

SCBE 212 Biochemistry Laboratory for Environmental Biologists

Course time: Wednesday 9:30 am - 12:30 pm MDL-4, K Building, Phayathai Campus

Jan	11	Orientation (lab safety) and Lab Briefing (part cloning)	Pagkapol, Phurt
	18	Serial dilution, Prepare buffers	Phurt, Thitinun
	25	Miniprep for vector	Phurt, Thitinun
Feb	1	PCR for insert. Spec for plasmid and digest vector	Phurt, Thitinun
	8	Gel electrophoresis check PCR product and vector	Phurt, Thitinun
	15	Ligation and bacterial transformation	Thitinun, Alisa
	22	Colony analysis, streak plate	Thitinun, Alisa
Mar	1	Report Discussion	Thitinun, Alisa
	7-10	Midterm Exam (no exam)	
	15	Laboratory Skill Practices (I)	Phurt, Thitinun, Alisa, Pagkapol
	22	(Culture from colonies before) induction of bacteria 3 hr to spin down. Cell lysis and protein extraction (sonicate vs no sonicate)	Surang, Tevan
	29	Protein quantification	Surang, Tevan
Apr	5 Morning	Gel casting	Surang, Tevan
	5 Afternoon	Sample prep and run gel, stain, and take picture	Surang, Tevan
	12	(Session moved to Apr 5 afternoon)	
	19	Discussion for Protein	Surang, Tevan
	26	Laboratory Skill Practices (II)	Tevan, Pagkapol, Alisa
May	1-12	Final Exam (no exam)	

Course Coordinators

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Lecturers

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Texts

- 1) Green, M.R. and Sambrook, J. 2012. Molecular Cloning: A Laboratory Manual. 4th ed. Cold Spring Harbor Laboratory Press. New York.
- 2) Class handouts

Assessment

Attendances	10%
Safety skills	10%
Laboratory reports (x2)	20%
Laboratory skill practices (x2)	40%
Assignments	20%