

Schedule for 2310522

CARBOHYDRATE BIOTECHNOLOGY (2 credits)

First semester (2023)

Time: TH, FR 13.00 - 14.00

Co-ordinator: Kittikhun

Room: 519 SCI10

Topic	Hrs.	Date	Instructor
1. Review on Carbohydrates 2. Introduction to Carbohydrate Biotechnology : From Agricultural Products to Carbohydrates of Industrial and Medicinal Importance	2	10, 11 Aug	Kittikhun
3. Enzymatic Production of Carbohydrates and Glycosides : Glycosyl Hydrolases and Glycosyl Transferases	2	17, 18 Aug	Kittikhun
4. Carbohydrate Characterization & Analysis	4	24, 25, 31 Aug, 1 Sep	Manchumas
5. Functional Carbohydrates : Structure, production, properties, and applications (Starch; Oligosac: MOS, IMO, Gento-OS, Cyclodextrins; Disac: Trehalose, Maltose, Maltitol, Nigeroze; Monosac: Glucose, Fructose) 5.1 Starch and Related Saccharides 5.2 Fructose Related Saccharides (FOS,Glycosylsucrose, Palatinose, GOS, Lactosucrose)	5	7, 8, 14, 15, 21 Sep	Karan
Mid-term examination: สอบ 25 - 29 Sep 2023; วันที่ 28 ก.ย. 2566 เวลา 13:00-15:00 น.			
5.3 Chitin-Chitosan and Other Low-digestible Saccharides (XOS, Manno-OS)	4	12, 19, 20, 26 Oct	Rath
6. Glycobiology and Glycoconjugates Concepts of Glycobiology - Glycosylation and Disease - Glycoconjugates and recognition	6	27 Oct, 2, 3, 9, 10, 16 Nov	Kittikhun

7. Future Prospects: Carbohydrate Drug Design & Carbohydrate based Vaccines : Glycomics and Glycobiology : Functional Carbohydrates	3	17, 23, 24 Nov	Manchumas
Final-term examination: สอบ 27 Nov- 12 Dec 2023; วันที่ 27 พ.ย. 2566 เวลา 13:00-15:00 น.			