 啟用 並 登入 師大G Suite 學生：須登入 Faculty: Enable and log in to G Suite for NTNU Students: Must login	教師：申請 本校管理之帳號 學生：不用註冊 Faculty: Apply for an account managed by NTNU Students: No registration required	課程：師生用NTNU帳號 @eduard.ntnu.edu.tw 登入 會議：教師須登入 Course: Teachers and students can log in with NTNU account @eduard.ntnu.edu.tw Meetings: Teachers must log in
最大連線數 Maximum number of members	250p	1000p for NTNU	300p

- ◆ 洽詢專線：分機5578
- ◆ Inquiry hotline: Extension 5578.

非同步教學 — 教學影片錄製軟體

Asynchronous Teaching: Video Recording Software

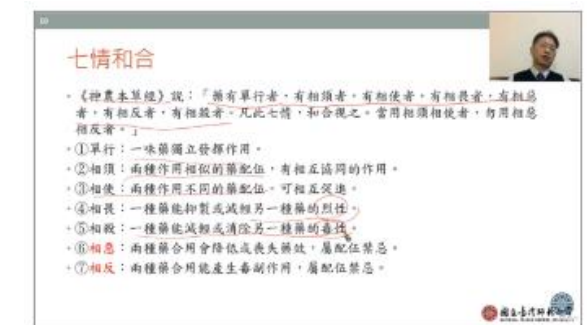
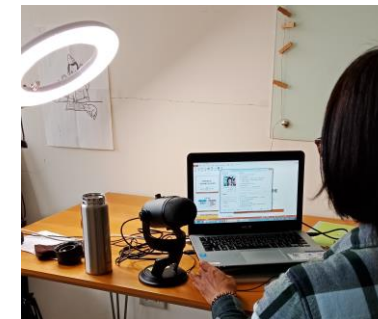
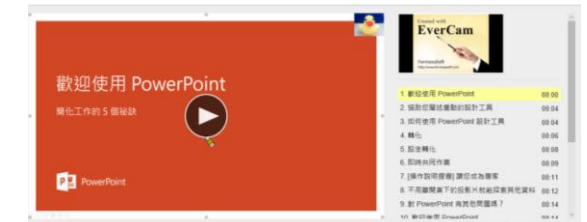
• 運用EverCam錄製

教師以平時講課般方式錄製上課內容（含講師影像與聲音、簡報畫面、滑鼠位置及索引標籤等），輕鬆製作專業教學影片。

• Recording with EverCam

Teachers can easily make professional teaching videos by delivering lecture content (including the lecturer's video and sound, presentation screen, cursor position, and index labels, etc.) as they would in a normal lecture.

- ◆ EverCam申請網址 / Apply for EverCam : <https://forms.gle/XzS3YYvDYQJ7VAZBA>



楊秉煌助理教授/華語文教學系

• 運用Google Meet、Microsoft Teams錄製

運用同步軟體錄影功能進行課程錄製。

• 運用手機錄製

適合口述講解、實作及板書課程。

• Recording with Google Meet、Microsoft Teams

Uses the synchronous software recording function to record courses.

• Recording with mobile phone

Suitable for oral explanation, practical, and blackboard writing courses.

- ◆ 洽詢專線：分機5578
- ◆ Inquiry hotline: Extension 5578

Moodle教學管理平台 – 3.7版

Moodle LMS 3.7 Version

109-2全面升級-參與互動、自主學習
Comprehensive upgrade - participate and interact, self-learning

教學功能再升級 Teaching functions have been upgraded

- 響應式設計
- 即時影音錄製
- 學習檢核機制
- 線上批改PDF檔案作業
- 新增測驗拖放題型
- 線上點名
- 討論區議題置頂標記
- 提高資安強度
- Responsive Web Design
- Immediate video recording
- Learning evaluation mechanism
- Online correction of assignments (in PDF format)
- Added drag-and-drop questions in tests
- Online attendance
- Pinning at top of discussion forum
- Enhanced information security



◆ 洽詢專線：分機5673 / Email: ellearn@ntnu.edu.tw
◆ Inquiry hotline: Extension 5673.

