國立臺灣師範大學課程綱要【格式】

一、課程基本資料（任課教師不可異動部分，同一課程名稱此部分應相同）

課程代碼	ISC0412	**課程名稱**	**人資互動研究**	
英文名稱	Studies in Human Information Interaction			
全/半年	半年		**必/選修**	選修
學分數	3		**每週授課時數**	3 小時
開課系級	圖資碩博			
先修課程	無			
課程簡介	This course is designed to survey and explore the human information interaction (HII) as a process, within which information needs, information seeking behavior, and information use by people in various roles, situations, environments, and contexts that go beyond traditional information services places like libraries. More specifically, this course not only examines the information behavior as a whole, but also covers the breakdown of the process, including information needs assessment, information seeking, and information use. The learning objectives in this course are including: A. To understand the key concepts of Information retrieval and human information interaction. B. To learn the theories and methodologies of HII deeper and border. C. To know how to apply the theories and methodologies of HII in the real context. D. To develop expertise and first-hand experience in a particular specialized topic of HII.			

課程目標		**對應系所核心能力**
1	Explore the philosophical, theoretical, and methodological ground of Human Information Interaction research and practices	碩士: 1-3 探究資訊使用者及資訊使用之理論與方法 博士: 1-3 探究資訊使用者及資訊使用之理論與方法
2	Design and develop information services based on user study analysis and information design principles	碩士: 4-1 以人為本，尊重知識，整合運用資訊科技與創新服務，促進知識之自由與有效使用。 博士: 4-1 以人為本，尊重知識，整合運用資訊科技與創新服務，促進知識之自由與有效使用。

***課綱將於學期中依照學生學習狀況、背景與疫情狀況進行授課內容與方式調整**

二、教學大綱（任課教師可異動部分）

授課教師	吳怡瑾

教學進度與主題（可說明每週進度）

週次	授課內容	授課方式(請 V 選)				
		實體	電	腦 網	路	備註
		面授(教室上課)	同步視訊授課	非同步網路授課	同步網路會談	
1 (9/22)	**Course Overview & Introduction to HII** -- **課程影片與閱讀資料**	V		V		面授 1.5hr+非同步 1.5hr (學校規定線上，改為 同步視訊 1.5 +非同步 1.5)
2 (9/29)	**Introduction to Information Retrieval, beyond Cranfield paradigm** -- **課程影片與閱讀資料** -- Paper：M.F. Porter, 1980, An algorithm for suffix stripping, Program,14(3) pp 130−137. Others: Porter stemming algorithm			V		非同步 3hr
3 (10/6)	**The Classical IR Model: Scoring, Term Weighting, and the Vector Model** -- **Paper :** Salton, G. and Buckley, C. Term-weighting approaches in automatic text retrieval. *Information Processing & Management*, 1988.	V		V		面授 2 hr+非同步 1 hr (學校規定線上，改為 同步視訊 2 +非同步 1)
4 (10/13)	**IR & HII Evaluation -I (TREC, NTCIR, CLEF)** -- **Paper:** O. Togia, A., and Malliari, A. (2017). Research methods in Library and Information Science. In: S. Oflazoglu (ed.) Qualitative versus Quantitative Research, pp. 43-64. -- **Paper:** Järvelin, K. and Kekäläinen, J. (2002), “Cumulated gain-based evaluation of IR techniques”, ACM Transactions on Information Systems (TOIS), Vol. 20 No. 4, pp. 422-446.		V	V		非同步 3 hr (視學校規定調整)
5 (10/20)	**The Research Trend of Human Information Interaction in Library & Information Science and the Models** -- **Video (A Talk):** NTCIR Evaluation of Question Answering and Conversation Technologies		V	V		非同步 1 hr+同步視訊 2hr (若可面授，本週同步視訊將

