Course Outline
JEE667 Environmental Pollution Control Technology
Semester 2/2025
In Class and Online via MS Teams Classroom
Every Tuesday (Tuesday 20 January – 26 May 2026), 13.30-16.30 (Bangkok Time)

No.	Date	Topics	Details	Lecturers
1	**20 Jan 2026**	**Lecture 1:** Introduction and Discussion on the expected teaching and learning process	• Get started together! • Survey of student background and expected learning outcomes. • Introduction to Environmental Pollution Control Technology • Provision of Guidance for Module 1-Lectures' preparation	Dr. Savitri Garivait
		Module 1 (M1): Water Pollution and Its Control Technology		
2	**27 Jan 2026**	**M1-Lecture 1:** Pollution of the Aquatic Environment-Priority Pollutants and Their Control (Part 1: Oceanic and Marine Environment)	Review of water pollution by chemicals resulting from human activities and their control technology (Part 1: Oceanic and marine environment) through selected Presentations.	Dr. Savitri Garivait
3	**03 Feb 2026**	**M1-Lecture 2:** Pollution of the Aquatic Environment-Priority Pollutants and Their Control (Part 2: Inland Watershed)	Review of water pollution by chemicals resulting from human activities and their control technology (Part 2: Inland watershed) through selected Presentations.	Dr. Savitri Garivait
4	**10 Feb 2026**	**M1-Lecture 3:** Water Pollution from Wastewater (Industry and Households) and Their Control and Treatment Technologies	Review of wastewater (industry and households) and their control and treatment technologies through selected Presentations.	Dr. Savitri Garivait

No.	Date	Topics	Details	Lecturers
5	**17 Feb 2026**	**M1-Lecture 4:** Sewage, Sewage Sludge, and Industrial Sludge Treatment	• Review of management, treatment, and utilization of sewage, sewage sludge, and industrial sludge through selected Presentations. • Provision of Guidance for Module 2-Lectures preparation	Dr. Savitri Garivait
6	**24 Feb 2026**	**Evaluation of Module 1: Water Pollution and Its Control Technology ➔ *Presentation of M1-L1-4***		Dr. Savitri Garivait
		Module 2 (M2): Soil Pollution and Land Contamination, and Solid Waste Management and Treatment		
7	**10 Mar 2026**	**M2-Lecture 1:** Soil Pollution and Land Contamination	Review of soil pollution resulting from human activities, especially those related to energy use and production, through selected Presentations.	Dr. Savitri Garivait
8	**17 Mar 2026**	**M2-Lecture 2:** Soil Pollution and Land Contamination Remediation Technology	Review of soil pollution remediation technology: chemical and biological techniques, through selected Presentations.	Dr. Savitri Garivait
9	**24 Mar 2026**	**M2-Lecture 3:** Solid Waste Management and Treatment (Part 1)	Review of solid waste and MSW, their characteristics, and possible management and treatment, through selected Presentations.	Dr. Savitri Garivait
10	**31 Mar 2026**	**M2-Lecture 4:** Solid Waste Management and Treatment (Part 2)	Review of solid waste and MSW, their characteristics, and possible management and treatment, through selected Presentations.	Dr. Savitri Garivait
11	**07 April 2026**	**M2-Lecture 5:** Solid Waste Treatment and Waste to Energy	• Review of solid waste treatment and waste-to-energy technologies, especially Anaerobic Digestion, Incineration, and Mechanical and	Dr. Savitri Garivait

No.	Date	Topics	Details	Lecturers
			Biological Treatment, through selected Presentations. • **Submission of the Integrated Assignment.** • Provision of Guidance for Module 3-Lectures preparation. • Provision of Guidance for Module 4-Lectures preparation.	
12	**21 Apr 2026**	**Evaluation of Module 2: Soil Pollution and Land Contamination, and Solid Waste Management and Treatment ➔ *Presentation of M2-L1-5***		Dr. Savitri Garivait
		Module 3 (M3): Air Pollution Sources and Their Control Technology		
13	**28 Apr 2026**	**M3-Lecture 1:** • Emissions of Gases from Points/Stationary Sources and Their Control Technology • Emissions of Particulate Matter from Points/Stationary Sources and Their Control Technology	• Review of emitted gases and technologies to control gaseous emissions from stationary sources, especially Scrubber, Adsorber, Thermal Techniques, and FGD • Review of emitted particulate matter (PM) and technologies to control PM emissions at stationary sources, especially Cyclone, Fabric Filtration, and Electrostatic Precipitation	Dr. Savitri Garivait
14	**05 May 2026**	**M3-Lecture 2:** Emissions from Mobile Sources and Their Control Technology	• Review mobile source characteristics and their control technologies, especially catalytic converters, particulate filters, etc. • Provision of Guidelines for Module 4-Lectures' preparation.	Dr. Savitri Garivait
		Evaluation of Module 3: Air Pollution Sources and Their Control Technology ➔ *Presentation of M3-L1-2*		Dr. Savitri Garivait

No.	Date	Topics	Details	Lecturers
		Module 4 (M4): GHG Mitigation Technology		
16	**12 May 2026**	**M4-Lecture 1:** • Mitigation Technology of GHG (Part 1: CCS, CCUS, and CSS)	• General review of carbon capture and storage technology, carbon capture, usage, and storage, as well as carbon sequestration and storage technology, and their applications, through selected Presentations.	Dr. Savitri Garivait
17	**19 May 2026**	**M4-Lecture 2:** • Mitigation Technology of GHG (Part 2: CCS, CCUS, and CSS for Power Plant) • Mitigation Technology of GHG (Part 3: CCS, CCUS, and CSS for Cement Plant)	• Review of carbon capture and storage technology, carbon capture, usage, and storage, as well as carbon sequestration and storage technology for power plants, through selected Presentations. • Review of carbon capture and storage technology, carbon capture, usage, and storage, and carbon sequestration and storage technology for the cement plants, through selected Presentations.	Dr. Savitri Garivait
18	**26 May 2026**	**Evaluation of Module 3: Air Pollution Sources and Their Control Technology ➔ Submission of the Take-home Exam / Integrated Assignment** **Evaluation of Module 4: GHG Mitigation Technology ➔** ***Presentation of M4-L1-2*** **Evaluation of Overall Learning Outcomes ➔** ***Individual Presentation of the "Learning Outcomes Summary"***		Dr. Savitri Garivait