

# 2025-Fall ST: Data analysis for Environ. Biomass (EVSE680P-01) The course syllabus

## 1. Course Information

Course No.	EVSE680P	Section	01	Credit	3.00
Category	Major elective	Course Type		prerequisites	
Postechian Core Competence	<input type="checkbox"/> Interpersonal Relationship <input type="checkbox"/> Global Citizenship <input type="checkbox"/> Knowledge Research <input type="checkbox"/> Digital Literacy <input type="checkbox"/> Self Management <input type="checkbox"/> Creative Convergence				
Hours	MON, WED / 11:00 ~ 12:15 / Environ Bldg[208]Seminar Room			Grading Scale	G

## 2. Instructor Information

	Name	Hwang Seok Hwan	Department	Div. of Environmental Science & Eng.
	Email address	shwang@postech.ac.kr	Homepage	<a href="http://best.postech.ac.kr/">http://best.postech.ac.kr/</a>
	Office		Office Phone	054-279-2282
	Office Hours			

## 3. Course Objectives

This course consists of three separate subjects on biomass treatment, data analysis, and case studies. Specific textbooks, references, and other related materials will be notified at class times. This course has also been designed to introduce the student to the fundamentals of bio-gasification processes including applied biological concepts.

## 4. Prerequisites & require

- Introduction in environmental engineering
- Basics in microbiology and biochemistry
- Calculus, Linear Algebra, Statistics
- A basic understanding of statistics for experimental design and analysis is helpful.

## 5. Grading

Midterm Exam	Final Exam	Attendance	Assignment	Project	Presentation/Discussion	Laboratory/Practice	Quiz	Others	Total
비고		Exams: 50%, Project: 20% Presentation: 20%, Attendance: 10%							

## 6. Course Materials

Title	Author	Publisher	Publication Year/Edition	ISBN
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## 7. Course References

Lecture notes by Instructors  
Wastewater Engineering by G. Tchobanoglous and F.L.Burton, Bioremediation by K.H.Baker and D.S.Herson.

## 8. Course Plan

- Lecture topics and schedule 1) Overview of organic waste and valorization methods (1/4), 2) Data collection and preprocessing techniques (2/4), 3) Data analysis, visualization, and problem solution (3/4), 4) Case studies and presentation (4/4)  
- Exam/Report: 1) Technical writings (~1/2), 2) Final exam (~2/2)

## 9. Course Operation

## 10. How to Teach & Remark

Prof. Seokhwan Hwang (2282)

## 11. Supports for Students with a Disability

- Taking Course: interpreting services (for hearing impairment), Mobility and preferential seating assistances (for developmental disability), Note taking(for all kinds of disabilities) and etc.  
- Taking Exam: Extended exam period (for all kinds of disabilities, if needed), Magnified exam papers (for sight disability), and etc.  
- Please contact Center for Students with Disabilities (279-2434) for additional assistance