

Course title	<b>전기화학특론</b> <b>(Advanced Electrochemistry)</b>				
Course number	458.621	Lecture number	001	Credit	3
Instructor	<b>Lee, Kyu Tae</b>	E-mail/	<a href="mailto:ktlee@snu.ac.kr">ktlee@snu.ac.kr</a>	Phone	02-880-9386
Office	302-812		Office hours	by appointment through e-mail	
Course description	<p>1. Understand the <b>basic principle of electrochemistry</b></p> <p>2. Study various <b>electrochemical techniques</b></p>				
Materials and references	text	<b>Electrochemical methods, Fundamentals and Applications</b>			
	ref.	<ul style="list-style-type: none"> <li>- A.J. Bard &amp; L.R. Faulkner</li> <li>- JOHN WILEY &amp; SONS 2000</li> </ul>			
		<ul style="list-style-type: none"> <li>전기화학</li> <li>- 오승모</li> <li>- 자유아카데미 2014</li> </ul>			
Grading	Mid-term exam (45%), Final exam (45%), Attitude (10%)				

## Lecture Schedule

Week	Topic	Quiz, Exam
1	Ch. 1	
2	Ch. 1	
3	Ch. 1	
4	Ch. 2	
5	Ch. 2	
6	Ch. 2	
7	Ch. 3	
8	Ch. 3	<b>Mid-term</b>
9	Ch. 4	
10	Ch. 4	
11	Ch. 5	
12	Ch. 5	
13	Ch. 6	
14	Ch. 8	
15	Ch. 10	<b>Final</b>



## Thermodynamics

## Kinetics

## Methods

### Ch. 1

Overview of electrode reactions

### Ch. 2

Potential and thermodynamics of cells

### Ch. 3

Kinetics of electrode reactions  
(Mainly charge-transfer)

### Ch. 4

Mass transfer  
(Migration and diffusion)

### Ch. 5

Potential step methods

### Ch. 6

Potential sweep methods

### Ch. 8

Controlled-current techniques

### Ch. 10

Impedance