

國立陽明交通大學遠距教學課程－教學計畫大綱
The Teaching Plan for Distance Learning Courses of National Yang Ming Chiao Tung University

填表說明：

Description:

1. 開授遠距教學課程，應由開課單位擬具教學計畫，依課程規劃及研議程序辦理，經教務相關之校級會議通過後實施；本教學計畫大綱會上傳至教育部「大學校院課程網」。
The teaching plan for a distance learning course should be made by the course provider, based on the curriculum plan and study procedures, and then be submitted to a university-level meeting related to academic affairs for approval before the course can be conducted. It will be uploaded to the "University Curriculum Website" of the Ministry of Education.
2. 同一教師不得針對課程名稱或性質相近之課程再次申請授課時數加計。
Teachers are not allowed to apply for additional teaching hours again using their courses with similar titles or natures.

開課期間：_____113_____學年度 第_____1_____學期

Course Period: _____ Semester of Academic Year _____

- 首次開設之「遠距課程」：☒是(請續勾選下題一或題二) ☐否(以下免勾選)

Offering the "Distance course" for the first time:

☐Yes (please check the boxes in Table 1 or 2 below) ☐No (no need to check the following boxes)

- 請教師先確認本次申請加計 1.5 倍之課程 ☐是 ☒否 為「課程名稱」或「性質相近」之課程

(不申請加計 1.5 倍者免填)

Please confirm that the course for which you are applying for 1.5 times teaching hours this time is a course of the same "course name" or of "similar nature" (yes or no)

(if not applicable, there's no need to check the boxes below)

- 1、此為上或下學期首次開設遠距課程，是否要申請加計授課時數 1.5 倍：☒要申請 ☐不申請

This is the first time you're offering a distance course in the first or second semester. Do you need to apply for 1.5 times teaching hours: ☐Yes ☐No

- 2、此為暑期首次開設遠距課程，是否要申請加計授課時數 1.5 倍：(非暑期課程免填)

This is the first time you're offering a distance course in the summer term. Do you need to apply for 1.5 times teaching hours: (if not applicable, there's no need to check a box below)

☐要申請(不支領暑期授課鐘點費，改列計為次學年授課時數加計 1.5 倍)

☐Yes (I don't want to get paid for the summer course. Instead, I'd like to have it credited to the teaching hours in the following academic year.)

☒不申請

☐No

壹、課程基本資料 (有包含者請於□打✓)

1. Basic information (Check a box if applicable)

1	課程名稱 Course name	開發智慧照護新藍海
2	課程英文名稱 Course name in English	Exploring a new blue ocean through the development of smart care
3	永久課號 Permanent Course ID	NSCN30089
4	當期課號 Course Number	131714
5	教學型態 Teaching style *本校遠距教學課程定義： *NYCU's definition of a distance learning course: (1) 係指本校修課學生皆以遠距線上方式進行學習之課程。 A courses that is delivered remotely, meaning that students receive instruction online. (2) 遠距(同步及非同步)授課時數超過總授課時數二分之一。 A course in which distance learning sessions (synchronous and asynchronous) account for more than half of its total teaching hours.	<input type="checkbox"/> 非同步遠距課程 Asynchronous distance course <input checked="" type="checkbox"/> 同步遠距課程 Synchronous distance course 請填列本校課程主播而外校收播之校名與系所：(無則免填) If the course is broadcast by NYCU while received by other university, please fill in its name and department: (if not applicable, leave it blank) 外校名稱：_____ 外校系所：_____ Name of the other university: _____ Name of the department: _____ *與國外學校有合作遠距課程，請填列(無則免填)： Please list the cooperative distance courses you're having with a foreign university (if not applicable, leave it blank): 國外合作學校與系所名稱：_____ Name of the foreign university and its department : _____ <input type="checkbox"/> 國內主播 Course offered and broadcast by NYCU <input type="checkbox"/> 境外專班 Overseas Master Degree Program offered by NYCU <input type="checkbox"/> 雙聯學制 Dual Degree Program <input type="checkbox"/> 其他 Others
6	授課教師姓名及職稱 Name and position of the teacher	(1) 姓名 Name：i 孫家偉 教授；ii 孫秀卿 教授；iii 陳俞琪 教授；iv 陳榮治 副教授；v 楊曼華 副教授；vi 石紀 博士 (2) 職稱 Position：i 生醫工程研究所所長；ii 臨床護理研究所所長；iii 臨床護理研究所；iv 生醫工程研究所；v 臨床護理研究所；vi 領証生醫股份有限公司 總經理
7	開課單位名稱(或所屬學院及科系所名稱) Name of the course provider (or the college and department)	主開系所 Main department offering the course： 臨床護理研究所 輔開系所 Department(s) offering assistance： 生醫工程研究所

