國立東華大學

課　綱　Course Outline
光電工程學系學士班

中文課程名稱 Course Name in Chinese	數位設計實驗				
英文課程名稱 Course Name in English	Digital Design laboratory and experiments				
科目代碼 Course Code	OE__10460	班　別 Degree	學士班 Bachelor's		
修別 Type	學程 Program	學分數 Credit(s)	1.0	時　數 Hour(s)	3.0
先修課程 Prerequisite					

課程目標 Course Objectives

培養工程領域的基礎能力：程式邏輯、電腦輔助設計、自動控制實作與機電整合概論

系教育目標 Dept.'s Education Objectives

1	傳授科學知識，培訓實用技能 Acquire science knowledge, develop practical skills
2	培養工程倫理，啟發創新思維 Sublimate engineering ethics, encourage creative thinking
3	培養團隊精神，促進協調合作 Promote teamwork spirit, inspire coordination and cooperation

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	具有光電相關的物理、化學、材料及數學的知識。 Physics, chemistry, material, and math knowledge related to opto-electronic engineering	●
B	具有光電工程的專業知識及應用能力。 Professional knowledge and application ability of opto-electronic engineering	●
C	具有設計與執行實驗、報告撰寫與數據解釋之能力。 Abilities to design and execute experiment, write reports, and explain data	●
D	使用儀器進行物件的分析及測試。 Analysis and test of devices by instruments	●

E	具備適當的英文能力，應用於學習與交流。 English language ability to study and interac	○
F	具有良好的溝通與團隊合作的能力。 Ability to communicate and teamwork	●
G	具有創新思維及終身學習的能力。 Creative thinking and life-long learning ability	○

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

課程大綱
Course Outline

1. Digital design tools
2. Open source hardware
3. Fundamental programming
4. Sensors and controllers
5. Case study

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.)

電腦教室

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

其他
Miscellaneous