

TIGP Bio 2023 Fall Syllabus
Basic Molecular Biology I (B1)

Latest syllabus: <https://idv.sinica.edu.tw/tigpbio/>

Place: Room 308, Institute of Statistical Science, Academia Sinica
Time: Tuesday 09:00-12:00
Chair: Dr. Ho-Ming Chen (homing@gate.sinica.edu.tw), Dr. Sen-Ling Tang (sltang@gate.sinica.edu.tw)
Aim: Understanding the key concepts in molecular and cell biology and their experimental underpinnings
Textbook: (Required)
 1. Molecular Cell Biology, 7th edition, by Harvey Lodish et al. Publisher: W. H. Freeman. International Edition (13 Aug, 2012). ISBN-13: 9781464109812.
 Local book store: <http://www.yihisient.com.tw/front/bin/ptdetail.phtml?Part=06585>
 Reference: (Recommended but not required)
 2. Molecular Biology of the Cell, 6th edition, 2014.
<http://www.yihisient.com.tw/front/bin/ptdetail.phtml?Part=06595&Rcg=53601>
 3. Molecular Biology: Principles of Genome Function, 2nd edition, 2014.
<http://www.yihisient.com.tw/front/bin/ptdetail.phtml?Part=06594&Rcg=52559>
 4. Biochemistry: A Short Course, 2nd edition, by Lubert Stryer et al. Publisher: W. H. Freeman (December 23, 2011). ISBN-10: 1429283602, ISBN-13: 978-1429283601.
TA: N/A (Please refer to the lectures respectively shall you have any questions for each class)
Grades: Midterm exam 50%. Final exam 50%.

【 For Non-BP student 】

For Non-BP student to register/sit-in any BP course, it is required to gain course chair's permission:
 (1) Basic Enrollment Information form <https://forms.gle/oK7vJzrx9EvybbT9>
 (2) TIGP-BP Course Registration Consent Form
https://idv.sinica.edu.tw/tigpbio/index/TIGP%20Bioinformatics_Class%20Registration%20Consent%20Form.docx
 ※ Deadline: **the 4th week** of each semester.
 ※ Signature of the course chair should be collected before submission. Incomplete form will not be accepted.
 ※ Course grade will NOT be given (even class enrollment is completed at school) if fail to follow the above procedures.

| Week | Date | Topics/Brief Description | Lecturers | Evaluation Method | Email |
|------|---|---|----------------------|--|--|
| 1 | 2023/9/5 @Webex Only | Molecules, Cells, and Evolution | Dr. Ueng-Cheng Yang | HW with a specified deadline: ▶ Nov. 7th | uyang@nycu.edu.tw |
| 2 | 2023/9/12 @Webex Only | Basic Molecular Genetic Mechanisms | Dr. Ueng-Cheng Yang | | uyang@nycu.edu.tw |
| 3 | 2023/9/19 @Webex Only | Molecular Genetic Techniques | Dr. Ueng-Cheng Yang | | uyang@nycu.edu.tw |
| 4 | 2023/9/26 | Genes, Genomics, and Chromosomes | Dr. Liang-Chuan Lai | HW with a specified deadline: ▶ Oct. 24th | llai@ntu.edu.tw |
| 5 | 2023/10/3 | Biomembrane Structure and Transport | Dr. Jung-Hsin Lin | HW with a specified deadline: ▶ Nov. 17th | jhlin@gate.sinica.edu.tw |
| 6 | 2023/10/10 | Holiday—Double Tenth Day (no class) | -- | -- | -- |
| 6 | 2023/10/11 (Wed) 09:00-12:00 | Post-Transcriptional Gene Control | Dr. Ho-Ming Chen | HW with a specified deadline: ▶ 23:00 Oct. 24th | homing@gate.sinica.edu.tw |
| 7 | 2023/10/17 | Review Week (no class) | -- | | |
| 8 | 2023/10/24 | Midterm Exam (take-home exams, no class) | -- | | |
| 9 | 2023/10/31 | Transcriptional Control of Gene Expression | Dr. Chuan Ku | HW with a specified deadline: ▶ Nov. 28th | chuanku@gate.sinica.edu.tw |
| 10 | 2023/11/7 | Protein Structure and Function | Dr. Lay-Sun Ma | HW with a specified deadline: ▶ Nov. 30th | laysunma@gate.sinica.edu.tw |
| 11 | 2023/11/14 @Webex Only | Cellular Energetics | Dr. Ueng-Cheng Yang | HW with a specified deadline: ▶ Dec. 12th | uyang@nycu.edu.tw |
| 12 | 2023/11/21 | Signal Transduction and G Protein–Coupled Receptors | Dr. Wailap Victor Ng | HW with a specified deadline: ▶ Dec. 22nd | wvng@nycu.edu.tw |
| 13 | 2023/11/28 | Signaling Pathways That Control Gene Expression | Dr. Wailap Victor Ng | | wvng@nycu.edu.tw |
| 14 | 2023/12/5 | The Eukaryotic Cell Cycle | Dr. Hsiao-Chun Huang | HW with a specified deadline: ▶ Dec. 19th | hsiaochun@ntu.edu.tw |
| 15 | 2023/12/12 | Review Week (no class) | -- | | |
| 16 | 2023/12/19 | Final Exam (take-home exams, no class) | -- | | |