

강의교과목	학부(원주) ENE3020 - 01		
최초등록일	2014-08-11 14:34:48	최종수정일	2014-08-11 14:34:48
교과목명	반응공학	학 점	3
강 의 실	백 120(백 120)	강의시간	수 5,6, 목 5(목 6)

교 수 명	박동희	소 속	보건과학대학 환경공학부
연 구 실	백운관 407	연락처	
Email 및 면담시간	수/목 7교시		

수강대상	Junior/Senior Students
수업목표 및 개요	The objective of this course is leaning mathematical analysis on various chemical reactions and its application to reactor design. Thus this course covers reaction kinetics and reactor design for various chemical reaction systems, i.e., catalytic, non-catalytic, and biochemical reaction systems.
선수과목 (선수학습)	환경양론, 화공수학
강좌운영방식	- Lecture using PPT in English. - Homework & Quiz (every week)
성적평가방법	Mid-term Exam(30%), Final Exam(40%), Homework (10%), Quiz (10%), Attendance (10%)
교재 및 참고문헌	Chemical Reaction Engineering, 3rd Ed., John Wiley & Sons, 1998. (Octave Levenspiel)
교수정보	Prof. Park, Donghee Department of Environmental Engineering Research area: Bioenergy, Biological Wastewater Treatment
조교정보	서지혜(백 123 호, 010-5015-7533, jihae826@naver.com)
(영문) 수업계획서 Syllabus in English	The objective of this course is leaning mathematical analysis on various chemical reactions and its application to reactor design. Thus this course covers reaction kinetics and reactor design for various chemical reaction systems, i.e., catalytic, non-catalytic, and biochemical reaction systems.

주	기간	수업내용	교재범위 및 과제 등	비고
1	2014-09-01 - 2014-09-07	Lecture Introduction Overview of Reaction Engineering	Chap. 1	(9.1)개강 (9.3 ~ 9.5) 수강신청 확인 및 변경
2	2014-09-08 - 2014-09-14	Reaction Kinetics	Chap. 2	(9.7~9.10) 추석연휴
3	2014-09-15 - 2014-09-21	Reaction Kinetics Batch Reactor Design	Chap. 2 Chap. 3	
4	2014-09-22 - 2014-09-28	Batch Reactor Design Continuous Reactor Design	Chap. 3 Chap. 4	

주	기간	수업내용	교재범위 및 과제 등	비고
5	2014-09-29 - 2014-10-05	Simple Single Reaction	Chap. 5	(10.3) 개천절
6	2014-10-06 - 2014-10-12	Single Reactions	Chap. 6	(10.6~10.8) 수강철회 (10.8) 학기 1/3 선 (10.9) 한글날
7	2014-10-13 - 2014-10-19	Single Reactions	Chap. 6	(10.16 ~ 10.22) 중간 시험
8	2014-10-20 - 2014-10-26	Mid-term Exam.	Chap. 1~6	(10.16 ~ 10.22) 중간 시험
9	2014-10-27 - 2014-11-02	Parallel Reactions	Chap. 7	
10	2014-11-03 - 2014-11-09	Multiple Reactions	Chap. 8	
11	2014-11-10 - 2014-11-16	Heterogeneous Reactions Solid Catalyzed Reactions	Chap. 17 Chap. 18	(11.14) 학기 2/3 선
12	2014-11-17 - 2014-11-23	Fluid-Fluid Reactions Fluid-Particle Reactions	Chap. 23 Chap. 25	
13	2014-11-24 - 2014-11-30	Enzyme Fermentation Microbial Fermentation	Chap. 27 Chap. 28	
14	2014-12-01 - 2014-12-07	Substrate Limiting Microbial Fermentation Product Limiting Microbial Fermentation	Chap. 29 Chap. 30	
15	2014-12-08 - 2014-12-14	Summary		(12.8 ~ 12.20) 자율 학습 및 기말시험
16	2014-12-15 - 2014-12-21	Final Exam.	Chap. 7,8,27~30	(12.8 ~ 12.20) 자율 학습 및 기말시험