

國立屏東大學 110學年度第2學期 教學課程綱要

※為保護智慧財產權，請勿非法影印教科書。

班別：資訊工程學系碩士班一年級(BBB110)

課程學分數：3.00(3.00小時)

授課老師：吳卓俊(227006)

必選修：選

開課序號	1000
科目名稱	高等作業系統(BFBZ008)
科目英文名稱	Advanced Operating System
授課語言	英語/全外語授課
主要教學型態	課堂教學
教學目標	This course focuses on some selected advanced topics of operating systems, such as task scheduling with/without shared resources, energy-efficient design for embedded systems, and real-time operating systems. It also covers the implementation in a simulation platform.
每週課程內容及教學方法	Week 1: (lecture and discussion): scheduling theory and practice 1 Week 2: (lecture and discussion): scheduling theory and practice 2 Week 3: (lecture and discussion): scheduling theory and practice 3 Week 4: (lecture and discussion): scheduling theory and practice 4 Week 5: (lecture and discussion): synchronization methodologies 1 Week 6: (lecture and discussion): synchronization methodologies 2 Week 7: (lecture and discussion): synchronization methodologies 3 Week 8: (lecture and discussion): synchronization methodologies 4 Week 9: midterm Week 10: (lecture and discussion): real-time operating system 1 Week 11: (lecture and discussion): real-time operating system 2 Week 12: (lecture and discussion): real-time Linux 1 Week 13: (lecture and discussion): real-time Linux 2 Week 14: (lecture and discussion): real-time Linux 3 Week 15: (lecture and discussion): real-time Linux 4 Week 16: oral presentation and discussion Week 17: oral presentation and discussion Week 18: final exam
核心能力	1. 理論創新與系統整合開發能力 55% 2. 獨立研究與團隊領導能力 35% 3. 社會關懷與良好溝通表達能力 0% 4. 職場工作觀與學習能力 10%
預期學習成果	1. Students will be able to design scheduling/synchronization algorithms and synchronization protocols for operating system. 2. Students will be able to design energy-efficient embedded systems. 3. Students will be able to verify and to evaluate approaches in a simulation platform.

與預期學習成果 搭配的多元評量	The assessments are for the ILO 1 to 3 are as follows: ILO 1: Exam (30%), Homework (50%), Oral presentation (20%) ILO 2: Exam (30%), Homework (50%), Oral presentation (20%) ILO 3: Implementation (100%)
主要讀本	TBA
參考書目	Selected papers in related research topics.
其他事項	none