國立陽明交通大學遠距教學課程一教學計畫大綱
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：_____112__學年度 第____2__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)

  一、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

  二、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	歐盟數位轉型法律
2	課程英文名稱 Course name in English	EU Digital Transformation Laws
3	永久課號 Permanent Course ID	LWLW30299
4	當期課號 Course Number	557920
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.	■非同步遠距課程 Asynchronous distance course ■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： _____ □國內主播 Course offered and broadcast by NYCU □境外專班 Overseas Master Degree Program offered by NYCU □雙聯學制 Dual Degree Program □其他 Others
6	授課教師姓名及職稱 Name and position of the teacher	(1) 姓名 Name：陳錡雄、Daria Bulgakova (2) 職稱 Position： 教授、兼任教師
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： 科技法律研究所 輔開系所 Department(s) offering assistance:
8	課程學制 Course structure	□學士班 Bachelor's Degree Program □碩士班 Master's Degree Program ■碩士在職專班 In-service Master's Program □博士班 PhD Program □學位學程（□四年制 □碩士班 □博士班） Degree program (□ 4-year program □ Master's program□ PhD Program) □學分學程 Credit program

9	科目類別 Subject Type	□共同科目 Common Subject □通識科目 General Education Subject □校定科目 NYCU-determined Subject ■專業科目 Professional Subject □教育科目 Educational Subject □其他 Others
10	選課別 Course Type	□必修 Required ■選修 Elective □其他 Others
11	學分數 No. of Credits	2
12	每週上課時數 No. of teaching hours per week	2 *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	1
14	預計總修課人數 Expected No. of students taking the course	20
15	全英語教學 Course taught in English only	■ 是 Yes □ 否 No
16	課程平臺網址（非同步教學必填） Course platform website (required for asynchronous teaching)	■ E3非同步遠距教學 E3 Asynchronous distance learning course □ E3同步遠距教學 E3 Synchronous distance learning course □ E3&CS100教室(同步) E3 & CS100 classroom (synchronous) ■ 其他 Others：__Webex_____

貳、課程教學計畫
2. The Teaching Plan

1.	教學目標 Teaching objectives	Course Goals This course aims to enhance the students' understanding of regulatory and policy aspects of global challenges of how law can be a powerful tool for addressing complexity of smart tech overlap and reduce the risks of technology manipulation. The course also raises important ethical questions about the future regulation of body, psyche, mind, and planet health (green deal) welfare,

		addressing the regulatory matters related to the prohibition of technology that violates fundamental rights. Drawing on vulnerability theory, the course takes a transdisciplinary approach, examining legal, technological, and cognitive aspects to conclude generation of dichotomy. Furthermore, the subject of the course addresses the challenge of data from numerous services and personal devices to create innovative Internet of Bodies solutions. A course presents the Human Data Model, a programming framework that combines information from multiple sources, performs computations, and provides high-level abstractions for computer-human interactions. The course also explores the concept of "The Internet of Bodies," examining how our physical and virtual worlds blend and affect our identities, collaborative experiences, and innovations. The goal is to provide insights into the profound implications of this trend and its potential impact on our lives. While some sectoral regulatory efforts have been made to address these concerns, there has been no regulatory framework for AI until recently. For instance, the European Commission published a draft Act on Artificial Intelligence in 2021, followed by UNESCO's Recommendation on the Ethics of Artificial Intelligence. Finally, the course aims to build knowledge about smart supply chains using the IoT and blockchain supporting product geo-localization. By identifying the causal relationships between those components, lecturers provide a valuable framework for students, lawmakers, lawyers, experts, professionals seeking to implement an intelligent supply chain using IoT tools in a blockchain platform and be compliant. The student 1) Understands the diversity of EU law concerning data, technology, ethics and climate change with the attention to the challenges of the case law paradigm specifically concerning AI Act, GDPR, Data Act, Data Governance Act, Deforestation-free Regulation 2) Is able to expose, minimize and eliminate the lack of transdisciplinary and transnational knowledge in the law and disciplines, including computer science, neuroscience, sociology, political science, marketing, and psychology. Thus, student will solve essential questions for the future of society, as cognitive, technological, and legal questions are intrinsically interwoven. 3) Can increase certainty involved in privacy & data protection through the corelation with the a) Diversification of our identities as they become hyper-enhanced and multi-sensor; b) The co-creation of collaborative experiences that are immersive and interconnected; c) Our bodies drive diverse and inclusive innovations as the interface. 4) Is able to addresses an internet infrastructure for the Internet access for how end users directly access the internet with attention paid to a new legal and policy inquiry area called doxing, biometric psychography, and metaverse' and concepts essential to understanding its risks.
2.	適合修習對象 Target students	Language: The language of instruction is Bilingual; English (main) and Chinese and the reading materials are in English. Students are expected to attend lectures and participate on highlighted discussions, completes and present group and individual work with seminars, reads academic literature and primary legal sources, analyzes relevant cases. The examination will be in Bilingual. Students must have good English-language ability in reading, hearing, speaking, and writing. •Student Background: Student with a diversity of background and training are

welcomed.

