

SCBM 233 Laboratory in Microbiology and Immunology

Academic Year 2/2025

Course coordinators: Ratchara Kalawong ratchara.kal@mahidol.ac.th

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Google classroom link: <https://classroom.google.com/c/ODM2NTU2Nzk5NjM2?cjc=ak2ifntq>

Schedule:

Date	Time	Topic	Instructor	Room
Fri 9 Jan	13:00-16:00	Lab 1: Biosafety & Proper Use of Lab Equipment	NS, RK, CN, JL, RS, PE	SC3-400
Fri 16 Jan	13:00-16:00	Lab 2: Bacterial Isolation and BactoArt	NS, RK, CN, JL, RS, PE	SC3-400
Fri 23 Jan	13:00-16:00	Lab 3: Gram Staining & Control of Bacterial Growth	NS, RK, CN, JL, RS, PE	SC3-304
Fri 30 Jan	13:00-16:00	Lab 4: Gene Transfer in Bacteria	NS, RK, CN, JL, RS, PE	SC3-400
Fri 6 Feb	13:00-16:00	Lab 5: Soil Fungi Isolation	AW, NK, CN, JL, RS, PE	SC3-304
Fri 13 Feb	13:00-16:00	Lab 6: Fungal morphology	AW, NK, CN, JL, RS, PE	SC3-400
Fri 20 Feb	13:00-16:00	Lab 7: Hidden hunters in the wood	TT, KT, SS, CN, JL, RS, PE	SC3-400
Fri 27 Feb	13:00-16:00	Lab 8: Helminths of Medical Importance	TT, KT, CN, JL, RS, PE	SC3-400
Fri 13 Mar	13:00-16:00	Lab 9: Zoonotic virus detection	ThTh, RA, AS, CN, JL, RS, PE	SC3-400
Fri 20 Mar	13:00-16:00	LAB 10: Clinical diagnosis of HBV by ELISA	ThTh, RA, AS, CN, JL, RS, PE	SC3-400

Instructors:

NS	Nattapong Sanguankiattichai	nattapong.san@mahidol.ac.th
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PE	Pitchapa Eamlaor	pitchapa.eam@mahidol.ac.th
KM	Kittiya Mahotorn	Teaching assistant
WP	Wanchalerm Pedpong	Teaching assistant
CM	Chavisa Maha-Amatayatibodee	Teaching assistant
PP	Pisuttinee Pongploypoen	Teaching assistant
PJ	Phatthrada Jitjenkarn	Teaching assistant
PN	Poonyapa Namlao	Teaching assistant
AT	Anantachai Thongmali	Teaching assistant

Course syllabus
SCBM 233 Laboratory in Microbiology and Immunology

1 credit (0-3-6)

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Course description: This course introduces fundamental laboratory techniques in microbiology with relevant real-life examples, covering the diversity of bacteria, fungi, protozoa, helminths and viruses. Students will gain hands-on experience in working with these organisms, including their handling, isolation, culture, detection and identification.

Course objectives:

Upon completion of this course, students will be able to:

1. Demonstrate biosafety awareness and adherence to good practices
2. Perform basic microbiology techniques
3. Explain basic microbiology techniques and related principles
4. Discuss results from basic microbiology techniques and experiments

Duration: 9th Jan 2026 – 20th Mar 2026, Every Friday 13:00 - 16:00

Recommended Reading: Cappuccino, James G., Welsh, Chad T., Microbiology: A Laboratory Manual, 11th edition, Pearson (2017).

Scoring:

- Lab report	60%
- Mini research paper	10%
- Quiz (pre- and post- session)	20%
- Attendance	10%

Grading:

A	> 80
B+	75-79
B	70-74

C+	65-69
C	60-64
D+	55-59
D	50-54
F	< 50

Student appeal:

Students may appeal following the rules and regulations of the Faculty of Science and Mahidol University.

Course policies:

- Participation is strongly encouraged. Please refrain from phone use (or other electronic devices) during class (unless used for studying or scientific-related search).
- Cheating, plagiarism, or copy-and-pasting from others will result in 0 point for the reports, quizzes and exams.
- Attendance below 80% will result in a 10-point deduction from the total marks.