

Schedule for 2310555				
<b>onsite</b>		GENE ENGINEER LAB (2 credits)		
<b>ห้องแล็บ 603</b>		Second semester (2020)		
Time: FR 09.00 - 12.00, 13.00 - 16.00				
Room: LAB 603; LECT 603		Co-ordinator: Tanakarn (tanakarn.m@chula.ac.th)		
Online platform	1	Microsoft teams: 2310555 GENE ENG LAB - class 2022.Group, Team code: 8a840ks		
	2	Blackboard ID:		
	3	LINE group:		
Topic	Hrs	Date	1st Instructor	รูปแบบการเรียนการสอน
<b>I. DAN extraction and PCR</b>				
1.1 Orientation	6	14-ม.ค.-21 Class Start 13.00-16.00 ตอนเช้าไม่มีเรียน no class on morning	Tanakarn	online
1.2 Plasmid and chromosomal DNA extraction	6	Jan-21: 10.00-12.00	Tanakarn	online
1.3 Agarose gel and UV spectrophotometry				
1.4. PCR and agarose gel electrophoresis of PCR prod	6	Jan-28: 10.00-12.00	Tanakarn	online
<b>II. DNA cloning</b>				
2.1 Brief restriction enzyme digestion and ligation	1	Feb-4, 11, 18, 25	Pawinee	
2.2 Restriction enzyme digestion	2			
2.3 Ligation	3			
2.4 Brief transformation	2		Pawinee	
2.5 Transformation	2			
2.6 Brief clone identification	1			
2.7 Plasmid extraction	2			
2.8 Restriction analysis and colony PCR	2		Pawinee	
2.9 Agarose gel electrophoresis	1			
2.10 Discussion	1			
<b>Mid-term examination 7 - 11 Mar 2022: 11 Mar 2565 (13:00-16:00)</b>				
<b>III. Site-directed mutagenesis</b>				
3.1 Brief site-directed mutagenesis	1	Mar-18, 25, April-1	Kittikun	
3.2 Site-directed mutagenesis and error-prone PCR	5			
3.3 Transformation of site-directed mutagenesis	1		Kittikun	
3.4 Gel electrophoresis, gel extraction, ligation, and t	5			
3.5 Analysis of mutagenesis results	6			
3.6 Discussion	3			
<b>IV. RNA extraction and RT-PCR</b>				
4.1 Brief RNA extraction	1	Apr-08	Tanakarn	
4.2 Preparation of chemicals & glassware, induction e	2			
4.3 RNA extraction	3		Tanakarn	
4.4 Quantitative and quanlitative determination of RN	3			
4.4 Brief Dnase treatment and RT-PCR	1	Apr-22	Anchalee	
4.5 DNase treatment of total RNA	3			
4.6 Reverse transcription	2			
4.7 PCR	3	Apr-29	Anchalee	
4.8 Agarose gel electrophoresis	3			
4.9 Discussion	3			Anchalee, Tanakarn
<b>Final examination 9 - 24 May 2022: 18 May 2565 (8:30-11:30)</b>				