•Preliminary knowledge (Prerequisites and co-requisites)• It will be advantageous to have some prior familiarity with the Theories of Law, Cryptographic technologies, Computer Science, Sociology Philosophy, Logic.

•Social Background; The course displays the diversity of EU regulation as well as it analyses the gaps in EU law and sources case studies to gain a lesson not only from the EU but also from the US and Asia to highlight the user experience risks posed by immersive technology.. It brings attention to the challenges of the ensuring data security, preserving privacy rights, and promoting responsible AI development and deployment. The course aims to enhance students' systematic understanding of regulatory and policy aspects of the current state of a balance between encouraging invention in both fields while mitigating risks associated with probable misuse, algorithmic bias, surveillance, and the potential for AI and cryptographic schemes to damage existing legal means and safeguards. The course gives an understanding of a framework that integrates fundamental human rights into the development of future immersive tech applications and applies it to specific scenarios devoted to recommendations demonstrating how it can help navigate old and new challenges especially for manipulating the human mind, which raises serious ethical concerns. Thus, the course offers systematized requirements for network content policy and technology utilization devoting students to responsible use in response relating to the carefulness in using AI systems that deploy subliminal techniques, which pose risks to individual and societal harm.

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)

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	The Synaesthesia under European Union Law *(Theme specific: the governance of law of the future)*		2	2
2	The Synaesthesia under		2	2

				European Union Law *(Theme specific: the governance of law of the future)*				
			3	The Internet of Bodies *(Theme specific: the future of body governance)*		2	2	
			4	The Internet of Bodies *(Theme specific: the future of body governance)*		2	2	
			5	The Internet of Bodies *(Theme specific: the future of body governance)*		2	2	
			6	The AI and Gambling Law *(Theme specific: the governance of psyche)*		2	2	
			7	The AI and Gambling Law *(Theme specific: the governance of psyche)*		2	2	
			8	The AI and Gambling Law *(Theme specific: the governance of psyche)*		2	2	
			9	The Futurology of Subliminal AI Systems *(Theme specific: the governance of mind)*		2	2	
			10	The		2	2	

				Futurology of Subliminal AI Systems *(Theme specific: the governance of mind)*				
			11	The Futurology of Subliminal AI Systems *(Theme specific: the governance of mind)*		2	2	
			12	Lex Cryptographia *(Theme specific: distributed ledger technology & law)*		2	2	
			13	Lex Cryptographia *(Theme specific: distributed ledger technology & law)*		2	2	
			14	The Implementation of Blockchain, Smart Contracts, and IoT for the Supply Chain of Relevant Commodities *(Theme specific: modern regulation of a planet health)*		2	2	
			15	The Implementation of Blockchain, Smart Contracts, and IoT for the		2	2	

		<table><tr><td></td><td>Supply Chain of Relevant Commodities *(Theme specific: modern regulation of a planet health)*</td><td></td><td></td><td></td></tr><tr><td>16</td><td>The Implementation of Blockchain, Smart Contracts, and IoT for the Supply Chain of Relevant Commodities *(Theme specific: the modern regulation of planet health)*</td><td></td><td>2</td><td>2</td></tr></table>
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) ■ (1) 提供線上課程主要及補充教材 Main and supplementary teaching materials are provided for online courses ■ (2) 有線上教師或線上助教 Online teachers or teaching assistants are available. ■(3)提供線上非同步教學，次數：16次，總時數：32小時 Online asynchronous teaching sessions are provided: ____time(s), with a total of ____hours ☐ (4)提供面授教學，次數：____次，總時數：____小時 Face-to-face teaching is provided: ____time(s), with a total of ____hours ■(5)提供線上同步教學，次數：16次，總時數：32小時 Online synchronous teaching sessions are provided: ____time(s), with a total of ____hours ☐ (6) 其它：（請說明）Other options (Details here):
5.	教科書及參考書資料 Textbooks and reference materials	Class Materials Theme 1 Masciandaro, N. (2019). Synaesthesia: The mystical sense of law. In *Routledge Handbook of Law and Theory* (1st ed., pp. 179–201). Routledge. https://doi.org/10.4324/9781315665733-9 Bernini, M. (2021). *Beckett and the cognitive method: mind, models, and exploratory narratives*. Oxford University Press. Theme 2

