

國立清華大學 114 學年度第 2 學期課程大綱

科號 Course Number	LSMC546000	學分 Credit	1	人數限制 Class Size	0
中文名稱 Course Title	分子與細胞生物學新進展				
英文名稱 Course English Title	Frontiers in Molecular and Cellular Biology				
任課教師 Instructor	蕭尊先				
上課時間 Time	Fa	上課教室 Room	生二 LSII 213		

課程簡述(必填) (最多 500 個中文字) 本欄位資料會上傳教育部課程網

This course covers the principles of molecular and cellular biology, emphasizing their integration in understanding life processes. Topics include gene regulation, cell signaling, tissue development, molecular evolution, and biodiversity, as well as the molecular and cellular bases of immunity, tumorigenesis, infectious diseases, and host-microbe interactions. By connecting these disciplines, students will gain insights into how molecular mechanisms drive organismal function, adaptation, and disease, preparing them to address modern biological and biomedical questions from a systems-level perspective.

課程內容「中文暨英文關鍵字」(必填)

至少 5 個,每個關鍵字至多 20 個中文,以半形逗點分隔

Please fill in at least 5 course keywords (up to 40 letters for each keyword) and use commas to separate them.(required)

分子生物學、細胞生物學、演化生物學, 發育生物學, 分子與細胞免疫, 感染症疾病

Molecular biology, Cellular biology, Evolutionary biology, Developmental biology, Molecular and cellular immunology, Infectious diseases

課程大綱 (必填) Detailed Course Syllabus

● 課程說明 (Course Description)

The course aims to connect faculty members, postdoctoral researchers, graduate and undergraduate students from the Institute of Molecular and Cellular Biology. It features three-minute English oral presentations by students and postdoctoral fellows, and experts from the bioindustry and/or the English education field will be invited to deliver guest lectures. All participants are encouraged to share their research experiences and presentation feedback across laboratories, thereby fostering collaboration and improving presentation skills. The invited speakers are expected to share bioindustrial insights and/or tips for an English presentation with all participants.

● 指定用書 (Text Books)

N/A

● 參考書籍 (References)

Individual research reports

● 教學方式 (Teaching Method)

1. Students are required to participate in a 3-minute English oral competition to present their research on related topics. Faculty members and guest lecturers will provide their suggestions to help students improve their presentation skills.
2. Guest lectures
3. Field work

● 教學進度 (Syllabus)

Day 1 (14th Jan)

- 3-minute English oral competition (9:00~10:00)
- Feedback form judges and Guest lecture: Tips for English presentation (10:10~12:00)
- Networking across the laboratories of IMCB (12:10~14:10)
- Guest lecture in bioindustry and discussion (14:20~17:20)

Day 2 (15th Jan)

- Field work: Introduction to fern ecology in Taiwan (9:00~17:20)

● 成績考核(Evaluation)

Report, Attendance. The final evaluation will be announced in class.

Faculty members serve as judges to grade in the oral competition.

- 採用下列何項 AI 使用規則(Indicate which of the following options you use to manage student use of the AI)

有條件開放・請註明如何使用生成式 AI 於課程產出

Conditionally open; please specify how generative AI will be used in course output

可參考下列網頁範例 See the following web page for examples.

<https://curricul.site.nthu.edu.tw/p/404-1208-248357.php?Lang=zh-tw>

- 可連結之網頁位址 相關網頁(Personal Website)