

Course Syllabus

Drug Discovery and Development (0403503)

Course Description:

Introduction to drug discovery and development, drugs from natural and synthetic sources, small-molecule drug discovery and development, new technologies used in process scale, case studies in discovery and development of some current drugs in the market.

Grading:

PART I: Midterm examination (L1-L3)	50%
PART II: Final examination (L8-L12)	40%
PART III: Assignment	10%

*If the total score is equal to or higher than 60.00%, the letter grade of either A, B+ or B will be assigned. If the total score is LOWER than 60.00%, the letter grade of either C+, C, D+, D or F will be assigned.

Course Director: Jaruwan Chatwichien, Ph.D.

Room: Seminar room 3, Floor 7th, CGI

Time: Wednesday and Friday (9:00-12:00)

Date	Topic	Lecturer
June 4, 2021 9:00 – 12:00	L1: Introduction to drug discovery and development	CE
June 8, 2021 9:00 – 12:00	L2: Synthetic drugs I	RS
June 11, 2021 9:00 – 12:00	L3: Synthetic drugs II	WN
June 16, 2021 9:00 – 12:00	L4: Process chemistry L5: Flow chemistry	CT SS
June 18, 2021 9:00 – 12:00	L6: Case study I L7: Case study II	RS WN
June 23, 2021 9:00 – 12:00	Midterm examination (L1 – L3)	Staff
June 25, 2021 9:00 – 12:00	L8: Cell-based assays for drug screening	JC

June 30, 2021 9:00 – 12:00	L9: Bioorthogonal chemistry in drug discovery	JC
July 2, 2021 9:00 – 12:00	L10: Directing evolution: the next revolution in drug discovery	JC
July 7, 2021 9:00 – 12:00	L11: Student presentation and discussion	JC
July 9, 2021 9:00 – 12:00	L12: Mass spectrometry: Analytical Tool in Drug Discovery	WJ
July 16, 2021 9:00 – 12:00	Final examination (L8-L12)	Staff

Lecturers:

Chatchakorn Eurtivong, Ph.D. (CE)

Rungroj Saruengkhanphasit, Ph.D. (RS)

Worawat Niwetmarin, Ph.D. (WN)

Satapanawat Sittihan, Ph.D. (SS)

Charnsak Thongsornkleeb, Ph.D. (CT)

Jaruwan Chatwichien, Ph.D. (JC)

Watthanachai Jumpathong, Ph.D. (WJ)