Advanced Microbiology (微生物學特論); 2024 Spring

Affiliated Programs

- TIGP-MBAS (AS-NCHU): Elective Core Course; NCHU course code: 8024 (listed under "Special Topics in Microbiology").
- TIGP-BIODIV (AS-NTNU): Elective Course; NTNU course code: DID0003.
- TIGP-MCB (AS-NDMC): Elective Course; NDMC course code: 3024470.
- Plant Pathology and Microbiology (NTU): Elective Course; NTU course code: 633 U1480 PPM5082.

Course Information

- Coordinators
    - TIGP: Chih-Horng Kuo (郭志鴻); chk@gate.sinica.edu.tw; 02-2787-1127.
    - NTU: Li Chang (張立); lichang@ntu.edu.tw; 02-3366-4095.
- Assistant: Jennifer Wu (吳泓欣); mbastigp@gate.sinica.edu.tw; 02-2652-2928.
- Objectives: For students to understand the principles and potential applications of microbiology. The first part is organized by organisms and introduces the general biology of each group. The second part covers different fields of biology related to microbiology research. The third part consists of special topics, including those related to applied microbiology.
- This is a 3-credit graduate-level course conducted in English; includes a 2-hour lecture and a 1-hour discussion weekly.
    - Lecture: Tuesday 3-5PM; Room A236, Agricultural Biotechnology Building, Academia Sinica. May switch to online if required.
    - Discussion: arranged by instructors and students. Typically, after the lecture to explain the homework and answer questions. Additional office hours may be arranged to provide feedback on the assignment.
- Evaluation
    - Three homework assignments and one in-class oral presentation (25% each).
    - In the first week, each student selects three instructors for their assignments and one topic for oral presentation. The assignments are due one week after the selected lectures.
    - For homework assignment, each instructor will decide on the format. The typical format is a ~2-5 pages essay on the assigned topic/paper. Other examples include but not limited to: (1) a practice review on one paper/preprint, and (2) a proposal. Instructors should provide written or oral feedback to the students and email the scores to the coordinator within two weeks after the lecture.
    - Attendance is required but not scored. Students who missed three or more of the lectures will not receive the course credit, unless special permission from the course coordinator is granted.

Schedule

Week	Date	Topic	Instructor
1	2/20	Bacteria and archaea	Chih-Horng Kuo (郭志鴻) chk@gate.sinica.edu.tw
2	2/27	Viruses	I-Hsuan Wang (王宜萱) ihwang@ibms.sinica.edu.tw
3	3/05	Fungi	Hiran Anjana Ariyawansa (歐海仁) ariyawansa44@ntu.edu.tw
4	3/12	Oomycetes	Chih-Hang Wu (吳志航) wuchh@gate.sinica.edu.tw
5	3/19	Microalgae	Chuan Ku (顧銓) chuanku@gate.sinica.edu.tw
6	3/26	Evolution	Jun-Yi Leu (呂俊毅) jleu@gate.sinica.edu.tw
7	4/02	Physiology and metabolism	Yi-Lung Chen (陳宜龍) yilungchen@scu.edu.tw
8	4/09	Molecular genetics	Yen-Ping Hsueh (薛雁冰) pinghsueh@gate.sinica.edu.tw
9	4/16	Bioinformatics and metagenomics	Yu-Wei Wu (吳育瑋) yuwei.wu@tmu.edu.tw
10	4/23	Quantitative biology	Jian-Geng Chiou (邱澗庚) jchiou@gate.sinica.edu.tw
11	4/30	Microbe-plant interactions	Lay-Sun Ma (馬麗珊) laysunma@gate.sinica.edu.tw
12	5/07	Plant microbiota	Ka-Wai Ma (馬家威) kawaim7@gate.sinica.edu.tw
13	5/14	Symbiosis	Ko-Hsuan Chen (陳可萱) kohsuanchen@gate.sinica.edu.tw
14	5/21	Viral vectors	Li Chang (張立) lichang@ntu.edu.tw
15	5/28	Microbial therapeutics	See-Yeun Ting (陳詩允) syting@gate.sinica.edu.tw
16	6/04	In-class presentation	Chih-Horng Kuo (郭志鴻) chk@gate.sinica.edu.tw