

108-2 Full Curriculum of Da-Yeh University

Information			
Title	3D Game Design	Serial No./ID	0714 /MDI3027
Required/Credit	Optinal /3	Time/Place	(Mon)234 /PX302
Language	Chinese	Grade Type	Number
Lecturer /Full- or Part-time	Cherng Jong Sheng /Full-time	Graduate Class	Non-graduating Class
School System /Dept /Class, Grade	Bachelor /Bachelor Program for Multimedia Digital Content /Class 1, Grade 3		
Office Hour / Place	(Tue) 10:10~11:00, (Tue) 11:10~12:00, (Tue) 14:20~15:10, (Tue) 15:20~16:10 / H318		
Lecturer	n.a.		

Introduction

This course is designed to help students in the use of 3D game engine for developing various types of digital games. The specific goal is to let students be familiar with Unity 3D digital game production processes and techniques, integrate the game objects into Unity produced from 3dMax, Maya or iClone, and write game scripts.

Outline

- 1.3D digital game planning
- 2.Unity 3D game scene and object design
- 3.Unity 3D game programming
- 4.Unity 3D game design, integration and test

Prerequisite

Introduction to game design,Basic game programming,3dMax skill,Maya skill and iClone skill.

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 creative thinking and innovational design
- Acquire the capability of managing project, communicating each other, respecting different viewpoints and cooperating within the team
-  Realize the industrial issues and understand the effects of multimedia design to industries, social ecology and economy, and worldwide



Acquire the capability of lifetime learning

Acquire professional working ethics and society responsibility

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	20	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 Cultivate the capability of realizing multimedia digital content theory	Lecturing Practical Operation (Experiment, Machine Operation Group Work	Course Participation: 15% Product Manufacturing: 30% Written Report: 20% Experiment Operation: 30% Assistant Observation Record: 5%	Total: 100	20
Acquire the technologies, skills and the capability of using modern tools for practicing multimedia digital content design	30	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 Group Work	Product Manufacturing: 30% Course Participation: 15% Written Report: 20% Assistant Observation Record: 5% Experiment Operation: 30%	Total: 100	30

Acquire the capability of integrating multimedia digital content knowledge and technologies	10	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 Group Work	Course Participation: 15% Product Manufacturing: 30% Experiment Operation: 30% Written Report: 20% Assistant Observation Record: 5%	Total: 100	10
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 Group Work	Product Manufacturing: 30% Course Participation: 15% Written Report: 20% Assistant Observation Record: 5% Experiment Operation: 30%	Total: 100	10
Acquire the capability of creative thinking and innovational design	15	Cultivate the capability of creative thinking Cultivate the capability of innovational design	Lecturing Practical Operation (Experiment, Machine Operation Group Work	Product Manufacturing: 30% Course Participation: 15% Written Report: 20% Experiment Operation: 30% Assistant Observation Record: 5%	Total: 100	15
Realize the industrial issues and understand the effects of multimedia design to industries, social ecology and economy, and worldwide	10	Cultivate the capability of realizing the industrial issues of multimedia digital content Cultivate the capability of understanding the effects of multimedia design to industries, societies, and worldwide Cultivate the capability of great foresight and international view	Lecturing Practical Operation (Experiment, Machine Operation Group Work	Product Manufacturing: 30% Course Participation: 15% Written Report: 20% Assistant Observation Record: 5% Experiment Operation: 30%	Total: 100	10

Acquire the capability of lifetime learning	5	Cultivate the capability of lifetime learning by different ways	Lecturing Practical Operation (Experiment, Machine Operation Group Work	Course Participation: 15% Product Manufacturing: 30% Written Report: 20% Experiment Operation: 30% Assistant Observation Record: 5%	Total: 100	5
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Grade Auditing

Experiment Operation: 30%
Product Manufacturing: 30%
Written Report: 20%
Course Participation: 15%
Assistant Observation Record: 5%

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

Book Type	Book name	Author
Instructor-compiled	略	略

Lesson Plan

Weeks	Content	Teaching Methods
1	3D game planning (I) & Intellectual Property Protection (use legitimate textbooks only) & Traffic safety Propaganda	Lecturing、Practical Operation (Experiment, Machine Operation
2	3D game planning (II)	Lecturing、Practical Operation (Experiment, Machine Operation
3	Unity 3D game object and scene design (I)	Lecturing、Practical Operation (Experiment, Machine Operation
4	Unity 3D game object and scene design (II)	Lecturing、Practical Operation (Experiment, Machine Operation
5	Unity 3D game object and scene design (III)	Lecturing、Practical Operation (Experiment, Machine Operation

6	Unity 3D game object and scene design (IV)	Lecturing、 Practical Operation (Experiment, Machine Operation
7	Unity 3D game programming (I)	Lecturing、 Practical Operation (Experiment, Machine Operation
8	Unity 3D game programming (II)	Lecturing、 Practical Operation (Experiment, Machine Operation
9	Midterm	Practical Operation (Experiment, Machine Operation、 Special Report
10	Unity 3D game programming (III)	Lecturing、 Practical Operation (Experiment, Machine Operation
11	Unity 3D game programming (IV)	Lecturing、 Practical Operation (Experiment, Machine Operation
12	Unity 3D game programming (V)	Lecturing、 Practical Operation (Experiment, Machine Operation
13	Unity 3D game programming (VI)	Lecturing、 Practical Operation (Experiment, Machine Operation
14	Unity 3D game programming (VII)	Lecturing、 Practical Operation (Experiment, Machine Operation
15	Unity 3D game programming (VIII)	Lecturing、 Practical Operation (Experiment, Machine Operation
16	Unity 3D game design, integration and test (I)	Lecturing、 Practical Operation (Experiment, Machine Operation
17	Unity 3D game design, integration and test (II)	Lecturing、 Practical Operation (Experiment, Machine Operation
18	Final	Practical Operation (Experiment, Machine Operation、 Special Report