8	課程學制 Course structure	<input checked="" type="checkbox"/> 學士班 Bachelor's Degree Program <input checked="" type="checkbox"/> 碩士班 Master's Degree Program <input checked="" type="checkbox"/> 碩士在職專班 In-service Master's Program <input checked="" type="checkbox"/> 博士班 PhD Program <input type="checkbox"/> 學位學程 (<input type="checkbox"/> 四年制 <input type="checkbox"/> 碩士班 <input type="checkbox"/> 博士班) Degree program (<input type="checkbox"/> 4-year program <input type="checkbox"/> Master's program <input type="checkbox"/> PhD Program) <input type="checkbox"/> 學分學程 Credit program
9	科目類別 Subject Type	<input type="checkbox"/> 共同科目 Common Subject <input type="checkbox"/> 通識科目 General Education Subject <input type="checkbox"/> 校定科目 NYCU-determined Subject <input checked="" type="checkbox"/> 專業科目 Professional Subject <input type="checkbox"/> 教育科目 Educational Subject <input type="checkbox"/> 其他 Others
10	選課別 Course Type	<input type="checkbox"/> 必修 Required <input checked="" type="checkbox"/> 選修 Elective <input type="checkbox"/> 其他 Others
11	學分數 No. of Credits	三學分
12	每週上課時數 No. of teaching hours per week	每週二 9、a、b 下午 17:30 – 20:30 *每週上課時數：同步遠距課程請填入每週「面授」及「同步」之合計上課時數。若無法界定每週時數，填入每週平均時數（即學期總「面授」+「同步」時數除以總課程週數）；非同步遠距教學，請填平均每週非同步授課時數。 *Teaching hours per week: For synchronous distance learning, please fill in the total hours of "face-to-face" and "synchronous" teaching sessions per week. If the teaching hours cannot be calculated, just fill in the average number of hours per week (total hours of "face-to-face" + "synchronous" sessions divided by the total number of the course weeks); for asynchronous distance learning, please fill in the hours of asynchronous teaching sessions per week.
13	開課班級數 No. of classes	開放碩博士生、學士班高年級選修
14	預計總修課人數 Expected No. of students taking the course	20 位
15	全英語教學 Course taught in English only	<input type="checkbox"/> 是 Yes <input checked="" type="checkbox"/> 否 No
16	課程平臺網址（非同步教學必填） Course platform website (required for asynchronous teaching)	<input type="checkbox"/> E3 非同步遠距教學 E3 Asynchronous distance learning course <input checked="" type="checkbox"/> E3 同步遠距教學 E3 Synchronous distance learning course <input type="checkbox"/> E3&CS100 教室(同步) E3 & CS100 classroom (synchronous) <input checked="" type="checkbox"/> 其他 Others：_WEBEX / GOOGLE MEET

