



教學計劃表 Syllabus

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| 課程名稱(中文) Course Name in Chinese | 生產計劃與排程 | | 學年/學期 Academic Year/Semester | 112/1 |
| 課程名稱(英文) Course Name in English | Production Planning and Scheduling | | | |
| 科目代碼 Course Code | GSLM51900 | 系級 Department & Year | 碩士 | 開課單位 Course-Offering Department |
| 修別 Type | 選修 Elective | 學分數/時間 Credit(s)/Hour(s) | 3.0/3.0 | |
| 授課教師 Instructor | /陳怡君/馬綱廷 | | | |
| 先修課程 Prerequisite | | | | |
| 課程描述 Course Description | | | | |
| The course introduces to students basic concepts of production planning (i.e., forecasting, aggregate planning, MPS, MRP, capacity planning) and representative topics in scheduling (i.e., single machine scheduling, parallel machine scheduling, job-shop scheduling, flow-shop scheduling, and open-shop scheduling). The course material provides students typical concepts of and tools for planning and scheduling in industrial settings. | | | | |
| 課程目標 Course Objectives | | | | |
| 提供對生產管理深一步研究之課程。 | | | | |
| 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 | 基礎運籌、供應鏈管理知識 Foundations on logistics and supply chain management | | | ● |
| B | 運籌系統管理知識 Knowledge on logistics system management | | | ● |
| C | 運籌工具方法知識 Knowledge on analytical tools and methodologies in logistics | | | ● |
| D | 語文表達能力 Language and communication skills | | | ○ |
| 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 to Production Planning and Scheduling | | | |
| 2 | Forecasting | | | |
| 3 | Forecasting/ Inventory | | | |
| 4 | Inventory/ Capacity Planning | | | |
| 5 | Holiday | | | |
| 6 | Capacity Planning/ Aggregate Planning | | | |

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| 7 | Aggregate Planning | |
| 8 | Aggregate Planning / Midterm Project Proposal Presentation | |
| 9 | 期中考試週 Midterm Exam | |
| 10 | Master Production Scheduling (MPS) | |
| 11 | Master Production Scheduling (MPS)/ Material Requirement Planning (MRP) | |
| 12 | Material Requirement Planning (MRP) | |
| 13 | Scheduling | |
| 14 | Scheduling | |
| 15 | Scheduling | |
| 16 | Final Project Presentation | |
| 17 | 期末考試週 Final Exam | |
| 18 | The 18th week for alternative curriculum | |

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 | | | | | | | | | |
| 期中考成績 Midterm Exam | | | | | | | | | |
| 期末考成績 Final Exam | | | | | | | | | |
| 作業成績 Homework and/or Assignments | | | | | | | | | |
| 其他 Miscellaneous (_____) | | | | | | | | | |

評量方式補充說明

Grading & Assessments Supplemental instructions

1st
5% Class Participation
10% Homeworks
15% Midterm Project Proposal Presentation
20% Midterm Exam
2nd
5% Quiz
10% Homeworks
15% Final Project Presentation
20% Final Exam

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.)

Textbook

生產計畫與管理，第二版，林則孟著，華泰文化，2012.

References:

1. Sule, Dileep R. (2008) Production Planning and Industrial Scheduling: Examples, Case Studies and Applications, 2nd edition, CRC Press.
2. Pinedo, Michael L. (2016) Scheduling: Theory, Algorithms, and Systems, 5th edition, Springer.

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)