

Schedule for 2310555

GENE ENGINEER LAB (2 credits)

Second semester (2019)

Time: FR 09.00 - 12.00, 13.00 - 16.00

Room: LAB 504; LECT 503

Co-ordinator:

Topic	Hrs	Date	1st Instructor	2nd Instructor	
I.					
1.1 Orientation	1	Jan 10, 2020	Kanoktip		
1.2 Brief chromosomal and plasmid DNA extractions	2		Kanoktip		
1.3 Reagent preparation	3		Kanoktip		
1.4 Plasmid and chromosomal DNA extraction	2	Jan 24, 2020	Kanoktip		
1.5 Brief PCR and cloning	1		Kanoktip		Tanakarn
1.6 PCR	3		Kanoktip		Tanakarn
1.7 Agarose gel electrophoresis of PCR product, plasmid and chromosomal DNA	3	Jan 31, 2020	Kanoktip		Tanakarn
1.8 Discussion	3		Kanoktip		Tanakarn
II.					
2.1 Brief restriction enzyme digestion and ligation	1	Feb 7, 2020	Kanoktip		
2.2 Restriction enzyme digestion	2		Kanoktip		Supaart
2.3 Ligation	3		Kanoktip		Supaart
2.4 Brief transformation	2	Feb 14, 2020	Kanoktip		
2.5 Transformation	2		Kanoktip		Supaart
2.6 Brief clone identification	2		Kanoktip		
2.7 Plasmid extraction	2	Feb 21, 2020	Kanoktip		Supaart
2.8 Restriction analysis and colony PCR	3		Kanoktip		Supaart
2.9 Agarose gel electrophoresis and Discussion	6	Feb 28, 2020	Kanoktip		Supaart
<b>Mid-term examination:</b>					
III.					
3.1 Brief site-directed mutagenesis	1	Mar 13, 2020	Supaart		
3.2 Site-directed mutagenesis and error-prone PCR	5		Supaart		Manchumas
3.3 Transformation of site-directed mutagenesis	1	Mar 20, 2020	Supaart		Manchumas
3.4 Gel electrophoresis, gel extraction, ligation, and transformation of error-prone PCR reaction	5		Supaart		Manchumas
3.5 Analysis of mutagenesis results	6	Mar 27, 2020	Supaart		Manchumas
3.6 Discussion	3	Apr 3, 2020 (09.00-12.00)	Supaart		Manchumas
IV.					
4.1 Brief RNA extraction	1	Apr 3, 2020	Tanakarn		
4.2 Preparation of chemicals & glassware, induction of expression and cell collection	2		Tanakarn		Supaart
4.3 RNA extraction, SDS-PAGE of whole cells	3	Apr 10, 2020	Tanakarn		Supaart

4.4 Quantitative and qualitative determination- agarose gel electrophoresis, Brief gene expression	3		Tanakarn		Supaart
4.5 DNase treatment of total RNA	3	Apr 17, 2020	Anchalee		Supaart
4.6 Reverse transcription	3		Anchalee		Supaart
4.7 PCR	2	Apr 24, 2020	Anchalee		Supaart
4.8 Agarose gel electrophoresis	3		Anchalee		Supaart
4.9 Discussion	3	May 1, 2020	Anchalee		Supaart
Final examination:					

