Module Code	19349011	Course Term
Course Subject Name	**Applied Cell Biology**	Autumn Semester
Course Tutor	**William KF TSE**	
Credit	2	Taught Day
Schools	School of Agriculture	THU-3
Taught Year	The 3rd year	
Campus	Ito campus	
Subject Area		
Course Subject Classification	Common Basic Subject	Thursday, 3rd period (13:00-14:30)
Course Requirements		
Course Requirement (Pre-requisite)		

Course Outline

Students learn 'Applied Cell Biology' through class lectures and problem-based learning (PBL).

key words

Study Objectives (General)

This course is designed to learn how to put the facts of cell biology to use—to reason, to predict and to control the behavior of living systems.

Study Objectives (Specific)

Specific Goals: We aim to achieve the knowledge on the following aspects:

A. Modern Recombinant DNA Technology

B. Tools to study protein

C. Cellular transport and protein sorting

D. Control of gene expression and Cell signaling pathways

E. Cell Cycle regualtion and Cancer

F. Stem Cell

Course Plan

Course Plan:

1–3: Recombinat Technology; restricted enzyme; DNA cloning in bacteria

3–4: How proteins are studied: Cell culture; protein purification techniques; Western blotting; production and discovery of proteins.

5–6: Regulation of metabolic pathways

7: Mid-term exam

8–11: Cell communication: Intracellualr compartments and protein transport; Cell signaling pathway

12–13: Cell Cylce and Cancer

14: Stem Cell

15: Final exam

Course Approaches	
Textbooks	Alberts, Bray, Hopkin, Johnson, Lewis, Raff, Roberts and Walter. Essential Cell Biology, Forth Edition
Reference Books	
Study consultation (office hour)	Office: Room 580, West Zone 5, Faculty of Agriculture.
	Office Hours:
	E-mail: kftse@agr.kyushu-u.ac.jp
	Phone:
Exams/Results Evaluation Method	1. Attendance, Presentation, PBL: 40%
	2. Mid-term exam: 20%
	3. Final exam: 40%
Others	