		Gutwirth, S., Hert, P. de, Leenes, R., & van Brakel, R. (2019). *Data protection and privacy: the internet of bodies* (S. Gutwirth, P. de Hert, R. Leenes, & R. van Brakel, Eds.). Bloomsbury Publishing. https://doi.org/10.5040/9781509926237 Mosco, V. (2017). *Becoming digital : toward a post-Internet society* (V. Mosco, Ed.). Emerald Publishing. Theme 3 Smith, C. M., Monkcom, S. P., & Bamford, C. (2017). *Smith & Monkcom, the law of gambling* (C. M. Smith, S. P. Monkcom, & C. Bamford, Eds.; Fourth edition.). Bloomsbury Professional. https://doi.org/10.5040/9781784512125 Parke, J., Williams, R. J., & Wood, R. T. (2012). *Routledge international handbook of Internet gambling* (First edition.). Routledge. https://doi.org/10.4324/9780203814574 Theme 4 Neuwirth, R. J. (2023). *The EU Artificial Intelligence Act: regulating subliminal AI systems*. Routledge. White, M. (2006). *The body and the screen theories of Internet spectatorship*. MIT Press. Theme 5 Becker, K. (2022). Blockchain Matters—Lex Cryptographia and the Displacement of Legal Symbolics and Imaginaries. *Law and Critique*, *33*(2), 113–130. https://doi.org/10.1007/s10978-021-09317-8) Schillig, M. A. (2023). "Lex Cryptographia," "Cloud Crypto Land" or What? Blockchain Technology on the Legal Hype Cycle. *Modern Law Review*, *86*(1), 31–. https://doi.org/10.1111/1468-2230.12748) Chevalier, M. (2021). From Smart Contract Litigation to Blockchain Arbitration, a New Decentralized Approach Leading Towards the Blockchain Arbitral Order. *Journal of International Dispute Settlement*, *12*(4), 558–584. https://doi.org/10.1093/jnlids/idab025 Theme 6) De Filippi, P., & Wright, A. (2018). *Blockchain and the law: the rule of code*. Harvard University Press. https://doi.org/10.4159/9780674985933 Laird, S. A., McLain, R. J., Wynberg, R., & McLain, R. J. (Rebecca J. (2010). *Wild product governance finding policies that work for non-timber forest products*. Earthscan.
6.	於E3系統所提供的學習活動 Learning activities offered by the E3 system	請勾選以下會使用之E3功能 Please check the E3 features that you will use ■最新消息發佈、瀏覽 Releasing and browsing the latest news ■教材內容設計、觀看、下載 Designing, viewing or downloading the contents of teaching materials ■成績系統管理及查詢 Managing and inquiring the system that keeps track of student grades ☐ 進行線上測驗、發佈 Conducting or releasing an online test ■學習資訊 Gaining access to learning information ☐ 互動式學習設計(聊天室或討論區)Designing interactive learning (through a chat room or discussion forum) ☐ 各種教學活動之功能呈現 Presenting the benefits of all teaching activities ☐ 其他相關功能（請說明） Other features (Details here)
7.	師生互動討論方式 How teacher–	■線上討論 Online discussion： ☐ 面談 Face-to-face discussion：

	student discussion is conducted	☐ 其他 Others：
8.	作業繳交方式 How assignments are submitted	（有包含者請打，可複選） (Check a box if applicable; select one or more answer choices) ■ (1)提供線上說明作業內容 Offering online instructions on how assignments should be done ☐ (2)線上即時作業填答 Allowing students to complete online assignments in real time ■(3)作業檔案上傳及下載 Allowing students to upload and download assignments ☐ (4)線上測驗 Providing online tests ■(5)成績查詢 Allowing grade inquiry ☐ (6)其他做法（請說明） Others (Details here)：
9.	成績評量方式 How performance is evaluated	(1) 考試方式 How tests are conducted： (2) 考評項目其所佔總分比率 Evaluation items, with their percentage of the total score：1.學期作業、考試、評量 The total evaluation of the course is 100%. The assessment of professional skills consists of *group work in classroom seminars: 30% (a spoken)* Students will be divided into groups for an experimental scenario of a problem. Each group has to defend the interests of the parties' involved and present arguments. By doing group activity, students will develop team working skills and learn how to find a solution in a simulative way *individual work in practical sessions: 20% (in written)* Students will be provided a draft of legal documents and required to complete it. Students will work with a particular regulation and have to complete legal documents based on the corresponding articles of that regulation. In that way, students will develop an independent way of thinking and learn to work with contracts, agreements and compliance policies. *final work – research paper and ppt presentation: 50% (spoken & written)* A student is motived to choose theme for the research paper and to prepare PPT on one of the chosen topics from the six outlined in the course. 2.教學方法及教學相關配合事項（如助教、網站或圖書及資料庫等） •Student Requirements 1. The student attends lectures, completes practical work and present group and individual work. 2. The course used mixed methodology based on the Delphi and Dematel methods. Applying these methods, students will develop a model for regulatory smart supply chain procedure, such as optimal decision-making, automation, integration, innovation, and learning. This will help in practice to verify claims made about the origin of technology and provide greater transparency.
10.	上課注意事項 Other classroom rules	

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

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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

申請教師簽章：科技法律學院 院長 陳銘雄(甲)
Signature of applicant:

開課單位主管簽章：科技法律研究所 所長 陳世方
Signature of head of course provider: