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② 图 2 東華大學

| 教学計劃表 Syllabus | | | | | | | | |
|--|--------------------------|-------------------------------|--|---------------------------------------|---------------------------|-------|--|--|
| 課程名稱(中文) Course Name in Chinese | 分析導論 | | | | 學年/學期 Academic Year/Se | 114/1 | | |
| 課程名稱(英文) Course Name in English | Introduction to Analysis | | | | | | | |
| 科目代碼 Course Code | AM58000 | 系級 Department 碩士 & Year | | 開課單位 Course-Offering Department | 應用數學系 | | | |
| 修別 Type | 必修 Required | 學分數/時/ Credit(s)/Hou | | | 3.0/3.0 | | | |
| 授課教師 Instructor | /胡鍇 | | | | | | | |
| 先修課程 Prerequisite | | | | | | | | |
| 課程描述 Course Description | | | | | | | | |
| 本課程因作為研究所學生修習實變函數論的銜接課程,所以將會介紹賦距空間與其拓樸觀念,連續函數,Riemann- Stieltjes積分,函數列以及收斂等等相關主題。 | | | | | | | | |

Course Objectives 課程目標

本課程主要目標以為高等數學分析課程或是相關課程之基礎。

Provide a smooth transition from college analysis to more advanced courses in analysis.

| | | 課程目標與系專業能 力相關性 |
|---|---|---------------------|
| | 糸專業能力 | Correlation between |
| | | Course Objectives |
| | Basic Learning Outcomes | and Dept.'s |
| | | Education |
| | | Objectives |
| A | 具備專業數學知識及邏輯推理能力。Have well-founded expertise in mathematics and be capable of logical reasoning. | • |
| В | 具備學習其它學科的能力,以期能邁向跨領域研究。Be able to study other fields of | |
| | science so as to conduct interdisciplinary research in the future | |
| С | 具備獨立思考與解決問題的能力。 Be capable of independent thinking and have the problem-solving 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 | Basic Topology | |
| 2 | Basic Topology | |
| 3 | Basic Topology | |
| 4 | Basic Topology | |
| 5 | Basic Topology, Continuous Functions | |
| 6 | Continuous Functions | |
| 7 | Continuous Functions | |
| 8 | The Riemann-Stieltjes Integral. | |

| 9 | 期中考試週 Midterm Exam (期中考於11/04的10:10開始) The Riemann-Stieltjes Integral | | | | | |
|---|---|--|--|--|--|--|
| 10 | 11/12停課。 The Riemann-Stieltjes Integral | | | | | |
| 11 | The Riemann-Stieltjes Integral | | | | | |
| 12 | The Riemann-Stieltjes Integral, Sequence of Functions | | | | | |
| 13 | Sequences of Functions | | | | | |
| 14 | Sequences of Functions | | | | | |
| 15 | Sequences of Functions | | | | | |
| 16 | Sequences of Functions | | | | | |
| 17 | (期末考於12/30的10:10開始) | | | | | |
| 18 | 期末考試週 Final Exam (彈性補充教學,自主學習週) | | | | | |
| | 教學策略 Teaching Strategies | | | | | |
| ✓ 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 | | | | | | |
| 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 | 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 General Performance | | | | | | | | | |
| 期中考成績 Midterm Exam | 50% | > | | | | | | | |
| 期末考成績 Final Exam | 50% | ~ | | | | | | | |
| 作業成績 Homework and/or Assignments | | | | | | | | | |
| 其他 Miscellaneous | | | | | | | | | |

評量方式補充說明

Grading & Assessments Supplemental instructions

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.)

W. Rudin, Principles of Mathematical Analysis, 3rd. ed., McGraw-Hill Inc., 1976.

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)