# 國立台灣科技大學 114學年 第2學期　課程大綱

## Spring 2026 NTUST Course Outline

授課教師：曾修暘

Instructor:Hsiuyang Tseng

課程名稱：研究方法

Course Title：Research Methodology

2026/11/4

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| 課程代號： ME5910306<br>Course Code<br>學分數： 0<br>Credits | 必選修：必修/半學年<br>Required/Electve:Required/Half Yr.<br>先修課程：<br>Prerequisites |
| 節次教室：<br>Time/Location | W8(TR-413-1) W9(TR-413-1) |
| 專業核心能力：<br>Core Professional Competencies | □ 機械工程之專業知識<br>□ 規劃與執行專題研究之能力<br>□ 專業論文與報告之撰寫和表達能力<br>□ 創新思考與獨立研究之能<br>□ 解決問題與協調整合之能力<br>□ 自我成長之能力(人文素養與服務精神、專業倫理與終身學習) |
| 課程網址：<br>Course Website | Moodle |
| 課程宗旨：<br>Course Objectives | This course is designed as an introduction to research methods for graduate students. It will cover fundamental research concepts and commonly used research methodologies. Through individual and group discussions, students will be trained to develop research proposals and write research reports. By the end of the course, students are expected to be familiar with various research methods, understand the processes of formulating research questions, developing theoretical frameworks, conducting literature reviews, conceptualization and operationalization, sampling, and data analysis. They should also be able to critically evaluate existing research and conduct independent research.<br><br>本課程設定為研究所量化研究方法入門，將介紹研究的基本概念及常用的研究方法，並透過個人與小組的實際計畫操作，訓練學生發展研究計畫、撰寫研究報告的能力。修課同學應熟悉各種量化研究方法的運用，了解題目設定、理論發展、文獻蒐集、概念化與操作化、抽樣及資料分析等過程，對既有量化研究進行批判性地評估，並能進行獨立研究。 |
| 課程大綱：<br>Outline of Lectures | 1.To introduce the basic concept of research methodology that applies in academic and practical research.<br>2.To learn the methods of conducting research processes, designing research strategies, collecting and analyzing research data, and preparing research proposals and reports.<br>3.To know how to obtain the required information through appropriate approaches in writing research papers and solving management problems.<br><br>1.介紹研究方法的基本概念並應用在學術及實務研究上。<br>2.學習研究過程的方法，設計研究策略，收集和分析研究數據，準備研究方案和報告。<br>3.了解如何通過撰寫研究論文和解決管理問題的適當方法來獲得所需資訊。 |
| 授課方式：<br>Method of Instruction | 講授 Lecture：0%<br>分組討論 Group discussion：100%<br>案例研討 Case study：0% |

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| | 操做練習 Practical exercises：0%<br>講授 Lecture：% |
| 教科書：<br>Textbooks | N/A |
| 參考書目：<br>References | N/A |
| 修課須知：<br>Notice | EMI<br>Taught in English. |
| 評量方式：<br>Grading | Attendance and participation |
| 備註說明：<br>Notes | N/A |