

佛光大學 課程大綱 Course Outline

課程名稱 Course Name in Chinese	電腦輔助設計 (二)				
英文課程名稱 Course Name in English	Computer-Aided Design(II)				
科目代碼 Course Code	PM252			班別 Degree	<input checked="" type="checkbox"/> 學士班 Undergraduate Program <input type="checkbox"/> 碩士班 Masters Program <input type="checkbox"/> 博士班 PhD Program
學分數 Credit	3	時數 Hour	3	修別 Type	<input type="checkbox"/> 必修 Required <input checked="" type="checkbox"/> 選修 Elective
學程別 Program	<input type="checkbox"/> 通識教育 General Education <input type="checkbox"/> 院基礎 Foundation <input type="checkbox"/> 跨領域 Interdisciplinary <input type="checkbox"/> 系核心 Core <input checked="" type="checkbox"/> 學系專業選修 Specialized Elective				
先修課程 prerequisite	Computer-Aided Design (一)				
課程描述 Course Description					
In the course, students learn advanced model construction skills of computer-assisted design and how to use the related model construction tools in different situations. The course aims to cultivate students' ability to use technology and information tools and practical experience. Thus, in the future, they can immediately adapt to real workplace.					
課程目標 Course Objectives					
1. Be familiar with advanced model construction of computer-assisted design software and editing function 2. Be familiar with different methods and occasions of model construction 3. Be able to set up and create materials and lighting effect 4. To master setting and editing of image posting and render effect 5. To combine the operational skills and control the switching of software					
教育目標 Education Objectives					
1	Cultivation of professional capability of products and media				
2	Cultivation of design capability of cultural and creative industry				
3	Cultivation of professional ethics and social concern				
4	Aesthetic practice in life, live and career education				
核心能力 (專業能力) Learning Outcomes (Basic Learning Outcomes)					課程目標與基本素養 與核心能力相關性 Correlation between Course Objectives and learning Outcomes
A	Professional knowledge				★

B	Design Technology	★
C	Humanities	◎
D	Creative Thinking	★
E	Information Technology	★
F	Communication and expression	◎

圖示說明：Illustration：★高度相關 Highly correlated ◎中度相關 Moderately correlated

課程綱要

Course Outline

週次	課程內容： (含每週授課主題及進度)	備註
一	Introduction of instructional goals and course content	Advanced model construction skill
二	Basic rectangle structure of NURBS	Basic rectangle structure of NURBS curve
三	The establishment of the curve	Number of levels of curve, curve and continuity of curved surface, curve continuity and curvature image and advanced skill to control continuity
四	Continuity of curved surface	Analysis of curved surface continuity, construction of curved surface instruction upon calculation and meeting among rounded corners
五	Model construction upon history	Start, use and support construction history
六	Advanced Surfaces skills	Vaulted button, alias, smooth curve and control form of curved surface
七	Using background images	How to construct curve according to background and smooth the curve before constructing curved surface
八	Modeling method	Concern about the importance of reflection, fluid, air power or editing control point
九	2D graphics	Model constructed by 2D construction diagram
十	Surface Analysis	Curved surface constructed by curved surface connection and analytical tool
十一	Shaping	General curved surface is formed by creative and direct methods by different changes and analytical tools in 3D space
十二	To transform NRUBS into mesh	Construction of mesh, construction and editing of mesh items
十三	Advanced Rendering (一)	Effect caused by render without structure line, color adjustment, transparency and environmental lighting

十四	Advanced Rendering (二)	By Flamingo, it combines different colors, reflection, transparency, light reflection, several pictures or procedural image posting to product material render
十五	Comprehensive Exercises	Car Styling 3D Modeling and Rendering
十六		
十七		
十八	Final Publication	
資源需求評估 (師資專長之聘任、儀器設備配合...等) Resources Required (e.g. qualifications and expertise, instrument and equipment, etc.)		
<ul style="list-style-type: none"> ● Teachers must have experience of computer-assisted design ● Teachers must have good communication and negotiation capability ● Teachers must have Level-1 and Level-2 educational training experience ● Equipment of computer classrooms is required. Computers must have at least 1G of independent video card and 4G of memory 		
課程要求及教學方式之建議 Course Requirements and Suggested Teaching Methods		
<ul style="list-style-type: none"> ● Theory illustrate and explain. ● Actual use of computers ● In order to cultivate students' professional design literacy and sense of responsibility, students should submit the assignments before the deadline. The delayed submission is allowed within one week for the concern of emergency and sickness. Grades of the assignments will be 20% off. Without the submission of the assignments with proper reasons, the students will receive the grades as 0. ● Regular calls in classes; regarding students who cut classes without specific reasons for at least four times, the examination will be failed according to rules of schools. 		
其他 Miscellaneous		