

2021 Modern biotechnology 現代生物技術

2021/8/4

Department/Institute: 分醫所 Institute of Molecular Medicine

Course System Number: T161800

No. of Credits: 1

Medium of Instruction: 英文 English

Classroom: R4214 at IMM (4F Conference Room)

Coordinator: Dr. Sunny Sun (hssun@mail.ncku.edu.tw, Room 4301, ext. 3648)

Course Description

Medical tests and biotechnology are science and technology that constantly change almost everyday. In addition to the updating of academic knowledge, the applied instruments or equipment are continuously renovated. Biomedical related technologies and instrument training are essential courses for training students for the medical testing, medical research and biotechnology professions. We will conduct “Course Introduction”, “Discussion” and “Evaluation” at designated time online. The lectures are pre-recorded in videos and will be reviewed by participants during the given course time offline.

Course Objectives

- To perform biomedical research by methodologies and technologies
- To perform biomedical research by practicing basic professional skills
- To learn basic knowledge in research and Laboratory

Teaching strategy and grading:

- Course lecture (80%), Discussion (20%)
- Grading by paper essays (60%) and participation (40%).

Course Website: <http://imm-med.ncku.edu.tw/p/412-1173-23234.php?Lang=zh-tw>

Applicable software : Moodle / Webex

Course Outline (18 hours)

Lecture	Date	Time	Progress Description	Location
1	9/7	8:00-9:00	Course Introduction (1 hour)	R4214
2	9/7	9:00-12:00	Next-generation sequencing—MiSEQ and NEXTSeq(3 hours)	R4214/Moodle
3	9/7	13:00-16:00	Pyrosequencing and its application(3 hours)	R4214/Moodle
4	9/8	8:00-9:00	Q & A (1 hour)	R4214
5	9/8	9:00-12:00	Introduction to microarray and its application in clinical health(3 hours)	R4214/Moodle
6	9/8	13:00-16:00	Imaging protein-protein interaction using BiFC and FRET(3 hours)	R4214/Moodle
7	9/9	8:00-9:00	Q & A (1 hour)	R4214
8	9/9	9:00-12:00	Final examination (3 hour)	R4214
		total	18 hours	