數位教學設計協助

Online Curriculum Design Assistance

◆ 教學單元設計 (2或3小時) Curriculum Unit Design (2 or 3 hrs)

1

主要教材

Primary course materials

非同步

Asynchronous teaching

- 錄製講解影片 (EverCam)
Filming of introductory video
- 教材簡報檔
Presentations
- 其他指定閱讀教材
Other designated reading materials
- 課程活動
Course Activities

同步視訊

Synchronous teaching

- 教師引導教學
Guided teaching
- 學生個人報告
Individual reports
- 引導式討論
Guided discussion
- 小組討論+師生回饋
Group discussion + Teacher and student feedback
- 即時評量或測驗
Real-time evaluations or tests

2

課後作業

After-school assignments

- 指定作業 (影音/文字檔案)
Designated assignments (audio, video, or text files)
- 課後討論區發表+師生互動
After-class discussion board posts + Teacher-student interactions
- 影片觀看心得感想
Video watching assignments
- 評量、小測驗
Evaluations and tests

- ◆ 線上辦公室時間 Office Hour 1小時
- ◆ 線上公佈欄發布訊息
- ◆ Online office hours (1 hr)
- ◆ Posts on the online notice board

3

補充教材

Supplemental learning materials

- 課後影片學習
Watching of supplemental videos
- 參考文獻閱讀
Reading of reference material

- ◆ 洽詢專線：分機5504
- ◆ Inquiry hotline: Extension 5504.

- ◆ 優秀作品觀摩
- ◆ 實體/同步課程檢討會
- ◆ Mutual learning through student works
- ◆ Meetings for course evaluation

- ◆ 洽詢專線：分機5577/ Email: eshozhao@ntnu.edu.tw
- ◆ Inquiry hotline: Extension 5577

全球虛擬教室 Global Virtual Classrooms



自動追蹤攝影機、無線麥克風、多螢幕、活動桌椅

Automatic tracking cameras, wireless microphones, multiple screens, movable tables and chairs.

可借用之全球虛擬教室包括誠 104、誠 105、誠 106、正 101、正 102等教室，方便教師進行遠距連線、課程錄製及分組討論教學，如有使用需求，敬請依循一般開課流程向教務處課務組進行申請

PBL classrooms, including Cheng 104, Cheng 105, Cheng 106, Jheng 101, Jheng 102, facilitate instructors in conducting distance teaching, course recordings, and group discussion activities. If there is a need for use, please follow the course application procedures and apply to NTNU Curriculum Division.

正102 Classroom Jheng 102

— 雷射投影機 Laser projectors —



— 自動追蹤攝影機 Automatic tracking cameras —



數位教學專業空間

Professional Online Teaching Facilities

- ◆ 洽詢專線：分機5577/ Email: eshozhao@ntnu.edu.tw
- ◆ Inquiry hotline: Extension 5577

數位教學工作室—攝影棚

NTNU Online Studio: Recording studio

由網路大學辦公室同仁操作攝影機、導播機等錄影器材，進行棚內數位課程影片拍攝。

NTNU Online staff operate the camera, production switcher, and other recording equipment to complete course recordings in the studio.



設備器材

- 數位影音導播機、綠幕背景
- 高畫質攝影機
- 無線收音麥克風
- 筆記型電腦、無線簡報器
- 外接42吋螢幕
- 架設環境光源等燈具

Equipment

- Digital video production switcher, green screen background
- High-definition camera
- Wireless microphone
- Laptop, wireless presentation device
- External 42-inch monitor
- Setup of lighting for filming

數位教學專業空間

Professional Online Teaching Facilities

- ◆ 洽詢專線：分機5577/ Email: eshozhao@ntnu.edu.tw
- ◆ Inquiry hotline: Extension 5577

數位教學工作室—同步教室 NTNU Online Studio: Classroom for synchronous teaching

線上即時同步課程空間；教師亦可於平日借用，進行數位課程影片的錄製。
Teachers can also borrow the space on weekdays to record online course videos.



進行同步數位教學

使用視訊會議軟體進行遠距線上同步數位教學之授課空間

進行非同步數位教學

使用課程錄影軟體進行非同步數位教學影片之錄影

設備器材

- 筆記型電腦
- 高畫質視訊攝影機
- 收音麥克風
- 外接液晶螢幕顯示器
- 攝影棚燈含柔光罩
- 無線網路WIFI基地臺

Conducting synchronous teaching

Teaching space for synchronous teaching using video conferencing software

Conducting asynchronous teaching

Recording of asynchronous course videos using course recording software

Equipment

- Laptop
- High-definition conferencing camera
- Microphone
- External LCD monitor
- Studio light and light diffuser
- Wireless access point (WAP)



歡迎踴躍加入開設全球虛擬教室課程行列

Welcome to Join the Ranks of Those Offering Global Virtual Classroom Courses!