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②图玄束至大學

教學計劃表 Syllabus

課程名稱(中文) Course Name in Chinese	生產計劃與排程	2			學年/學期 Academic Year/Semester			
課程名稱(英文) Course Name in English	Production Planning and Scheduling							
科目代碼 Course Code	GSLM51900	系級 Department 碩士 & Year		開課單位 Course-Offering Department	運籌管理研究所			
修別 Type	選修 Elective	學分數/時 Credit(s)/Hou		3	3.0/3.0			
授課教師 Instructor	/陳怡君/馬綱廷							
先修課程 Prerequisite								
the factor of December 1								

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。

		課程目標與系專業能 力相關性
	系專業能力	Correlation between
	Basic Learning Outcomes	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	•
В	運籌系統管理知識 Knowledge on logistics system management	•
С	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	0

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/ Capacity Planning	
4	Capacity Planning	
5	Aggregate Planning (AP)	
6	Master Production Scheduling (MPS)	

Master Production Scheduling (MPS)/ Material Requirement Planning (MRP)							
9 Scheduling 10 Scheduling 11 Midterm Project Presentation 12 期中考试理 Midterm Exam 13 Inventory Management (EOQ) 14 Inventory Management (Newsboy Vendor) 15 Theory of Constraints (TOC) 16 Production Activity Control (PAC)/ Advanced Planning and Scheduling (APS) 17 Exam II 18 Final Project Presentation *** 数學 策略 Teaching Strategies *** 文字	7						
10 Scheduling 11 Midterm Project Presentation 12 期中考試週 Midterm Exam 13 Inventory Management (EDQ) 14 Inventory Management (Newsboy Vendor) 15 Theory of Constraints (TOC) 16 Production Activity Control (PAC)/ Advanced Planning and Scheduling (APS) 17 Exam II 18 Final Project Presentation *** 数學 策略 Teaching Strategies** *** 以業堂講授 Lecture	8	Material Requirement Planning (MRP)					
11 Midterm Project Presentation 12 期中考试週 Midterm Exam 13 Inventory Management (EOQ) 14 Inventory Management (Newsboy Vendor) 15 Theory of Constraints (TOC) 16 Production Activity Control (PAC)/ Advanced Planning and Scheduling (APS) 17 Exam II 18 Final Project Presentation	9	Scheduling					
12 期中考試週 Midterm Exam 13 Inventory Management (EOQ) 14 Inventory Management (Newsboy Vendor) 15 Theory of Constraints (TOC) 16 Production Activity Control (PAC)/ Advanced Planning and Scheduling (APS) 17 Exam II 18 Final Project Presentation	10	Scheduling					
13 Inventory Management (EOQ) 14 Inventory Management (Newsboy Vendor) 15 Theory of Constraints (TOC) 16 Production Activity Control (PAC)/ Advanced Planning and Scheduling (APS) 17 Exam II 18 Final Project Presentation	11	Midterm Project Presentation					
14 Inventory Management (Newsboy Vendor) 15 Theory of Constraints (TOC) 16 Production Activity Control (PAC) / Advanced Planning and Scheduling (APS) 17 Exam II 18 Final Project Presentation 数學 策略 Teaching Strategies ** **	12	期中考試週 Midterm Exam					
Theory of Constraints (TOC) 16 Production Activity Control (PAC)/ Advanced Planning and Scheduling (APS) 17 Exam II 18 Final Project Presentation *** 数學 第	13	Inventory Management (EOQ)					
Production Activity Control (PAC)/ Advanced Planning and Scheduling (APS) 17	14	Inventory Management (Newsboy Vendor)					
The content of the	15	Theory of Constraints (TOC)					
数 學 策 略 Teaching Strategies 数 學 策 略 Teaching Strategies 少課堂講授 Lecture 分組討論Group Discussion 李觀實習 Field Trip 其他Miscellaneous: 数 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 唐課師 Moocs 社會責任(Social Responsibility) 在地實踐Community Practice 產學合作 Industy-Academia Cooperation 跨域合作(Transdisciplinary Projects) 跨界教學Transdisciplinary Teaching 」跨院系教學Inter-collegiate Teaching 工作の表表表表表表表表表表表表表表表表表表表表表表表表表表表表表表表表表表表表	16						
教學策略 Teaching Strategies 读書講授 Lecture	17	Exam II					
▼課堂講授 Lecture	18	Final Project Presentation					
其他Miscellaneous: 数學創新自評Teaching Self-Evaluation		教學策略 Teaching Strategies					
教學創新自評 Teaching Self-Evaluation 創新教學(Innovative Teaching) 問題導向學習(PBL)	✓ 課堂講	授 Lecture					
創新教學(Innovative Teaching) □ 問題導向學習(PBL)	其他Mis	scellaneous:					
創新教學(Innovative Teaching) □ 問題導向學習(PBL)		教學創新自評Teaching Self-Evaluation					
翻轉教室 Flipped Classroom	創新教學(Innovative Teaching)					
社會責任(Social Responsibility) 【 在地實踐Community Practice	問題導	向學習(PBL) ■ 團體合作學習(TBL) 解決導向學習(SBL)					
□ 在地實踐Community Practice □ 產學合作 Industy-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	翻轉教室 Flipped Classroom 磨課師 Moocs						
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	— — — — — — 社會責任(Social Responsibility)						
■ 跨界教學Transdisciplinary Teaching ■ 跨院系教學Inter-collegiate Teaching ■ 業師合授 Courses Co-taught with Industry Practitioners	在地實踐Community Practice						
業師合授 Courses Co-taught with Industry Practitioners	跨域合作(Transdisciplinary Projects)						
	■ 跨界教學Transdisciplinary Teaching ■ 跨院系教學Inter-collegiate Teaching						
其它 other:	業師合:	授 Courses Co-taught with Industry Practitioners					
	其它 othe	其它 other:					

學期成績計算及多元評量方式 Grading & Assessments									
配分項目	配分比例 多元評量方式 Assessments								
Items	Percentage	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(含出缺席) General Performance (Attendance Record)									
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, 20% Midterm Project Presentation, 25% Midterm Exam

2nd: 5% Class Participation, 5% Homeworks, 20% Final Project Presentation, 10% Exam II

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.)

生產計畫與管理,第二版,林則孟著,華泰文化,2012.

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.)

- 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, Spinger.

其他補充說明(Supplemental instructions)