	-- **Paper 2& Video::** Tuomaala,K. Järvelin, P. Vakkari (2014), Evolution of library and information science, 1965–2005: Content analysis of journal articles, *JASIST*, 65(7),1446-1462					改為面授，確定方式課程會討論與公告)
6 (10/27)	**HII Tools (I): Terrier IR System and the Project （實機演練）** Introduction to Terrier IR systems Terrier IR systems Project Demo Introduction to CKIP, Stanford Natural Processing Tools	V				面授 3hr
7 (11/03)	**HII Models and Research Issues (I)** -- **Paper presentation 1:** Gary Marchionini (2008), Human–information interaction research and development, Library & Information Science Research, 30, pp. 165-174.		V	V		非同步 1 hr+ 同步視訊 2 hr
8 (11/10)	**HII Models and Research Issues (II)** -- **課程影片與閱讀資料** - - **Paper 1 & Video:** I.-C. Wu, D.-R. L iu, & P. C. Chang, (Sep., 2008), "Toward Incorporating a Task-stage Identification Technique into the Long-term Document Support Process," *Information Processing & Management*, Vol. 44, No. 5, pp.1649-1672 -- **Paper & Video:** P. Vakkari , M. Pennanen, & S. Serola, (2003). "Changes of search terms and tactics while writing a research proposal: A longitudinal case study," *Information Processing and Management*, 39, pp.445-463			V		非同步 3 hr
9 (11/17)	Special Topic in HCII -- Virtual online talk: Pavvo Arvola-What does University Level LIS Education Stand for? European and Finnish			V		非同步 3 hr
10 (11/24)	**HII Research Topic: Task and Domain Knowledge Effects** -- **Paper Presentation 2:** Belkin, N.J. (2015). People, Interacting with Information. ACM SIGIR Forum, 49(2), 13-27 -- **Paper:** Järvelin, K. (2019) Salton Award Keynote: Information Interaction in Context. ACM SIGIR Forum, 52(2), 52-63 -- **Paper:** I.-C. Wu*& C.-Y. Wu, (April, 2011), "Using Internal Link and Social Network Analysis to Support Searches in Wikipedia: A Model and Its Evaluation," *Journal of Information Science,*Vol. 37, No. 2 pp.189-207	V				非同步 1 hr+ 同步視訊 2 hr

11 (12/1)	**HII Research Topic :Task Design & Interface Effects** -- **課程影片與參考資料** -- **Paper Presentation 3:** Wildemuth, B.-M. (2004). The effects of domain knowledge on search tactic formulation. *Journal of the American Society for Information Science and Technology*, 55(3), 246-258 -- **Paper Presentation 4:** Kelly, D., Arguello, J., Edwards, A., & Wu, W. C. (2015). Development and evaluation of search tasks for IIR experiments using a cognitive complexity framework. In J. Allan, B. Croft, (chair), *ICTIR '15: Proceedings of the 2015 International Conference on The Theory of Information Retrieval* (pp.101-110). New York, USA: Association for Computing Machinery. **Paper:** I-C. Wu, & P. Vakkari, (2018) "Effects of Subject-oriented Visualization Tools on Search by Novices and Intermediates," *Journal of the Association for Information Science and Technology,* Vol. 69, No. 12, pp.1428-1445.	V		V		面授 2hr+非同步 1 hr
12 (12/9)	**HII Practice (III)—Evaluation Tool 操作（實機演練）** -- Introduction to Morae-usability testing tool	V		V		面授 2hr+非同步 1 hr
13 (12/16)	**HII Research Topic :Visualization I** -- **Project Proposal Discussion** -- - **課程影片與參考資料** **-Paper:** Heo, M., Hirtle, S.C. (2001). An empirical comparison of visualization tools to assist information retrieval on the web. *Journal of the Association for Information Science and Technology*, 52(8), 666-675 **Paper & Video:** Parsons, P. & Sedig, K. (2014). Adjustable properties of visual representations: Improving the quality of human-information interaction, *JASIST*, 65(3), 455-482			V		非同步 3 hr
14 (12/23)	**HII Tools (III)—CKIP & Web Search or Visualization tool （實機演練）** -- **Paper 1:** Mikolov, T. et al. (2013), Efficient Estimation of Word Representations in Vector Space -- **Paper 2 :** Pront, J.M. and Croft, W. B. A Language Modeling Approach to Information Retrieval, SIGIR 1998			V		同步視訊 2 hr+非同步 1 hr
15 (12/30)	**HII Research Topic :Visualization II** -- **課程影片與參考資料**	V		V		面授 2.5hr+非同

