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## ②國玄東華大學

# 教學計劃表 Syllabus

| 課程名稱(中文)<br>Course Name in Chinese | 微積分(二)       |                               |  | 學年/學期<br>Academic Year/Semester       |       | 113/2 |  |
|------------------------------------|--------------|-------------------------------|--|---------------------------------------|-------|-------|--|
| 課程名稱(英文)<br>Course Name in English | Calculus(II) |                               |  |                                       |       |       |  |
| 科目代碼<br>Course Code                | MSF_10010    | 系級<br>Department 學一<br>& Year |  | 開課單位<br>Course-Offering<br>Department | 應用數學系 |       |  |
| 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                 | /黄灝勻         |                               |  |                                       |       |       |  |
| 先修課程<br>Prerequisite               |              |                               |  |                                       |       |       |  |

#### 課程描述 Course Description

- Ch 6 Techniques of Integration
- Ch 7 Functions of Several Variables
- Ch 8 Trigonometric Functions
- Ch 9 Probability and Calculus
- Ch10 Series and Taylor Polynomials
- Chll Differential Equations

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#### 課程目標 Course Objectives

The purpose is to facilitate the students with tools in higher mathematics for later use in finance courses.

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      | Ch 5 Integration and Its Applications         |           |
| 2      | Ch 6 Techniques of Integration<br>Quiz 1      |           |
| 3      | Ch 6 Techniques of Integration                |           |
| 4      | Ch 7 Functions of Several Variables<br>Quiz 2 |           |
| 5      | Ch 7 Functions of Several Variables           |           |
| 6      | Ch 7 Functions of Several Variables<br>Quiz 3 |           |
| 7      | Ch 7 Functions of Several Variables           |           |
| 8      | Ch 7 Functions of Several Variables           |           |
| 9      | 期中考試週 Midterm Exam                            |           |
| 10     | Ch 8 Trigonometric Functions                  |           |

| 11  | Ch 8 Trigonometric Functions                    |  |  |  |  |  |  |
|---|---|--|--|--|--|--|--|
| 12  | Ch 9 Probability and Calculus<br>Quiz 3         |  |  |  |  |  |  |
| 13  | Ch 9 Probability and Calculus                   |  |  |  |  |  |  |
| 14  | Ch10 Series and Taylor Polynomials Quiz 4       |  |  |  |  |  |  |
| 15  | Ch10 Series and Taylor Polynomials              |  |  |  |  |  |  |
| 16  | Ch11 Differential Equations Quiz 5              |  |  |  |  |  |  |
| 17  | 期末考試週 Final Exam                                |  |  |  |  |  |  |
| 18  | Review your final exam score and overall grade. |  |  |  |  |  |  |
| 教 學 策 略 Teaching Strategies                                       |   |  |  |  |  |  |  |
| ✓ 課堂講   | ✓ 課堂講授 Lecture                                  |  |  |  |  |  |  |
| 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 ■ 産學合作 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                |   |  |  |  |  |  |  |
| 業師合   | 授 Courses Co-taught with Industry Practitioners |  |  |  |  |  |  |

| 學期成績計算及多元評量方式 Grading & Assessments |                    |                    |          |          |          |          |          |          |    |
|-------------------------------------|--------------------|--------------------|----------|----------|----------|----------|----------|----------|----|
| 配分項目                                | 配分比例<br>Percentage | 多元評量方式 Assessments |          |          |          |          |          |          |    |
| Items                               |                    | 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 General<br>Performance         | 30%                | >                  |          |          |          |          |          |          |    |
| 期中考成績 Midterm Exam                  | 35%                | >                  |          |          |          |          |          |          |    |
| 期末考成績 Final Exam                    | 35%                | <b>~</b>           |          |          |          |          |          |          |    |
| 作業成績 Homework and/or<br>Assignments |                    |                    |          |          |          |          |          |          |    |
| 其他 Miscellaneous                    |                    |                    | 日十七      |          |          |          |          |          |    |

評量方式補充說明

Grading & Assessments Supplemental instructions

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### 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.)

Larson-Calculus: An Applied Approach (Metric Edition)

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)