



教學計劃表 Syllabus

課程名稱(中文) Course Name in Chinese	科學寫作		學年/學期 Academic Year/Semester	112/1
課程名稱(英文) Course Name in English	Scientific Writing			
科目代碼 Course Code	NRES54160	系級 Department & Year	碩士	開課單位 Course-Offering Department
自然資源與環境學系				
修別 Type	選修 Elective	學分數/時間 Credit(s)/Hour(s)	3.0/3.0	
授課教師 Instructor	/蔡金河			
先修課程 Prerequisite				
課程描述 Course Description				
This course is designed as a research and professional development course for ESL graduate students in science majors. Students will practice writing/preparing academic CVs, research proposals, conference abstracts or posters, seminar talks, and journal articles.				
課程目標 Course Objectives				
本課程目標在訓練同學基本的地質科學英文閱讀與寫作能力，以期能為未來參與國際學術會議發表或國際期刊投稿做準備				
系專業能力 Basic Learning Outcomes				課程目標與系專業能力相關性 Correlation between Course Objectives and Dept.'s Education Objectives
A	能覺知多元的自然科學與社會科學理論並具備研究能力 To have knowledge of natural and social science theories			○
B	具備自然資源與人類社會議題之調查分析、規劃與經營之能力 To be able to investigate, analyze, plan, and manage both natural resource and human social issues			○
C	具備將環境倫理與生態思想落實於永續性生活型態的能力 To implement sustainable lifestyles based on environmental ethics and ecological principles			○
D	能以整全式的觀點來解析環境問題，並具備發展系統性解決方案的能力 To resolve environmental issues and develop systematic solutions with a global perspective			○
E	具備系統分析、未來思考、溝通協調與團隊合作的能力 The ability to analyze, plan, communicate, and coordinate with others (teamwork)			●
F	具備終身學習、國際視野與外語溝通的能力 To instill the values of lifelong learning, an international perspective, and the ability to communicate in a foreign language			●
圖示說明 Illustration : ● 高度相關 Highly correlated ○ 中度相關 Moderately correlated				
授課進度表 Teaching Schedule & Content				
週次 Week	內容 Subject/Topics			備註 Remarks
1	Introduction			
2	Academic CV			
3	Before You Write			
4	Searching and Reviewing Scientific Literature			

5	Proposals	
6	Theses	
7	Publishing in Scientific Journals	
8	How to Write a Good Introduction	
9	Discussion; First Assignment Due	mid-term week
10	Abstract and Conclusion	
11	Reviewing and Revising	
12	Professionalism, Ethics, and Legal Issues	
13	Peer Review	
14	How to Do a Good Oral Presentation	
15	How to Do a Good Poster Presentation	
16	Student Presentations (I)	
17	Student Presentations (II)	
18	Second Assignment Due; Final Discussion	Final week

教學策略 Teaching Strategies

- 課堂講授 Lecture
 分組討論 Group Discussion
 參觀實習 Field Trip
 其他 Miscellaneous:

教學創新自評 Teaching Self-Evaluation

創新教學 (Innovative Teaching)

- 問題導向學習 (PBL)
 團體合作學習 (TBL)
 解決導向學習 (SBL)
 翻轉教室 Flipped Classroom
 磨課師 Moocs

社會責任 (Social Responsibility)

- 在地實踐 Community Practice
 產學合作 Industry-Academia Cooperation

跨域合作 (Transdisciplinary Projects)

- 跨界教學 Transdisciplinary Teaching
 跨院系教學 Inter-collegiate Teaching

- 業師合授 Courses Co-taught with Industry Practitioners

其它 other:

學期成績計算及多元評量方式 Grading & Assessments									
配分項目 Items	配分比例 Percentage	多元評量方式 Assessments							
		測驗 會考	實作 觀察	口頭 發表	專題 研究	創作 展演	卷宗 評量	證照 檢定	其他
平時成績 General Performance	20%			✓			✓		
期中考成績 Midterm Exam									
期末考成績 Final Exam	40%			✓			✓		
作業成績 Homework and/or Assignments	40%			✓			✓		
其他 Miscellaneous (_____)									
評量方式補充說明 Grading & Assessments Supplemental instructions									
教科書與參考書目 (書名、作者、書局、代理商、說明) Textbook & Other References (Title, Author, Publisher, Agents, Remarks, etc.)									
<p>Alley, M. (2018) The Craft of Scientific Writing, Springer.</p> <p>Bates, R.L., Adkins-Heljeson, M.D., and Buchanan, R.C. (1995) Geowriting (5th Ed.), American Geological Institute.</p> <p>Carter, M. (2020) Designing Science Presentations, Elsevier.</p> <p>Copeland, P. (2011) Communicating Rocks, Pearson.</p> <p>Davis, M. Davis, K.J., and Dunagan, M.M. (2012) Scientific Papers and Presentations (5th Ed.), Elsevier.</p> <p>Donovan, S.K. (2017) Writing for Earth Scientists, Wiley-Blackwell.</p> <p>Hofmann, A.H. (2020) Scientific Writing and Communication (4th Ed.), Oxford University Press.</p> <p>Katz, M.J. (2009) From Research to Manuscript, Springer.</p> <p>Shoja, M. et al. (2019) A Guide to the Scientific Career: Virtues, Communication, Research and Academic Writing, Wiley.</p> <p>Oruc, A.Y. (2011) Handbook of Scientific Proposal Writing, CRC Press.</p> <p>Ross, C and Ross, G. (2019) Real Science in Clear English: A Guide to Scientific Writing for the Global Market, Springer.</p> <p>Stüwe, K. and Drescher, A. (2012) How to Write a Manuscript for a Journal, Mitteilungen des naturwissenschaftlichen Vereines für Steiermark.</p>									
課程教材網址(含線上教學資訊, 教師個人網址請列位於本校內之網址) Teaching Aids & Teacher's Website(Including online teaching information. Personal website can be listed here.)									
其他補充說明 (Supplemental instructions)									