

Course Introduction

- **BIO2101 is a laboratory course which provides hand-on training in current cell biological methods such as microscopy, animal cell culture, bacterial transformation, PCR, cell fractionation, SDS-PAGE and mouse anatomy.**
- 1. Microscopy
- 2. Cell Culture
- 3. Activation of the β -galactosidase gene in transformed E. coli
- 4. PCR
- 5. Cell fractionation
- 6. SDS-PAGE
- 7. Rat anatomy

Textbook

- The lab protocol or assigned material of each exercise will be delivered to you one week earlier. Please read carefully and finish the pre-lab exercise before you come to the lab.
- You don't need to purchase any textbooks.



- Course format:

Laboratory (RA407, MONday, 15:00 – 17:50 pm)

No Tutorials

- GRADING:

	PERCENTAGE
LABORATORY PERFORMANCE	20
LABORATORY REPORT	40
FINAL EXAM	40



Dates	L01 (Monday 15:00-17:50PM)
Sep 12	No class
Sep 19	Safety and pipetting
Sep 26	Microscopy
Oct 1-7	National Day Holiday
Oct 10	TBD
Oct 17	Activation of the b-galactosidase gene in transformed <i>E.coli</i>
Oct 24	Polymerase chain reaction (PCR) replication of b-galactosidase gene <i>LacZ</i> and gel electrophoresis verification
Oct 31 (Nov 1/3/5/6 follow-up sessions)	Cell culture
Nov 7	Protein assay
Nov 14	SDS-PAGE
Nov 21	Cell fractionation by differential centrifugation
Nov 28	Identification of mitochondrial fraction
Dec 5	Rat anatomy
Dec 12	TBD
Dec 19 (tentative)	Final exam