貳、課程教學計畫

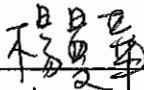
2. The Teaching Plan

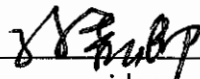
1.	教學目標 Teaching objectives	1. 學生嘗試以社會需求為核心，期待掌握臺灣未來極可能出現的重大社會議題，透過「整體全局性」的規劃思維，提出有效的創新科技。 2. 由臨床照護需求為起點，透過照護和資訊科技的專業評估，個人及團隊能學習到如何進行創新的討論和思考。 3. 透過臨床需求問題，進行醫療與工程的對話，藉由跨領域的團隊合作來達成創新醫療器材來解決臨床的需求。 4. 分組組成跨專業團隊進行課程，透過發掘問題、了解問題，學習針對問題去尋求最適切的解決方案。 5. 學習創新這個反覆重覆的過程，並在其中學習到承擔風險，並從失敗中學到經驗																														
2.	適合修習對象 Target students	開放碩博生、學士班高年級選修																														
3.	課程內容大綱 Course outline	(請填寫每週次的授課內容及授課方式；授課方式請填時數) (please fill in course contents and teaching method for each week; fill in number of teaching hours for the teaching methods) <table border="1" data-bbox="483 1323 1407 2103"> <thead> <tr> <th data-bbox="483 1323 592 1671" rowspan="3">週次 Week</th> <th data-bbox="592 1323 815 1671" rowspan="3">授課內容 Contents of the course</th> <th colspan="3" data-bbox="815 1323 1407 1507">授課方式及時數 Teaching methods and hours (請填時數，無則免填) (fill in the number of hours, leave it blank if you don't have anything to include)</th> </tr> <tr> <th data-bbox="815 1507 986 1671" rowspan="2">面授 Face-to-face teaching</th> <th colspan="2" data-bbox="986 1507 1407 1588">遠距教學 Distance learning</th> </tr> <tr> <th data-bbox="986 1588 1208 1671">非同步 Asynchronous</th> <th data-bbox="1208 1588 1407 1671">同步 Synchronous</th> </tr> </thead> <tbody> <tr> <td data-bbox="483 1671 592 1756">1</td> <td data-bbox="592 1671 815 1756">課程介紹與課程內容說明</td> <td data-bbox="815 1671 986 1756"></td> <td data-bbox="986 1671 1208 1756"></td> <td data-bbox="1208 1671 1407 1756">3</td> </tr> <tr> <td data-bbox="483 1756 592 1856">2</td> <td data-bbox="592 1756 815 1856">Biomedical Design 總論</td> <td data-bbox="815 1756 986 1856"></td> <td data-bbox="986 1756 1208 1856"></td> <td data-bbox="1208 1756 1407 1856">3</td> </tr> <tr> <td data-bbox="483 1856 592 1984">3</td> <td data-bbox="592 1856 815 1984">需求評估與分析 / TEAM WORK</td> <td data-bbox="815 1856 986 1984"></td> <td data-bbox="986 1856 1208 1984"></td> <td data-bbox="1208 1856 1407 1984">3</td> </tr> <tr> <td data-bbox="483 1984 592 2103">4</td> <td data-bbox="592 1984 815 2103">評估智慧健康照護相關議題 / TEAM</td> <td data-bbox="815 1984 986 2103"></td> <td data-bbox="986 1984 1208 2103"></td> <td data-bbox="1208 1984 1407 2103">3</td> </tr> </tbody> </table>	週次 Week	授課內容 Contents of the course	授課方式及時數 Teaching methods and hours (請填時數，無則免填) (fill in the number of hours, leave it blank if you don't have anything to include)			面授 Face-to-face teaching	遠距教學 Distance learning		非同步 Asynchronous	同步 Synchronous	1	課程介紹與課程內容說明			3	2	Biomedical Design 總論			3	3	需求評估與分析 / TEAM WORK			3	4	評估智慧健康照護相關議題 / TEAM			3
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			WORK			
		5	台灣智慧照護 的現況應用與 可行性			3
		6	TEAM WORK (小組 活動可彈性調 整時間)			3
		7	第五屆台北國 際照顧博覽會 (彈性安排參 訪時間) 9/12- 14	3		
		8	AI 人工智慧			3
		9	期中口頭報告			3
		10	腦力激盪產生 構想 & 構想 的篩選 / TEAM WORK			3
		11	智慧財產權 & 專利基本 概念/ TEAM WORK			3
		12	TEAM WORK (小組 活動可彈性調 整時間)			3
		13	醫材法規基本 概念			3
		14	商業模型與募 資方式			3
		15	TEAM WORK for Final Presentation			3
		16	期末發表會			3
4.	教學方式 Teaching methods	(有包含者請打，可複選) (Check a box if applicable; select one or more answer choices) <input type="checkbox"/> (1) 提供線上課程主要及補充教材 Main and supplementary teaching materials are provided for online courses <input type="checkbox"/> (2) 有線上教師或線上助教 Online teachers or teaching assistants are available. <input type="checkbox"/> (3) 提供線上非同步教學，次數：_____次，總時數：_____小				

