112-2 Full Curriculum of Da-Yeh University

Information			
Title	Virtual Reality Design	Serial No./ID	0489 /MDI3034
Required/Credit	Optinal /3	Time/Place	(Fri)567 /H615
Language	Chinese	Grade Type	Number
Lecturer /Full- or Part-time	JHENG-WEI,YANG /Part-time	Graduate Class	Graduating Class
School System /Dept /Class, Grade	Bachelor /Bachelor Program for Multimedia Digital Content /Class 2, Grade 4		
Office Hour / Place	n.a.		
Lecturer	n.a.		

Introduction

Virtual reality is the emerging computer application technology in recent years. It is a combination of computer graphics, computer simulation, artificial intelligence, sensing and display processing technology. It uses computer simulation to generate virtual world in three-dimensional space and provides user the artificial environment of comprehensive perception, such as viewing, hearing and touching, and people are immersed in the computer context, and can interact with it to feel the sound and light effects like the real world. In addition to teaching the basic principles and techniques of designing a virtual reality system, the objective of this course is to implement some virtual reality projects, such as interactive virtual art exhibition project and 3D interactive games.

Outline

1. Introduction to virtual reality
2. Introduction to hardware and software of virtual reality
3. Virtual reality experience
4. Implementation of virtual reality projects

Prerequisite

none

The Relationship Between Courses and Departmental Core Competencies and Basic Skills

- Acquire professional knowledge of multimedia digital content design
- Acquire the technologies, skills and the capability of using modern tools for practicing multimedia digital content design
- Acquire the capability of integrating multimedia digital content knowledge and technologies
- Acquire the capability of finding out, analyzing and solving complex interdisciplinary multimedia design problems

Acquire the capability of managing project, communicating each other, respecting different viewpoints and

cooperating within the team

Acquire the capability of lifetime learning。

- Acquire the capability of collecting, interpreting and analyzing global multimedia industry trends, and participating in multimedia practical design。

Acquire professional working ethics and society responsibility

- Acquire the humanities and arts accomplishment, and the capability of creative thinking and innovative design。

Teaching Plan						
Core Capability	Weight(%)【A】	Ability index(Performance Indicators)	Teaching Methods	Assessment and Weight	Core Competency Learning Outcomes【B】	Final Exam Grades【C=B*A】
Acquire professional knowledge of multimedia digital content design	30	Cultivate the capability of realizing multimedia digital content theory。 Cultivate the capability of being familiar with multimedia digital content knowledge。 Cultivate the capability of being possessed of multimedia digital content professional knowledge, including animation, comic, game design, and so on。 Cultivate the capability of being possessed of multimedia digital content design quality and accomplishment, including cultural creativity, art, esthetics, and so on。	Lecturing Practical Operation (Experiment, Machine Operation	Homework Assignment: 100%	Total: 100	30
Acquire the technologies, skills and the capability of using modern tools for practicing multimedia digital content design	25	Cultivate the capability of being possessed of and applying multimedia digital content professional design technologies and skills。 Cultivate the capability of implementing multimedia digital content system。 Cultivate the capability of using modern multimedia software and hardware tools。	Lecturing Practical Operation (Experiment, Machine Operation	Final Exam: 100%	Total: 100	25

Acquire the capability of integrating multimedia digital content knowledge and technologies	15	Cultivate the capability of integrating theoretical knowledge and practical technology。 Cultivate the capability of integrating visual communication, information technology and content management knowledge。	Lecturing Practical Operation (Experiment, Machine Operation	Product Manufacturing: 100%	Total: 100	15
Acquire the capability of finding out, analyzing and solving complex interdisciplinary multimedia design problems	10	Cultivate the capability of exploring complex multimedia design problems。 Cultivate the capability of solving and practicing complex multimedia design systems。 Cultivate the capability of analyzing and organizing complex multimedia design problems。	Lecturing Practical Operation (Experiment, Machine Operation	Course Participation: 100%	Total: 100	10
Acquire the humanities and arts accomplishment, and the capability of creative thinking and innovative design。	15	Cultivate the humanities and arts accomplishment。 Cultivate the capability of creative thinking。 Cultivate the capability of innovative design。	Lecturing Practical Operation (Experiment, Machine Operation	Product Manufacturing: 100%	Total: 100	15
Acquire the capability of collecting, interpreting and analyzing global multimedia industry trends, and participating in multimedia practical design。	5	Cultivate the capability of realizing the global industrial issues of multimedia digital content。 Cultivate the capability of understanding the effects of multimedia design to industries, societies, and worldwide。 Cultivate working proficiency in career of multimedia digital content。 Cultivate the capability of great foresight and international view。	Lecturing Practical Operation (Experiment, Machine Operation	Final Exam: 100%	Total: 100	5

Grade Auditing

Homework Assignment: 30%
Final Exam: 30%
Product Manufacturing: 30%
Course Participation: 10%

Book Type (Respect intellectual property rights. Please use official textbooks and do not illegally photocopy others' works.)

Book Type	Book name	Author
Reference Books	VR虛擬實境學習手冊：為桌面應用、網頁、行動裝置打造身臨其境的體驗	Tony Parisi

Lesson Plan

Weeks	Content	Teaching Methods
1	學期內容與評分標準 & Intellectual Property Protection (use legitimate textbooks only) & Traffic safety Propaganda	Lecturing
2	VR介紹與360影片分享	Lecturing
3	基礎VR專案實作1	Lecturing、 Practical Operation (Experiment, Machine Operation
4	基礎VR專案實作2	Lecturing、 Practical Operation (Experiment, Machine Operation
5	基礎VR專案實作3	Lecturing、 Practical Operation (Experiment, Machine Operation
6	基礎VR專案實作4	Lecturing、 Practical Operation (Experiment, Machine Operation
7	基礎VR專案實作5	Lecturing、 Practical Operation (Experiment, Machine Operation
8	基礎VR專案實作6	Lecturing、 Practical Operation (Experiment, Machine Operation
9	期中考	Practical Operation (Experiment, Machine Operation
10	進階VR實戰1	Lecturing、 Practical Operation (Experiment, Machine Operation
11	進階VR實戰2	Lecturing、 Practical Operation (Experiment, Machine Operation

12	進階VR實戰3	Lecturing、 Practical Operation (Experiment, Machine Operation
13	進階VR實戰4	Lecturing、 Practical Operation (Experiment, Machine Operation
14	進階VR實戰5	Lecturing、 Practical Operation (Experiment, Machine Operation
15	進階VR實戰6	Lecturing、 Practical Operation (Experiment, Machine Operation
16	進階VR應用分享1	Lecturing、 Practical Operation (Experiment, Machine Operation
17	進階VR應用分享2	Lecturing、 Practical Operation (Experiment, Machine Operation
18	期末考	Practical Operation (Experiment, Machine Operation