



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 | 科學創造力 | | | | |
| 英文課程名稱 Course Name in English | Creativity in Science | | | | |
| 科目代碼 Course Code | SCE_71990 | 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 | | | | | |
| 一、認識促進科學創造力之理論與研究方法。 二、了解並能應用提升科學創造力之策略。 三、培養熱心探究科學創造力及其議題的態度。 | | | | | |
| 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 | |
| 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 | | | | |

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| 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

1. 科學創造力之理論。
2. 科學創造力環境之營造。
3. 科學創造力實例與實務操作。
4. 科學創造力評鑑與反思。

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.)

師資以科學教育、學習心理學、自然與生活科技教材教法為宜。
儀器設備包括：電腦、投影機、各種探究與實作實驗器材。

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

講解、討論、科學探究與實作、科學創造力教案設計、見習與反思

其他 Miscellaneous

本課程為國民小學教師自然領域加註專長課程之一。