

TIGP Bio 2022 Fall Syllabus
Basic Molecular Biology I (B1)

For the latest syllabus, please visit the BP website: <https://tigbp.iis.sinica.edu.tw>

Place: Room 107, New Building of the Institute of Information 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.yihscient.com.tw/front/bin/ptdetail.phtml?Part=06585>
 Reference: (Recommended but not required)
 2. Molecular Biology of the Cell, 6th edition, 2014.
<http://www.yihscient.com.tw/front/bin/ptdetail.phtml?Part=06595&Rcg=53601>
 3. Molecular Biology: Principles of Genome Function, 2nd edition, 2014.
<http://www.yihscient.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 (<http://bit.ly/3g22mfl>)
 (2) TIGP-BP Course Registration Consent Form (<http://bit.ly/3ubl2Bs>)
 ※ 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
1	2022/9/6 @Webex Only	Molecules, Cells, and Evolution	changed to Dr. Ueng-Cheng Yang (was Dr. Chuan-Hsiung Chang)	HW with a specified deadline: ► Oct. 25th
2	2022/9/13 @Webex Only	Basic Molecular Genetic Mechanisms	Dr. Ueng-Cheng Yang	
3	2022/9/20 @Webex Only	Molecular Genetic Techniques	Dr. Ueng-Cheng Yang	
4	2022/9/27 @Webex Only	Genes, Genomics, and Chromosomes	changed to Dr. Ueng-Cheng Yang (was Dr. Chuan-Hsiung Chang)	
5	2022/10/4	Biomembrane Structure and Transport	Dr. Jung-Hsin Lin	HW with a specified deadline: ► Nov. 11th
6	2022/10/11 @Webex Only	Protein Structure and Function	Dr. Jie-Rong Huang	HW with a specified deadline: ► Oct. 25th
7	2022/10/18	Review Week (no class)	--	
8	2022/10/25	Midterm Exam (take-home exams, no class)	--	
9	2022/11/1 @Webex Only	The Eukaryotic Cell Cycle	Dr. Hsiao-Chun Huang	HW with a specified deadline: ► Dec. 20th
10	2022/11/8	Transcriptional Control of Gene Expression	Dr. Chuan Ku	HW with a specified deadline: ► Nov. 28th
11	2022/11/15 @Webex Only	Cellular Energetics	Dr. Ueng-Cheng Yang	HW with a specified deadline: ► Dec. 20th
12	2022/11/22	Signal Transduction and G Protein–Coupled Receptors	Dr. Wailap Victor Ng	HW with a specified deadline: ► Dec. 29th
13	2022/12/5 (Mon) 9:00-12:00	Signaling Pathways That Control Gene Expression	Dr. Wailap Victor Ng	
14	2022/12/6	Post-Transcriptional Gene Control	Dr. Ho-Ming Chen	HW with a specified deadline: ► Dec. 20th
15	2022/12/13	Review Week (no class)	--	
16	2022/12/20	Final Exam (take-home exams, no class)	--	
17	2022/12/27	Cancer	Dr. Yuh-Shan Jou	no exam