

Schedule for 2310506
 BIOINFORMATICS I (3 credits)
 First semester (2020)

Time: TH , FR 14.00 - 16.00

* = online

Room: COM2, 5th Floor, MHVH

Co-ordinator: Teerapong

Topic	Lect	Prac	Date	Instructor
1. Introduction to Bioinformatics	1	1	13-Aug	Teerapong
2. Databases				
2.1 Data banks of biological information	2	2	14*, 20 Aug	Thanyada
2.2 Retrieval of information and data mining	1	1	21 Aug*	Thanyada
2.3 Submitting sequences to the databases	1	1	27-Aug	Thanyada
3. Sequence analysis I				
3.1 Sequence alignment	2	2	28 Aug*, 3 Sep	Teerapong
3.2 Databases searching	1	1	4 Sep*	Teerapong
3.3 Phylogenetic analysis	1	1	10-Sep	Anchittha
4. Sequence analysis II				
4.1 Identification of gene structures	2	2	11*, 17 Sep	Rath
4.2 Protein sequence analysis	2	2	18*, 24 Sep	Surasak
5. Structure analysis				
5.1 Molecular modeling	1	1	25 Sep*	Thanyada
Mid-term examination:				
5. Structure analysis				
5.1 Molecular modeling	1	1	2-Oct	Thanyada
5.2 Prediction of protein tertiary structure by homology modeling	2	2	15*, 16 Oct	Thanyada
5.3 Computer simulation	4	4	22*, 29, 30* Oct, 5 Nov	Thanyada
5.4 Protein design	3	3	6, 12*, 13 Nov	Surasak
6. Gene expression and genome analysis (High-throughput data analysis)				
6.1 Genome sequencing and annotation	2	2	19*, 20 Nov	Teerapong
6.2 Analysis of high throughput expression data	2	2	26*, 27 Nov	Teerapong
Final examination:				

