

108-1 現代生物技術 Modern Biotechnology

2019/6/28 修訂

Time: Summer Time 18 hours (July 15-July, 2019)

Credits: 1 (開課序號 Serial Number:029、課程系統碼 Course System Number:T161800)

Classroom : Monto Ho Auditorium, Uni-President Health Research Building(統一健康大樓 B1 何曼德講堂)

Coordinator : H. Sunny Sun 孫孝芳 (ext. 3648)(hssun@mail.ncku.edu.tw)

Course Objectives:

To perform biomedical research by providing an overview of relevant methodologies and technologies

To perform biomedical research by practicing basic professional skills

To learn basic knowledge in research and Laboratory

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. Students will also be exposed to current biotechnology and pharmaceutical developments or job opportunities in Taiwan and Asia. English is used in the classroom and in written reports.

Grading Criteria: Attendance, classroom participation & performance.(100%)

課程進度 Course Progress Outline

週次 Week	日期	進度說明 Progress Description	授課教師 Speaker
1	7/15	Next-generation sequencing—MiSEQ and NEXTSeq(1)	Thomas Young (Genetech)楊儒蔚(illumina)
2	9:00	Next-generation sequencing—MiSEQ and NEXTSeq(2)	Thomas Young (Genetech)楊儒蔚(illumina)
3	-12:00	Next-generation sequencing—MiSEQ and NEXTSeq(3)	Thomas Young (Genetech)楊儒蔚(illumina)
4	7/15	Pyrosequencing and its application(1)	Ryan Wu – QIAGEN (凱杰生物科技股份有限公司)
5	14:00	Pyrosequencing and its application(2)	Ryan Wu – QIAGEN (凱杰生物科技股份有限公司)
6	-17:00	Pyrosequencing and its application(3)	Ryan Wu – QIAGEN (凱杰生物科技股份有限公司)
7	7/17	Introduction to microarray and its application in clinical health(1)	Dr. Jia-Shing Chen 陳嘉興(華聯生物科技股份有限公司)
8	9:00	Introduction to microarray and its application in clinical health(2)	Dr. Jia-Shing Chen 陳嘉興(華聯生物科技股份有限公司)
9	-12:00	Introduction to microarray and its application in clinical health(3)	Dr. Jia-Shing Chen 陳嘉興(華聯生物科技股份有限公司)
10		Next-generation sequencing—Ion PGM and Proton(1)	Jim Chen (ThermoFisher) 陳俊銘(賽默飛世爾科技)
11	7/17 14:00	Next-generation sequencing—Ion PGM and Proton(2)	Jim Chen (ThermoFisher) 陳俊銘(賽默飛世爾科技)
12	-17:00	Next-generation sequencing—Ion PGM and Proton(3)	Jim Chen (ThermoFisher) 陳俊銘(賽默飛世爾科技)
13	7/19	Imaging protein-protein interaction using BiFC and FRET(1)	Professor CW Chiang 蔣輯武
14	14:00	Imaging protein-protein interaction using BiFC and FRET(2)	Professor CW Chiang 蔣輯武
15	-17:00	Imaging protein-protein interaction using BiFC and FRET(3)	Professor CW Chiang 蔣輯武
16	7/22	Immunofluorescence labeling and flow cytometry(1)	Professor LJ Hsu 徐麗君
17	9:00	Immunofluorescence labeling and flow cytometry(2)	Professor LJ Hsu 徐麗君
18	-12:00	Immunofluorescence labeling and flow cytometry(3)	Professor LJ Hsu 徐麗君

*The lecture will be rescheduled

方法	百分比%	閱讀、理解與運用專業知識	彙整新知與良好的溝通能力	生物醫學研究技術的應用與能力	解決研究問題的能力
出席與課堂參與: Attendance, classroom participation & performance	100	V	V	V	V