國立屏東大學 110學年度第2學期 教學課程綱要

※為保護智慧財產權，請勿非法影印教科書。

課程學分數：1.00(2.00小時)

授課老師：蕭文峰(219006)   必選修：必

開課序號	0339
科目名稱	資訊管理專題研討(二)(AWBZ007)
科目英文名稱	Special Topics in MIS Ⅱ
授課語言	英語/全外語授課
主要教學型態	課堂教學
教學目標	This course reviews some of the basic Data Mining and Big Data Analytics techniques by using Data Mining tools Orange and Weka, and by using programming language python. Topics include but not limited to visualization, classification/clustering, evaluations/interpretations, web crawling, and sentiment analysis.
每週課程內容及教學方法	Week Course Content Week 1 Course Logistics and Classroom English I Week 2 Classroom English II Week 3 Hierarchical Clustering Week 4 Partitional Clustering Week 5 Clustering Explained and Silhouette Week 6 Classification: Logistic Regression, RandomForrest, XGBoost Week 7 Making Predictions: Model Evaluation and Scoring Week 8 Principal Component Analysis Week 9 Mid-term: project proposal presentations and discussion Week 10 Big Data Analytics: Web Crawling and Text Preprocessing Week 11 Big Data Analytics: Document Embeddings Week 12 Big Data Analytics: Text Clustering Week 13 Big Data Analytics: Text Classification Week 14 Big Data Analytics: Text Documents Importation Week 15 Big Data Analytics: Multivariate Projection - Freeviz Week 16 Big Data Analytics: Twitter Data Analysis Week 17 Big Data Analytics: Sentiment Analysis Week 18 Final: term project demonstration and presentations *Note: The teaching method for mid-term and final is "presentation and discussion" for the other weeks, "lecture and discussion".
核心能力	1.進階資訊技術與管理分析能力 20% 2.系統分析、開發與整合能力 20% 3.瞭解國內外資訊產業趨勢能力 20% 4.資管領域專題研究及論文撰寫之能力 0% 5.創新思考及應用資訊技術解決問題之能力 20% 6.優良之溝通與表達能力 10%

	7.優良之協調與團隊合作能力 0% 8.資訊倫理及公民素養之能力 10% 9.國際觀與終身學習能力 0%
預期學習成果	At the end of this course, students should be able to: 1. Use data mining tools (such as Orange/Weka) for data visualization, pattern identification, evaluation, and interpretation. 2. Read, understand, and use python programs for big data analytics. 3. Establish a team spirit of mutual trust and cooperation through term projects. 4. Enhance multicultural thinking and international perspectives through English communication and reading.
與預期學習成果搭配的多元評量	The assessments for the ILOs are listed as follows: ILO 1: Homework (60%), Project report (20%), Oral Presentation (20%) ILO 2: Project's functionalities and quality (80%), Oral presentation (20%) ILO 3: Self and peer assessment of teamwork contribution (100%) ILO 4: Class Participation (60%), Project report (20%), Oral Presentation (20%)
主要讀本	1. course website: http://einstein.npic.edu.tw:9212/sources/seminar/ 2. https://orangedatamining.com/ 3. https://waikato.github.io/weka-wiki/ 4. https://scikit-learn.org/stable/
參考書目	classroom english: https://7esl.com/classroom-english-teachers/
其他事項	