

TIGP Sustainable Chemical Science and Technology Program				
Introduction to Sustainable Chemical Science and Technology				
	Period:		2025/Sep. - 2025/Dec.	
	Classroom:		IoC, AS	
	Time:		AM09:10-12:00	
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		Lecturer	Date	Venue
1	Importance of Chemistry, Course Expectation, and Literature Search Skill	Hung, Chen-Hsiung	2025/09/03	A108 conference room
2	Chemistry Related Global Challenges			
	2.2 Climate Change and Our Future Alternative Energy	Hou, Cheng-Yi Ho, Tung-Yuan	2025/09/10	A108 conference room
	2.1 Global Materials Cycling (Carbon Cycle, Nitrogen Cycle, Ocean Acidification, Heavy Metals...)	Hung, Chen-Hsiung	2025/09/17	A108 conference room
	2.5 Catalysis for Control of Atmospheric Pollutants - An Introduction	Lin, Liang-Yi	2025/09/24	Ta-shue Chou Lecture Hall
	2.4 Environmental Impact of Chemicals (Organic Toxic Compounds, Persistent Compounds, Ozone Hole...)	Chou, Charles C.-K.	2025/10/01	A108 conference room
	2.3 Water Scarcity and Sustainable Water Supply - Principles and Chemistry	Chuang, Yi-Hsueh	2025/10/08	A108 conference room
3	Sustainability and Green Chemistry	Hung, Chen-Hsiung	2025/10/15 2025/10/22	A108 conference room
	3.1 Spirits			
	3.2 Principles			
	3.3 Metrics to Evaluate Greenness and Life Cycle Analysis			
	*** Midterm Report Submission Deadline***		2025/10/29	No class
	3.4 Alternative Reaction Energy Sources (Microwave, Mechano, Ultrasound,	Lin, Chih-Hsiu	2025/11/05	A108 conference room
	3.5 Solvents (water, supercritical fluids, ionic liquids, switchable solvents, bio-based solvents...)	Chein, Rong-Jie	2025/11/12	A108 conference room
	3.6 Catalysis (Heterogeneous, Homogeneous, Phase Transfer, Bio, Photo, and the more recent Organo, Earth Abundant Element...)	Chiang, Ming-Hsi	2025/11/19 2025/11/26	A108 conference room
	3.7 Basic Toxicology, Bioremediation, and Design Principles for	Li, Wen-Shan	2025/12/03	A108 conference room
	3.8 Some Real World Cases in Industry	Hung, Chen-Hsiung	2025/12/10	A108 conference room
	3.9 Challenges in Green Chemistry			
	*** Final Report Submission Deadline***		2025/12/17	No class