

**Schedule for 2310610**

**CELLULAR BIOCHEMISTRY (2 credits)**

**First semester (2022)**

**Time : July 18 - Aug 5 : MON - FRI 9.00 - 11.00 (2 h) or** **Coordinator: Supaart**

**Room: 519**

Topic	Hrs.	Date	Instructor
1. Biochemical Basis of the Cell • Introduction to biochemical concepts • Biochemical evolution • The chemical components of a cell: Building blocks of life	3	July 18, 19, 20, 21	Supaart
2. Macromolecules • Carbohydrate • Lipids • Nucleic acids • Protein and Enzymes (+Function) • Exploring proteins and proteomics	6		Supaart

**Examination 1: Aug 1, 2022 (8.30-10.00)**

3. Basic Genetic Mechanisms • Genes and genomes • DNA replication, repair, and recombination • From DNA to protein • Exploring genes and genomics	9	July 22, 25, 26, 27	Vorrapon
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**Examination 2: Aug 1, 2022 (10.10-11.40)**

4. Energy and Metabolism • Basic concepts: bioenergetics and design of metabolism • Glycolysis and gluconeogenesis • The citric acid cycle • The mitochondrion: oxidative phosphorylation • Lipid metabolism • Metabolism of N-containing compounds	10	Aug 2, 3, 4, 5	Pattana
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**Examination 3: Aug 19, 2022 (8.30 - 10.30)**