College of Engineering
Any questions, PLEASE CONTACT
TEL: 04-22840430#306 Ms. Carol Lu
engineer@dragon.nchu.edu.tw

Syllabus for The International Summer School 2019

(Please fill in the form. Thank you very much.)			
課程名稱 Course name_ at least in English, additionally in Chinese preferred	（中）： 先進微機電系統科技		
	（Eng）： Advanced MEMS technology		
授課老師所屬單位 Offering dept. and university	Waseda University, Research organization for Nano & Life innovation		
開課時段 Session	( ) Session 1 (July 3rd ~July 14th) ( ) Session 2 (July17th~ July 28th) (✓) Session 3 (July29th ~August 2nd) ( ) Session 4 (August 14st ~August 25th)	☑ 5 days /3 hours a day (6 hr for August 2nd) ☐ 3 days /6 hours a day	
開課日期 *Teaching Dates (18hours)	Dates : from July 29 to Aug. 2 2019	☑ Morning (9:00~12:00) ☐ Afternoon (14:00~17:00)	
課程開辦系所 Hosting Department	Graduate institute of precision engineering		
授課教師資料 Offering teacher's information	Name: Jun MIZUNO Tel. / mobile phone number: +81-80-2066-7960 Email: mizuno@waseda.jp Website: http://www.waseda.jp/sem-shoji-GIT/profile.html		
學經歷 Curriculum vitae	Education: Device science, PhD.		
	Professional appointment: Professor in Research Institute of Nano-technology, Research Organization for Nano & Life Innovation, 513 Tsurumaki-cho, Waseda, Shinjuku-ku, Tokyo 162-0041, Japan		
	Other qualification: Visiting Professor in Kyushu University		
學分數 Credit(s)	1	**授課對象 Target audience**	Postgraduate
課程目標 Goal of this course description within 150 words	To understand the content of each technology of MEMS. To understand the characteristics of the device fabricated by MEMS technology.		
課程簡述 Course description description within 350 words	To understand the following technologies of MEMS: (A) Classroom learning ① Cleaning ② Photo-lithography ③ Film formation / deposition ④ Etching ⑤ Bonding / Packaging ⑥ Measurement and evaluation / characterization ⑦ Examples of device application (B) Practical learning (Experiment) Fabricate the fine structures using nanoimprint and evaluate / characterize them		

College of Engineering
Any questions, PLEASE CONTACT
TEL: 04-22840430#306 Ms. Carol Lu
engineer@dragon.nchu.edu.tw

Syllabus for The International Summer School 2019

課程內容 / 授課大綱 **Course content / outline**	Classroom learning 1st day; Cleaning, Photo-lithography 2nd day; Film formation / deposition, Etching 3rd day; Bonding / packaging, Measurement and evaluation / characterization 4th day; Examples of device application Practical learning 5th day; (morning) Fabricate the fine structures using nanoimprint (afternoon) Fabricate, evaluate and characterize the students
學習評量方式 **Assessment / grading policy**	(1) Report: 50% (2) Examination: 50%
課程目標之教學方法 **Teaching methods for this course**	Power point presentation and blackboard.
教科書＆參考書目 **Textbook & other reference**	Electronics data prepare by Prof. Mizuno