朝陽科技大學 099學年度第1學期教學大綱
Virtual Reality System 虛擬實境

當期課號	1591	Course Number	1591
授課教師	鄭宗明	Instructor	CHENG,TZONG MING
中文課名	虛擬實境	Course Name	Virtual Reality System
開課單位	工業工程與管理系(四日)二A	Department	
修習別	選修	Required/Elective	Elective
學分數	3	Credits	3
課程目標	虛擬實境是一種人造的3D模擬場景，此種場景若搭配恰當設計之人機介面與電腦動畫，將可充分的描述實際物體之性質並模擬實物間之關係。此種新理念已經獲得許多專業領域之重視與採用，例如：醫學、軍事、工程和科學、娛樂事業、教育以及廣告業。它藉由電子式的編輯與運算環境塑造了吸引人且有效率之表達工具，並具備豐富的潛力在於呈現創造力、實現新發明、執行實驗、認知和理解，以及探索新境界上。學習虛擬實境之觀念與技法將可有效的協助開發先進理念之理想架構。修習本課程之目標在於理解虛擬與實境之關係、學習設計虛擬環境與操作者之介面，以及應用套裝軟體設計虛擬環境。	Objectives	Virtual environment is a man-made, computer-generated conceptual space that emulates selective 3D space(s) of the physical reality. A properly designed control interface and graphic scene may facilitate the interaction between the users and the virtual reality (VR) system. VR has the advantage and potential to solve problems in many professional areas, such as medicine, military, entertainment, education, business, and engineering. Innovative advancements in those areas may also be generated by the use of VR. This course will review state-of-the-art VR creations from all over the world, and learn the basic VR editing skills. At the end of the course, students should be able to generate effective VR works that facilitate desired subjects.
教材	Understanding Virtual Reality, W. R. Sherman & A. B. Craig, Morgan Kaufmann Virtools 電子教材, 愛迪斯科技股份有限公司 自製教案	Teaching Materials	Understanding Virtual Reality, W. R. Sherman & A. B. Craig, Morgan Kaufmann Virtools Electronic User manual, by Axis3D Inc. Course Handouts
成績評量方式	期中考 30% 期末報告 50% 平時成績 20%	Grading	Midterm 30% Final Project 50% Classroom Performance 20%
教師網頁			
教學內容	本課程將介紹虛擬實境(Virtual Reality)科技之現況、應用、及未來發展，課程內容並將簡介虛擬實境軟體Virtools之操作與實作，目標在使學習者能藉由軟體之功能，自行製作並開發視覺化之互動式虛擬實境主題，使應用於各類工程應用之議題上。	Syllabus	This course will introduce current technologies, applications, and future developments on Virtual Reality. The curriculum also provides authoring techniques for the VR software Virtools for students to develop visualized and interactive functions on all aspects of engineering or related topics.

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