Advanced Research 2

CATHOLIC UNIVERSITY OF KOREA

Course Syllabus

2014학년도 제2학기

Course Title	Korean	심화연구2			
	English	Advanced Research 2			
Course Number-Division	03660-01	Course Completion Requirement	제1전공선택	Time/Credits	3/3
Day / Time	월10~11(N413), 수10(N413)	Course Target Audience	Fourth year student belonging to laboratory	Prerequisite Courses	
Professor	Full Name	Office	Phone Number	E-MAIL	
	박용일	D740	02-2164-4512	yongil382@catholic.ac.kr	
Web Site	http://ecyber.catholic.ac.kr/uSosWeb/indexClub.jsp	English Class	A형		

1.Course Outline

The course provides students an opportunity to practice the studied techniques. They will be guided by interacting with professor individually and then can learn the experimental design skills and the basic laboratory skills essential for beginning level researcher. Students will be asked to perform research project under adviser's guidance and will also learn theoretical knowledge and experimental methods from lecture time.

2. Objectives

The purpose of this course is to enhance the students' knowledge and experience for biotechnology and its application. The main objectives of this course are to provide students advanced practice in the biological engineering and systematic approach in the problem-solving, as well as to expose them to R&D techniques used in both academia as well as in industry. This course emphasizes the fusion of theoretical knowledge and basic laboratory skill.

3. Teaching Method

This course will use a combination of lecture, laboratory practice, individual presentation. The research project will be used to test the student's ability to correctly apply the research technique and to interpret and report experimental results. Students will be asked to give an oral presentation of the results of their research project.

4. Evaluation Method

Attendance (20%) Oral presentation (50%), Report (30%)

5. Assignments

Report for recent research trends and experiment results

6. Experiment, Practical Exercise

Students will be asked to set up individual research plan under adviser's guidance and should submit it to professor

7. Related Courses

All curriculum in the division of biotechnology

8. Textbook

Book Title	Publisher	Author	Year	Textbook or not
All textbook and research articles in biotechnology				참고도서

9. Detailed Weekly Activities

Week	Date	Lecture Content	Reference Material	Remarks
1	2014-09-01 ~ 2014-09-07	Introduction to advanced research 2		

Week	Date	Lecture Content	Reference Material	Remarks
2	2014-09-08 ~ 2014-09-14	Introduction to individual research project		
3	2014-09-15 ~ 2014-09-21	Discussion for individual research plan		
4	2014-09-22 ~ 2014-09-28	Various techniques useful for experiment		
5	2014-09-29 ~ 2014-10-05	Various techniques useful for experiment		
6	2014-10-06 ~ 2014-10-12	Various techniques useful for experiment		
7	2014-10-13 ~ 2014-10-19	Discussion for the progress of individual research project		
8	2014-10-20 ~ 2014-10-26	Mid-term		
9	2014-10-27 ~ 2014-11-02	Discussion for the progress of individual research project		
10	2014-11-03 ~ 2014-11-09	Discussion for the progress of individual research project		
11	2014-11-10 ~ 2014-11-16	Discussion for the progress of individual research project		
12	2014-11-17 ~ 2014-11-23	Discussion for the progress of individual research project		
13	2014-11-24 ~ 2014-11-30	How to prepare thesis?/How to prepare oral presentation?		
14	2014-12-01 ~ 2014-12-07	Methods to interpret results		
15	2014-12-08 ~ 2014-12-14	Review for individual presentation		
16	2014-12-15 ~ 2014-12-21	Final-term		