

107 學年度【應用數學系碩士在職專班】課程架構

畢業學分 28 學分(不含論文)

| 類別 | 科目中文名稱 | 科目英文名稱 | 修別 | 學分 | 時數 | 備註 |
|--------|----------|--|-------|----|----|----|
| 必修課程 | 書報討論(一) | Seminar(I) | 必 | 2 | 2 | |
| | 書報討論(二) | Seminar(II) | 必 | 2 | 2 | |
| 應用數學領域 | 分析通論 | General Analysis | 選 | 3 | 3 | |
| | 代數通論 | General Algebra | 選 | 3 | 3 | |
| | 機率學 | Probability Theory | 選 | 3 | 3 | |
| | 統計學 | Statistics | 選 | 3 | 3 | |
| | 模糊集理論(一) | Theory of Fuzzy Sets (I) | 選 | 3 | 3 | |
| | 模糊集理論(二) | Theory of Fuzzy Sets (II) | 選 | 3 | 3 | |
| | 模糊數學特論 | Topics in Fuzzy Mathematics | 選 | 3 | 3 | |
| | 多變量分析 | Multivariate Analysis | 選 | 3 | 3 | |
| | 變異數分析 | Analysis of Variance | 選 | 3 | 3 | |
| | 離散數學進階 | Advanced Discrete Mathematics | 選 | 3 | 3 | |
| | 圖形學 | Graph Theory | 選 | 3 | 3 | |
| | 交換網路 | Switching Networks | 選 | 3 | 3 | |
| | 常微分方程 | Ordinary Differential Equations | 選 | 3 | 3 | |
| | 偏微分方程 | Partial Differential Equations | 選 | 3 | 3 | |
| | 科學計算 | Scientific Computing | 選 | 3 | 3 | |
| | 專題研究(一) | Research on Special Topics(I) | 選 | 3 | 3 | |
| | 專題研究(二) | Research on Special Topics(II) | 選 | 3 | 3 | |
| | | 其他 | Other | 選 | | |
| | 質的研究法 | Qualitative Research in Mathematics Education | 選 | 3 | 3 | |
| | 量的研究法 | Quantitative Research in Mathematics Education | 選 | 3 | 3 | |

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| 數 學 教 育 領 域 | 數學科教材教法理論與研究(一) | Teaching Content and Methods in Mathematics(I) | 選 | 3 | 3 | |
| | 數學科教材教法理論與研究(二) | Teaching Content and Methods in Mathematics (II) | 選 | 3 | 3 | |
| | 數學學習心理學研究 | Research in the Psychology of Learning Mathematics | 選 | 3 | 3 | |
| | 教育研究法 | Methods in Educational Research | 選 | 3 | 3 | |
| | 論文寫作專題 | Topics in Thesis Writing | 選 | 3 | 3 | |
| | 高等教育統計學 | Advanced Educational Statistics | 選 | 3 | 3 | |
| | 數學教學研究 | Study of Mathematics Teaching | 選 | 3 | 3 | |
| | 數學軟體應用 | Applied Mathematics Softwares | 選 | 3 | 3 | |
| | 數學科電腦輔助教學系統研究 | Research in Computer-Assisted Instruction | 選 | 3 | 3 | |
| | 數學課程理論研究 | Study of Mathematics Curriculum Theory | 選 | 3 | 3 | |
| | 教師專業發展 | Development of Teacher Professional Instruction | 選 | 3 | 3 | |
| | 數學教學媒體設計研究 | Research in Design of Mathematics Media | 選 | 3 | 3 | |
| | 數學遊戲設計研究 | Design and Analysis of Mathematical Puzzles | 選 | 3 | 3 | |
| | 數學教師成長 | The Growth of Mathematics Teacher | 選 | 3 | 3 | |
| | 科展設計研究 | Design and Analysis of Science Fair | 選 | 3 | 3 | |
| | 數學補救教學研究 | Design and Analysis of Mathematics Remedial Teaching | 選 | 3 | 3 | |
| | 數學科教材編輯與製作 | Editing and Design of Curriculum in Mathematics | 選 | 3 | 3 | |
| | 數學迷思概念研究 | Study of Mathematics Misconcepts | 選 | 3 | 3 | |
| | 數學解題研究 | Study of Mathematics Problem Solving | 選 | 3 | 3 | |
| | 數學科錯誤類型分析 | Analysis of Error Types in Mathematics | 選 | 3 | 3 | |
| 專題研究(一) | Research on Special Topics(I) | 選 | 3 | 3 | | |
| 專題研究(二) | Research on Special Topics(II) | 選 | 3 | 3 | | |
| 其他 | Other | | | | | |