

Measurement for Nano and Micro Device

奈微米元件量測實驗 (10020NEMS511000)

	Mon	Tue	Wed	Thu	Fri	Sat	Sun	
Feb	20	21	22	23	24	25	26	National Holiday
	27	28	29					Start of semester
Mar				1	2	3	4	End of semester
	5	6	7	8	9	10	11	
	12	13	14	15	16	17	18	Lo
	19	20	21	22	23	24	25	Cheng
	26	27	28	29	30	31		Lai
Apr							1	
	2	3	4	5	6	7	8	
	9	10	11	12	13	14	15	Yao
	16	17	18	19	20	21	22	Li
	23	24	25	26	27	28	29	
	30							
May		1	2	3	4	5	6	
	7	8	9	10	11	12	13	Fu
	14	15	16	17	18	19	20	Chen/Wang
	21	22	23	24	25	26	27	
	28	29	30	31				
Jun					1	2	3	
	4	5	6	7	8	9	10	
	11	12	13	14	15	16	17	Final Exam.
	18	19	20	21	22	23	24	
	25	26	27	28	29	30		

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1. The first class for course announcement starts 1000 on **Feb. 24 (Friday)**. Please **do attend**.
2. Please download the experimental manual on from NEMS Website (Link: mx.nthu.edu.tw/~chengyao).
3. General TA – Mr. Liao (廖冠勳, #80128, s9935804@m99.nthu.edu.tw)
Exp. TA – See following pages.
4. Grading: Eight experimental reports and class participation (70%) and final exam (30%).
5. Lectures for all four groups: F3F4 (10:10~12:00)
Experiment:
 - 1st group: MaMb (18:20~20:10)
 - 2nd group : T9Ta (17:20~19:10)
 - 3rd group: W9Wa (17:20~19:10)
 - 4th group: R9Ra (17:20~19:10)
6. **Final exam: Jun. 15, 1000-1200.**
7. The deadline for uploading homework: Follow lecture's instructions.

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教師 Lecture	實驗名稱 Experiment	實驗課程大綱 Syllabus	使用儀器項目 Training Tool	助教 TA
羅丞曜 C. Y. Lo	光學薄膜量測 Optical Thin Film Meas.	多層膜光學 Multilayer Optics 系統模擬 Simulation 實作 Practice	積分球儀 Integration sphere	K. Kashyap A. Kumar #62402 #62403
鄭兆珉 C. M. Cheng	生化反應量測 Anal. ELISA-based Detections	酵素免疫吸附測定法 Enzyme-Linked Immunosorbent Assay 量測方式 Meas. Approach 實作 Practice	掃描器 Scanner	羅士杰 Mr. Lo #80632
賴梅鳳 M. F. Lai	磁性元件之 磁光性質量測 Magnetic property measurement	磁性元件 Mag. Device 量測系統 Meas. Sys. 實作 Practice	磁光量測系統 Magnetic measurement system	許又仁 Mr. Hsu #33798

教師 Lecture	實驗名稱 Experiment	實驗課程大綱 Syllabus	使用儀器項目 Training Tool	助教 TA
饒達仁 D. J. Yao	表面溫度量測 Surface Temp. measurement	紅外線原理 IR theory LED量測 Meas. for LED 表面結構特性量測 Meas. for surface structure	熱像儀 Infrascop	申憲樺 Mr. Shen 羅士杰 Mr. Lo #80632
李昇憲 S. S. Li	機械共振器量測 Mechanical resonator Meas.	原理介紹 Introduction 機械共振器量測 Mech. res. meas. 頻率特性分析 Freq. char. analy.	真空系統 Vac. meas. sys. 網路分析儀 Network analy.	李承勳 #80631

教師
Lecture

實驗名稱
Experiment

實驗課程大綱
Syllabus

使用儀器項目
Training Tool

助教
TA

王玉麟
Y. L. Wang

半導體元件量測
Semi. dev. meas.

半導體量測介紹
Introduction
實作
Practice

半導體參數分析儀
Semiconductor
parameter
analyzer

許振彬
Mr. Hsu
#80159

陳致真
C. C. Chen

DNA量測
DNA meas.

微流道系統
Microfluidics sys.
電泳系統
Electrophoretic sys.

生化分析儀
Biomedical analy.

陳映竹
#80636

傅建中
C. C. Fu

微結構幾何形狀
量測實驗
Microstructure
geometry
measurement

電子顯微鏡原理
Intro. electron-
microscope
共軛焦顯微鏡
Confocal microscope

生化分析儀
Biomedical analy.

TBD