		<p>時</p> <p>Online asynchronous teaching sessions are provided: ____ time(s), with a total of ____ hours</p> <p>■ (4)提供面授教學，次數：__1__次，總時數：__3__小時</p> <p>Face-to-face teaching is provided: ____ time(s), with a total of ____ hours</p> <p>■ (5)提供線上同步教學，次數：__15__次，總時數：__45__小時</p> <p>Online synchronous teaching sessions are provided: ____ time(s), with a total of ____ hours</p> <p><input type="checkbox"/> (6) 其它：（請說明） Other options (Details here):</p>
5.	教科書及參考書資料 Textbooks and reference materials	<p>1. 教科書 Textbooks : Biodesign: the process of Innovating medical technologies</p> <p>2. 講義 Handouts :</p> <p>3. 參考資料 Reference materials:</p> <p>4. 相關網站 Related websites : http://biodesign.stanford.edu/bdn/resources/video.jsp</p>
6.	於 E3 系統所提供的學習活動 Learning activities offered by the E3 system	<p>請勾選以下會使用之 E3 功能 Please check the E3 features that you will use</p> <p>■ 最新消息發佈、瀏覽 Releasing and browsing the latest news</p> <p>■ 教材內容設計、觀看、下載 Designing, viewing or downloading the contents of teaching materials</p> <p>■ 成績系統管理及查詢 Managing and inquiring the system that keeps track of student grades</p> <p><input type="checkbox"/> 進行線上測驗、發佈 Conducting or releasing an online test</p> <p>■ 學習資訊 Gaining access to learning information</p> <p><input type="checkbox"/> 互動式學習設計(聊天室或討論區) Designing interactive learning (through a chat room or discussion forum)</p> <p><input type="checkbox"/> 各種教學活動之功能呈現 Presenting the benefits of all teaching activities</p> <p><input type="checkbox"/> 其他相關功能（請說明） Other features (Details here)</p>
7.	師生互動討論方式 How teacher-student discussion is conducted	<p>■ 線上討論 Online discussion :</p> <p><input type="checkbox"/> 面談 Face-to-face discussion :</p> <p><input type="checkbox"/> 其他 Others :</p>
8.	作業繳交方式 How assignments are submitted	<p>(有包含者請打，可複選) (Check a box if applicable; select one or more answer choices)</p> <p><input type="checkbox"/> (1)提供線上說明作業內容 Offering online instructions on how assignments should be done</p> <p><input type="checkbox"/> (2)線上即時作業填答 Allowing students to complete online assignments in real time</p> <p>■ (3)作業檔案上傳及下載 Allowing students to upload and download assignments</p> <p><input type="checkbox"/> (4)線上測驗 Providing online tests</p> <p><input type="checkbox"/> (5)成績查詢 Allowing grade inquiry</p> <p><input type="checkbox"/> (6)其他做法（請說明） Others (Details here) :</p>
9.	成績評量方式 How performance is evaluated	<p>1. Attendance/Participation 20%</p> <p>2. Midterm presentation 20%</p> <p>3. Final presentation 20%</p>

		4. Final Paper/Project 20% 5. Team Evaluations 10% 6. Teacher Evaluations 10%
10.	上課注意事項 Other classroom rules	Team work: 1. 學生分組方式:需跨域背景組成, 以 4-5 位學生為主。(視修課人數情況分組) 2. Team tutors:以兩位授課老師跨域搭檔(護理+生醫工程), 學生須提前與 tutors 預約時間討論, tutors 角色是提供諮詢&輔導。 3. 上課期間有提供 Team work 討論時間, 如課程主題兩小時+小組討論一小時。
<p>請注意：教師授課使用之教材，不得非法重製，並應遵守著作財產權之相關規定，如有涉及犯罪或侵權行為應負相關法律責任。建議老師參考主管機關之教師授課著作權錦囊(連結經濟部智慧財產局) https://topic.tipo.gov.tw/copyright-tw/cp-415-855924-5dd9b-301.html</p> <p>Notice: Teaching materials should never be reproduced illegally and should meet the requirements for copyright protection. Copyright infringers will be held accountable legally. Teachers are advised to read Tips on Copyright for Teachers (Here is a link to the website of the Intellectual Property Office, MOEA) https://topic.tipo.gov.tw/copyright-tw/cp-415-855924-5dd9b-301.html</p>		

申請教師簽章： 
Signature of applicant: _____

開課單位主管簽章： 
Signature of head of course provider: _____

