

Class Syllabus – Spring Semester, 114 Academic Year

Department of Mechanical Engineering, National Chung Cheng University

Course Name: : Engineering Graphics (II)				Dept.		IBPME
				Course Code		4231052
Instructors	Yi-Hung Chen	Credits	1	Compulsory /Elective	Grade	First grade
EMI	☒ Yes ☐ No					
Course type	☐ Humanistic Care Course ☐ Problem-oriented Course ☐ Integrate the curriculum ☐ Internship ☐ Competition Special Course ☒ Topic-based courses ☒ Practical courses ☐ Other					
Prerequisites: Class Description : This course introduces basic computer-aided drawing concepts, from simple 2D drawing to the presentation of complex 3D models, and then presents design concepts through computer drawing. Class Objective : The goal of this course is to enable students to represent engineering parts using computer-aided drawing software.						
Textbooks						
An overview of the main points of teaching						
Teaching Materials	☒ PPT ☐ Self-edited textbooks ☒ Self-made instructional videos ☒ Course handouts ☐ Teaching Procedures ☐ Other					
Teaching Methods	☒ Lectures ☐ Oral presentation ☐ Case studies ☐ Group discussion ☐ Problem-oriented learning ☐ Other					
Evaluation Tools	☒ Mid-term Exam ☐ In-class Quiz ☐ Homework ☐ Final Report ☐ Other ☒ Final Exam ☒ In-class homework ☐ Mid-term Report ☐ Special Report ☐ Scales					
Teaching Resources	☐ Course website ☒ Electronic files of textbooks are available for download ☐ Internship website					

Instructor's Information						
Course Outlines		Teaching Hours				Core Competence
Unit Title	Contents	Lectures	Demo	Practice	Other	
Introduction of Computer-Aided Design	Concept of CAD	1		2		<u>B4,B7,B9</u>
Solidworks	Introduction of the function and features of the Solidworks	15		30		<u>B4,B7,B9</u>
Achievable Core Competence		Achievable Objective				
B4	Ability to write programming languages and computer-aided design	possesses computer-aided design skills in engineering graphics.				
B7	Ability to implement and innovate	Capable of implementing SolidWorks				
B9	Ability to work as a team, communicate effectively and manage the program	Possesses basic teamwork skills to complete reports.				

Core competencies of the University Division

B1 Possess the ability of basic engineering mathematics, solid mechanics, heat flow mechanics, automatic control, materials science and opto-mechanical integration engineering practical analysis

B2 Ability to absorb and integrate cross-domain knowledge

B3 Ability to perform solid force experiments, heat flow experiments, mechanical project implementation, optoelectronic engineering experiments and analyze data

B4 Ability to write programming languages and computer-aided design

B5 Mechanical and opto-electromechanical systems, component design and process planning capabilities

B6 Ability to identify, analyse and solve professional problems

B7 Ability to implement and innovate

B8 Ability to engage in scientific writing and presentations

B9 Ability to work as a team, communicate effectively and manage the program

B10 Learn general knowledge and demonstrate the ability of engineering ethics, social responsibility and sustainable development

Weekly teaching plan				
Course Time	Course Location	Grading	Office hour	Teaching quality evaluation method
一 13:10~16:00	創新大樓 201	Homework 40% Mid-term Exam 30% Final Exam 30%		Questionnaire
Weeks	Teaching & Homework Progress			Note
1	Course Instruction and Basic Concept			
2	Sketch and Constrain			
3	Extrude			
4	Revolve Feature			
5	Reference Geometry			
6	Curve Line and Sweep Feature (1/2)			
7	Curve Line and Sweep Feature (2/2)			
8	Lofted Feature			
9	Midterm Exam			
10	Assambling Components			
11	Manufacturing Features			
12	Curve Surface Features			
13	Curve Surface Features			
14	Engineering Drawing			
15	Final Report			
16	Final Exam			