國立台灣科技大學 114學年 第2學期　課程大綱

Spring 2026 NTUST Course Outline

授課教師：林時旭

Instructor:Lin, Shih-Hsu

課程名稱：模型製作

Course Title：Model Making

2026/11/3

課程代號： DT1202301 Course Code 學分數： 2 Credits	必選修：必修/半學年 Required/Electve:Required/Half Yr. 先修課程： Prerequisites
節次教室： Time/Location	W6(T4-B1) W7(T4-B1) W8(T4-B1) W9(T4-B1)
專業核心能力： Core Professional Competencies	
課程網址： Course Website	
課程宗旨： Course Objectives	前階段介紹各種模型製作之材料、模型製作過程與技巧，使學生能依照三面圖把模型製作出來，以供設計之檢討或表達。後階段訓練從無到有的快速設計流程，從畫草圖繪製、篩選、三視圖、油土塑型、人因調整、代木加工製作、噴漆，完成精模。 The first stage introduces various materials, model making processes and techniques.Enable students to make models according to three-view engineering drawings for review or expression of the design.The later stage is training in the rapid design process from scratch, from sketching, screening, three-view drawing, clay modeling, ergonomic adjustment, wood processing and production, painting, to the completion of the fine model.
課程大綱： Outline of Lectures	

1 概論、課程說明、模型材料、工具介紹
2 作業1 封扣方盒教學、工廠安全衛生講習
3 作業2 鬧鐘教學、治具、檢具教學
4 作業3 EK相機機身教學、輕重電機具、噴漆(漆罐)教學
5 EK相機鏡頭教學、木工車床教學
6 作業4 ABS方盒、噴槍技法、補土技法(一) 、風乾箱教學
7 作業5 PU高鐵車頭草模教學
8 作業6 PU車頭補土技法(二)、噴漆(亮面+遮噴)教學
9 3D Print、鐳射切割、快速切割技術介紹
10 遙控器 idea發想教學、Sketch教學
11 Sketch提案篩選(一)
12 Sketch提案篩選(二)、油土教學
13 金工車床教學、代木教學、油土草模個別檢討(一)
14 銑床教學、油土草模個別檢討(二)
15 精緻模型製作(一)
16 精緻模型製作(二)
1 Introduction, course description, model materials, tool introduction
2 Assignment 1: Sealing square box teaching, factory safety and health lectures
3 Assignment 2 Alarm clock teaching, jig and inspection tool teaching
4 Assignment 3 EK camera body teaching, light and heavy electric tools, spray paint (paint can) teaching
5 EK camera lens teaching, woodworking lathe teaching
6 Assignment 4 ABS square box, spray gun technique, putty technique (I), air drying box teaching
7 Assignment 5 PU high-speed rail head model teaching
8 Assignment 6 PU car head filling technique (II), spray painting (bright surface + masking spray) teaching
9 Introduction to 3D Printing, Laser Cutting and Rapid Cutting Technology
10 Remote control idea tutorial, Sketch tutorial
11 Sketch proposal screening (I)
12 Sketch proposal screening (Part 2), oil-clay teaching
13 Metalworking lathe teaching, woodworking teaching, individual review of oil clay model (I)
14 Milling machine teaching, individual review of oil clay model (II)
15 Exquisite Model Making (I)
16 Exquisite Model Making (Part 2)

授課方式：
Method of Instruction

講授 Lecture：0%

分組討論 Group discussion：0%

案例研討 Case study：0%

操做練習 Practical exercises：0%

講授 Lecture：%

教科書：
Textbooks

參考書目：
References

修課須知：
Notice

評量方式：
Grading

備註說明：
Notes