2025 Spring

TIGP Sustainable Chemical Science and Technology Program			
Introduction to Sustainable Chemical Science and Technology			
	Period:	**2025/Feb. - 2025/June**	
	Classroom:	**B105, IoC, AS**	
	Time:	**AM9:10-12:00**	
Goals:	1. Know the backgrounds and chemistry of sustainability-related issues. 2. Learn the spirit of green chemistry and the challenges/opportunities in the real world. 3. Get exposed to important research directions.		
Theme			
4	**Energy Related Technologies**		
	4.1 Applied electrochemistry for energy related technologies (including electrode kinetics)	Ho, Kuo-Chuan	2025/2/19
	4.3 Energy Storage (Lithium ion battery, Flow battery) and Energy Saving Technologies (Photochromic, Electrochromic, Thermochromic)	Yen, Hung-Ju	2025/2/26
	4.2 Solar and thermoelectric energy conversion	Chen, Kuei-Hsien	2025/3/5
5	**Greener Materials**		
	5.1 Chemicals from Different Feedstocks		
	5.1.2 CO_2 and Natural Gas	Yu, Steve Sheng-Fa	2025/3/12
	5.1.2 Biomass	Aldous, Leigh	2025/3/19
	5.2 Degradable Polymers	Yu, Jia-Shing	2025/3/26
	***** Midterm report submission deadline *****	**No class**	**2025/4/2**
	5.3 From Waste to Wealth (CO_2; E-waste; food waste; plastic waste…)	Yu, Steve Sheng-Fa	2025/4/9
	5.4 Bio-Synthesis	Wang, Cheng-Chung	2025/4/16
	5.5 Green Hydrogen from Sunlight	Wu, Chi-Sheng	2025/4/23
	5.6 Modern theoretical computation applied to energy science	Wu, David Tai-Wei	2025/4/30
6	**Sustainable Health - Tackle Disease by Chemistry**		
	6.1 Drug Development	Li, Wen-Shan	2025/5/7
	6.2 Disease Detection and Diagnosis	Chen, Yu-Ju	2025/5/14
	6.3 Peptide and probe chemistry in Diseases	Huang, Joseph Jen-Tse	2025/5/21
	6.4 Emergent Therapeutics and Diagnostic Platforms	Tu, Hsiung-Lin	2025/5/28
	*****Final Report Submission Deadline*****	**No class**	**2025/6/4**