	-- Project Discussion					步 0.5 hr
16 (1/6)	**HII Research Topic Search & Learning** -- **Paper presentation 5:** Vakkari, P. (2016). Searching as learning: A systematization based on literature. Journal of Information Science, 42(1), 7-18 -- **Paper Presentation 6:** Y.M., Hwang & K.C., Lee (2018). Using an -- Eye-Tracking Approach to Explore Gender Differences in Visual Attention and Shopping Attitudes in an Online Shopping Environment, International *Journal of Human–Computer Interaction*, 34(1)		V	V		非同步 1 hr+同步視訊 2 hr
17 (1/13)	**HII Final Project Presentation** -- Simulated IR Search Project Demo **(彈性授課週 1: 開學討論時間)**			V		面授 3hr
18 (1/20)	**Special Topic in HCII Discussions** -- **Paper& Video :** Borner, K. & Maltese, A. (2015). Investigating aspects of data visualization literacy using 20 information visualizations and 273 science museum visitors. *Information Visualization,* 15(3), 1-16 -- **Paper:** Wu, I-C., & Vakkari, P. (2018). Effects of subject-oriented visualization tools on search by novices and intermediates. Journal of the Association for Information Science and Technology, 69 (12), 1428-1445. **彈性授課週 2**	V				非同步 3hr

教學方法

方式	說明
■ 講述法	投影片，影片與課程教材
■ 討論法	課程相關議題討論
□ 問題解決教學	
■ 合作學習	專題與實作合作
■ 實驗/實作	二到三次實作演練(HII Tools)
□ 實地考察、參訪	
□ 媒體融入教學	
■ 專題研究	期中企劃案與期末專題報告
□ 其他：	

評量方法

方式	百分比	說明
■ 作業	40%	二到三次實作演練(HII Tools)成績

		平台作業 每週平台測驗與評量
☐ 期中考		
☐ 期末考		
☐ 課堂討論參與		
■ 出席	20-25 %	線上討論區參與、上課出席與討論
■ 報告	20%	論文報告
☐ 成果展覽		
■ 專題	20-25 %	期中企劃案與期末專題報告(根據疫情彈性調整)
☐ 其他：		
參考書目	[1] Ingwersen, P. and Järvelin, K. (2005). *The Turn: Integration of Information Seeking and Retrieval Context*, Springer, Dordrecht, the Netherlands. [2] Manning, C.D., Raghavan, P., & Schütze, H. (2008). Introduction to Information Retrieval. Cambridge University Press. (http://nlp.stanford.edu/IR-book/) [3] Case, D. O. & Given, L.M. (2016). Looking for Information: A Survey of Research on Information Seeking, Needs, and Behavior. Bingley, UK : Emerald Group Pub. [4] Ruthven, I. & Kelly, D. (2011). *Interactive Information Seeking Behaviour and Retrieval*. Facet Press. [5] Kelly, D. (2009). Methods for evaluating interactive information retrieval systems with users. Foundations and Trends in Information Retrieval, 3(1-2), 1-224. DOI: 10.1561/1500000012. http://ils.unc.edu/~dianek/FnTIR-Press-Kelly.pdf [6] Fidel, R.(2012), Human Information Interaction: An Ecological Approach to Information Behavior, The MIT Press [7] Marti Hearst: Search User Interfaces. Cambridge University Press 2009	