



課 綱 Course Outline

教育與潛能開發學系科學教育博士班

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| 中文課程名稱 Course Name in Chinese | 原住民文化脈絡與科學教學 | | | | | | | | | |
| 英文課程名稱 Course Name in English | Indigenous Cultural Context and Science Teaching | | | | | | | | | |
| 科目代碼 Course Code | SCE_71800 | 班 別 Degree | 博士班 Ph. D. | | | | | | | |
| 修別 Type | 選修 Elective | 學分數 Credit(s) | 3.0 | 時 數 Hour(s) | 3.0 | | | | | |
| 先修課程 Prerequisite | | | | | | | | | | |
| 課程目標 Course Objectives | | | | | | | | | | |
| 1. 討論科學本質 2. 認識世界觀(world view)與原住民知識(indigenous knowledge) 3. 瞭解原住民學生學習數理的特質與困難 4. 學習跨越藩籬(border crossing)的科學課程設計 5. 認識去殖民方法論(decolonizing methodology) | | | | | | | | | | |
| 系教育目標 Dept.'s Education Objectives | | | | | | | | | | |
| 1 | 培養從事科學教育學術研究的進階人才。 To cultivate advanced talents in science education study | | | | | | | | | |
| 2 | 培養具備國際視野及在地關懷的科學教育專業領導者。 To cultivate professional leaders in science education with global perspective and local concern | | | | | | | | | |
| 3 | 培養科學教育創新的專業領導者。 To cultivate professional leaders for science education innovation | | | | | | | | | |
| 4 | 培養各級學校科學教學領航者。 To cultivate science teaching leaders of all levels of school | | | | | | | | | |
| 5 | 培養大眾科學教育及科學傳播的專業人才。 To cultivate the professional talents of science communication and public science education | | | | | | | | | |
| 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 | | | | | | |

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| A | 具備科學教育專業理論發展與實踐之素養。 To possess the capacity to develop and practice theories in science education | |
| B | 具備科學教育獨立研究素養。 To possess the ability of independent study focusing on science education | ○ |
| C | 具備科學教育的創新與問題解決素養。 To possess creativity in science education and the ability of problem solving | ○ |
| D | 具備國際學術交流之素養。 To possess the ability of international academic exchanges | |
| E | 具備科學教學專業素養。 To possess the ability and professional knowledge in science education | ○ |

圖示說明 Illustration : ● 高度相關 Highly correlated ○中度相關 Moderately correlated

| 課程大綱 Course Outline | |
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| 1. 討論科學本質 | |
| 2. 認識世界觀(world view)與原住民知識(indigenous knowledge) | |
| 3. 瞭解原住民學生學習數理的特質與困難 | |
| 4. 學習跨越藩籬(border crossing)的科學課程設計 | |
| 5. 認識去殖民方法論(decolonizing methodology) | |

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.)

曾經從事原住民科學教育相關研究者。

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

教學方式為：課前閱讀，口頭報告、課堂討論、作業、田野調查。

學生需揪受安排進行田野調查。

| 其他 Miscellaneous |
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