

 國立東華大學  
教學計劃表 Syllabus

|                                    |                                  |                             |    |                                       |                     |
|------------------------------------|----------------------------------|-----------------------------|----|---------------------------------------|---------------------|
| 課程名稱(中文)<br>Course Name in Chinese | 大數據決策支援系統                        |                             |    | 學年/學期<br>Academic Year/Semester       | 114/1               |
| 課程名稱(英文)<br>Course Name in English | Big Data Decision Support System |                             |    |                                       |                     |
| 科目代碼<br>Course Code                | MSF_10470                        | 系級<br>Department<br>& Year  | 學三 | 開課單位<br>Course-Offering<br>Department | 管理科學與財金國際學士<br>學位學程 |
| 修別<br>Type                         | 學程 Program                       | 學分數/時間<br>Credit(s)/Hour(s) |    | 3.0/3.0                               |                     |
| 授課教師<br>Instructor                 | /邱素文                             |                             |    |                                       |                     |
| 先修課程<br>Prerequisite               |                                  |                             |    |                                       |                     |

課程描述 Course Description

課程目標

AI-based Big Data Decision Support System (AI-BDSS) is an umbrella term that combines current cutting-edge AI-based knowledge in finance architectures, management tools, information databases, financial analytical tools, applications, and methodologies. Its major objective is to enable interactive access to business data, enable manipulation of these data in the field of finance and management science, and to provide business managers and analysts the ability to conduct appropriate analysis.

課程綱要

BDSS have major components: the data warehouse with source data in finance, business analytics including a collection of tools for financial data manipulating, data mining, and analyzing financial data in data warehouse, business performance management for monitoring and analyzing performance, and the user interface design. Data analytics in finance is the process of developing BDSS actionable decisions or recommendations for actions based upon insights generated from historical and business data. The purpose of this course is to let students having financial background understand how to look at all the data in BDSS and investigate what is happening about BDSS with close connection to finance and management science, what will happen, and how to make the right choice of BDSS at the right time.

課程目標 Course Objectives

Big Data Decision Support System (BDDSS) is an umbrella term that combines finance architectures, management tools, information databases, financial analytical tools, applications, and methodologies. Its major objective is to enable interactive access to real time data, enable manipulation of these data in the field of finance and management science, and to provide business managers and analysts the ability to conduct appropriate analysis.

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       | Overview for AI-BDSS and welcome new faces                        |            |
| 2       | chap 1                                                            |            |
| 3       | chap 1 (cont'd) and announcement of term project with oral report |            |
| 4       | National holiday and no class                                     |            |
| 5       | National holiday and no class                                     |            |
| 6       | chap 1 (cont'd)                                                   |            |

|    |                                                                  |          |
|----|------------------------------------------------------------------|----------|
| 7  | chap 9                                                           |          |
| 8  | chap 3                                                           |          |
| 9  | chap 3 (cont'd)                                                  |          |
| 10 | 11/10: Midterm examination: openbook: Chap 1,9                   | REQUIRED |
| 11 | 11/17: oral report and term project-track #1                     | REQUIRED |
| 12 | 11/24: oral report and term project: track #2                    | REQUIRED |
| 13 | 12/01: oral report and term project: track #3                    | REQUIRED |
| 14 | 12/08: oral report and term project: track #4                    | REQUIRED |
| 15 | 12/15: final examination: all chapters + oral reports: open book | REQUIRED |
| 16 | 12/22: oral report and term project: track #5                    | REQUIRED |
| 17 | 12/29: oral report and term project: track #6                    | REQUIRED |
| 18 | Flexible study                                                   |          |

#### 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:

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| 學期成績計算及多元評量方式 Grading & Assessments                                                                                                                                                                                                                                |                    |                    |          |          |          |          |          |          |    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------|----------|----------|----------|----------|----------|----------|----|
| 配分項目<br>Items                                                                                                                                                                                                                                                      | 配分比例<br>Percentage | 多元評量方式 Assessments |          |          |          |          |          |          |    |
|                                                                                                                                                                                                                                                                    |                    | 測驗<br>會考           | 實作<br>觀察 | 口頭<br>發表 | 專題<br>研究 | 創作<br>展演 | 卷宗<br>評量 | 證照<br>檢定 | 其他 |
| 平時成績(含出缺席)<br>General Performance<br>(Attendance Record)                                                                                                                                                                                                           | 10%                |                    | ✓        | ✓        |          |          | ✓        |          |    |
| 期中考成績 Midterm Exam                                                                                                                                                                                                                                                 | 30%                | ✓                  |          |          |          |          | ✓        |          |    |
| 期末考成績 Final Exam                                                                                                                                                                                                                                                   | 30%                | ✓                  |          |          |          |          | ✓        |          |    |
| 作業成績 Homework and/or<br>Assignments                                                                                                                                                                                                                                | 30%                |                    | ✓        | ✓        | ✓        | ✓        | ✓        |          |    |
| 其他 Miscellaneous<br>(_____)                                                                                                                                                                                                                                        |                    |                    |          |          |          |          |          |          |    |
| 評量方式補充說明<br>Grading & Assessments Supplemental instructions<br>11/10, 12/15: midterm & final EXAM; 11/17, 24, 12/1, 8, 22, 29 Term project & oral reports. Please mark ALL dates in advance.                                                                       |                    |                    |          |          |          |          |          |          |    |
| 教科書與參考書目(書名、作者、書局、代理商、說明)<br>Textbook & Other References (Title, Author, Publisher, Agents, Remarks, etc.)<br>Analytics, Data Science, & Artificial Intelligence: Systems for Decision Support (11版) 2020<br>作者: Ramesh Sharda, Dursun Delen, Efraim Turban (華泰文化) |                    |                    |          |          |          |          |          |          |    |
| 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)<br>Teaching Aids & Teacher's Website(Including online teaching information.<br>Personal website can be listed here.)<br><a href="http://elearn4.ndhu.edu.tw/moodle/">http://elearn4.ndhu.edu.tw/moodle/</a>                       |                    |                    |          |          |          |          |          |          |    |
| 其他補充說明 (Supplemental instructions)                                                                                                                                                                                                                                 |                    |                    |          |          |          |          |          |          |    |