

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

2026/5/6

<p>課程代號： DT1202301 Course Code 學分數： 2 Credits</p>	<p>必選修：必修/半學年 Required/Electve:Required/Half Yr. 先修課程： Prerequisites</p>
<p>節次教室： W6(T4-B1) W7(T4-B1) W8(T4-B1) W9(T4-B1) Time/Location</p>	
<p>專業核心能力： Core Professional Competencies</p>	
<p>課程網址： Course Website</p>	
<p>課程宗旨： Course Objectives</p> <p>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.</p>	
<p>課程大綱： Outline of Lectures</p>	

- 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： 講授 Lecture：0%  
Method of Instruction 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