

PCL102H THE ART OF DRUG DISCOVERY Spring Term 2016

Lectures: MacLeod Auditorium MSB 2158

Course material: **Tuesdays and Thursdays 12-1, Fridays 4-5**

Lecturer: Dr. Rebecca Laposa

office hours by appointment Fri 3-4 pm Medical Sciences Building, Rm 4213

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Please address course content-related questions to the Blackboard Discussion board, rather than emailing Dr. Laposa directly. This will help answer your question in the most timely manner.

	DATE	DAY	#	TOPIC
Jan	12	(T)	1	Introduction and Logistics
	14	(Th)	2	History of Drug Discovery and Ethnobotany
	15	(F)	3	Optional Review Lecture: Central Dogma of Molecular and Cell Biology
	19	(T)	4	Drug Discovery – Pipeline overview and Mechanisms of Disease I
	21	(Th)	5	Drug Discovery – Mechanisms of Disease II
	22	(F)	6	Genomes and Genomics
	26	(T)	7	Drug Discovery – Genomic Technologies
	28	(Th)	8	Drug Discovery – Biomarkers and personalized medicine
	29	(F)	9	Microarrays to understand disease and test drugs
Feb	2	(T)	10	Drug Targets – Choosing a Target, the druggable genome
	4	(Th)	11	Drug Targets – Validating a Target
	5	(F)	12	Review session to prepare for term test one (<i>optional</i>)
Feb	9	(T)	13	Chemical structures of drugs – history of drug synthesis
	11	(Th)		TERM TEST ONE
	12	(F)	14	Chemical terminology and functional groups
	16	(T)		Reading week
	18	(Th)		Reading week
	19	(F)		Reading week
	23	(T)	15	Modern synthetic chemistry – creating chemical libraries
	25	(Th)	16	High throughput screening: when chemicals meet cells and proteins
	26	(F)	17	Review of term test one (<i>optional</i>)
Mar	1	(T)	18	Modern chemistry – chemical and clinical probes
	3	(Th)	19	Protein structure and structure-based drug design
	4	(F)	20	Drug safety – Toxicology
	8	(T)	21	Drug efficacy: Clinical trials
	10	(Th)	22	Clinical trials in global health and special populations (Meghan Chenoweth)
	11	(F)	23	Review session for term test two (<i>optional</i>)
	15	(T)	24	Adaptive clinical trial design
	17	(Th)		TERM TEST TWO
	18	(F)		No class or office hours today
	22	(T)	25	Advanced issues in Clinical Research
	24	(Th)	26	Specialty Drugs: Biology, Mechanisms and Pharmacoeconomics (Dr. Ferguson)
Apr	25	(F)	27	University closed
	29	(T)	28	Drug Approvals and the Food and Drug Administration
	31	(Th)	29	Ethical Aspects of clinical research
	1	(F)	30	Review of term test two (<i>optional</i>)
	5	(T)	31	Business models and the future of drug discovery and development
	7	(Th)	32	Review session for final exam (<i>optional</i>)
	8	(F)		No class, extra office hours

Marking scheme: PCL102H

Term Test One:	25%
Term Test Two:	35%
Final exam:	40%

Term Test locations:

Term Test One (Feb 11) Exam Centre, 255 McCaul Street
Term Test Two (Mar 17) Exam Centre, 255 McCaul Street

Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability or health consideration that may require accommodations, please feel free to approach me and/or the Accessibility Services Office (<http://www.accessibility.utoronto.ca/>) as soon as possible. The Accessibility Services staff are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations. The sooner you let them and me know your needs, the quicker we can assist you in achieving your learning goals in this course.

Policy on make-up tests:

For the Feb 11 term test, the make-up test is Friday Feb 26, 4-5 pm at a location to be determined. For the Mar 17 term test, the make-up test is Friday April 1, 4-5 pm at a location to be determined. Prior to each make-up test, you must provide a signed University of Toronto medical form or other form from your College Registrar indicating the reason for your non-medical absence. The form must be handed in to our Departmental Secretary, Ms. Phyllis Thawe (Rm 4207 MSB) as soon as possible after the term test itself. Please make sure it includes your name, student number, and indicates the course name and code. Please do not hand the notes in to myself at class time, as these documents need to be date stamped by our Departmental office. If the documentation is determined to be valid, you will be allowed to write the make-up term test and you will be contacted by email. There is only one make-up term test for each of the two term tests. For those individuals who miss both the term test and its make-up, situations will be dealt with individually.