國立東華大學

課　綱　Course Outline
資訊工程學系國際組

中文課程名稱 Course Name in Chinese	大數據分析				
英文課程名稱 Course Name in English	Big Data Analytics				
科目代碼 Course Code	CSIEM0350	班　別 Degree	碩士班 Master's		
修別 Type	選修 Elective	學分數 Credit(s)	3.0	時　數 Hour(s)	3.0
先修課程 Prerequisite					

課程目標
Course Objectives

This course has a goal to provide a firm grounding in laying out a strategy for adopting big data techniques. We provide an overview of what big data is and why it can add value, what types of problems are suited to a big data approach, and how to properly plan to determine the need, align the right people in the organization, and develop a strategic plan for integration.

系教育目標
Dept.'s Education Objectives

1	探究學科知識，善用專業技能 Explore academic knowledge, utilize professional skills.
2	訓練評析思考，創新解決問題 Exercise analytical thinking, enhance creative problem solving skills.
3	學習團隊分工，強化溝通表達 Participate in teamwork, strengthen communication skills.

	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	統合資工知識技術之能力 Ability to integrate knowledge and technologies of computer science and information engineering.	●
B	設計技術理論驗證實驗之能力 Ability to design and conduct science experiments and to validate hypotheses.	●
C	資訊軟硬體設計開發之能力 Ability to design and develop computer software and hardware.	●

D	團隊專案開發之能力 Ability to design and develop team projects.	●
E	批判性思考與創新研發之能力 Ability of analytical thinking, creative research planning, and innovative development.	●

圖示說明Illustration ：● 高度相關 Highly correlated ○中度相關 Moderately correlated

課程大綱
Course Outline

1. Introduction
2. Business Problems and Big Data Analytics
3. Integrating Big Data Analytics
4. Big Data Management
5. Big Data Analytics Tools and Techniques
6. Developing Big Data Applications
7. High Performance for Big Data Analytics
8. Practical Issues in Big Data Analytics
9. Conclusion

資源需求評估（師資專長之聘任、儀器設備的配合···等）
Resources Required (e.g. qualifications and expertise, instrument and equipment, etc.)

視教學狀況，得安排4-8週於電腦教室，進行上機實習。

課程要求和教學方式之建議
Course Requirements and Suggested Teaching Methods

平時測驗、期中考試、實習專題作業、期末考試

其他
Miscellaneous