

# Syllabus

1st Semester ,2016

Subject Number	Advanced Genomics – A662				
Course Type/Course Number	10421		Professor	Jeong Kyo Yoon	
			Major	의생명융합학과(일반대학원)	
Credit/Hours	3				
Prerequisite			Contact	Phone Number	010-3921-6747
Teaching Methods (0)notation	Classroom			E-Mail	jkyoon@sch.ac.kr
	Campus virtual				

## 1. Course Description

This course will consider current topics in genomics in depth. Topics covered include genomic technologies and their applications, landscapes of mammalian genomes, the human microbiome, 3D organization of mammalian genomes, and the biomedical implications of genomics. The course consists of lectures by instructors and guest speakers, group discussions focused on current original research articles.

## 2. Course Purpose

1. to provide a basis on genomics
2. to make the students familiar with modern genomics techniques
3. to improve the students' capability to interpret research papers
4. to enhance students' presentation skill
5. to challenge students' thinking process through in-class discussion

## 3. Course Objective

This course will introduce an overview of modern genomics and current advances in genomics.

## 4. Course Features

Each class consists of the lecture and student-led group discussion or a workshop. Therefore, class attendance is required. Students will prepare a presentation to be given during class. Original research articles relevant to the topics of each class will be assigned ahead of the class

## 5. Course Style

Lecture ( 0 )	Lecture & Practice ( )	Practice ( )
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## 6. Assignments

Students have to read the assigned research article and engage in in-class discussion.

The student who is in charge of presentation each class should have a well-organized ppt file and be able to provide in-detail presentation on the assigned paper to the students.

## 7. Grades

Attendance	%	Quiz	%	Report	%	Discussion	%		
Test and Evaluation(1st~10th)		%		Etc	%	Total	100 %		
1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
%	%	%	%	%	%	%	%	%	%

## 8. Note

None

## 9. Expectation

Students will leave the course with an increased awareness of how genome-wide analyses help develop better diagnostics and therapies and a greater understanding of human health globally.

## 10. Required Text (Recommended Text)

None

**Prerequisite :** Advanced Genomics

**Professor :** Jeong Kyo Yoon

■ **Schedule (Weekly learn contents)**

Week	Title	Content	multi-media	Classroom
1	Overview	Lecture on overview of genomics		
2	Mouse genomics	Lecture on mouse genomics and presentation/discussion on high-throughput mouse phenotyping		
3	Human disease and genomics	Presentation/discussion on genomics research article on human sezary's syndrome		
4	Epigenetics and genome editing	Presentation/discussion on pan-genomic epigenetic regulation research and genome editing technology		