國立東華大學

課　　綱　Course Outline

運籌管理研究所碩士班一般組

中文課程名稱 Course Name in Chinese	系統模擬				
英文課程名稱 Course Name in English	System Simulation				
科目代碼 Course Code	GSLM53300	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					

<table>
<tr><td colspan="6" align="center">課程目標
Course Objectives</td></tr>
<tr><td colspan="6">sample space and sampling methods, calculus of probability, conditional probability,expectation, moments, discrete and continuous probability</td></tr>
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系教育目標
Dept.'s Education Objectives

1	培養具備管理科學與運籌供應鏈知識能力之專業人才。 To nurture professionals with knowledge and skills in management science, logistics, and supply chain management
2	培養具備邏輯思考與決策分析能力之管理專業人才。 To nurture management professionals with logical thinking and analytical decision skills
3	培養具備國際溝通與簡報能力之專業人才 To nurture bilingual professionals with communication and presentation skills
4	培養具有國際視野與在地經驗之運籌管理專才。 To nurture professionals in logistics management with global vision and local experience

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

課程大綱
Course Outline

1. introduction to simulation
2. simulation by coding
3. generation of random variates
4. input analysis of simulation
5. output analysis of simulation
6. optimization by simulation
7. simulation tools: Excel, general programming languages, ARENA

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.)

The course instructor should have training in simulation.
The course requires simulation packages

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

There are lectures to cover the theories of simulation and computer exercises
to provide hand-on simulation experience.

其他
Miscellaneous

The course is suitable for graduate students of any year.