

BIOCHEMISTRY 4H03 DRUG DISCOVERY and Biotechnology

Summary

The course will focus on the fundamentals, paradigms and processes of modern day pharmaceutical discovery research. The overriding goal of the course is to revisit the fundamentals of biochemistry in context of real and practical problems of biomedical research and modern drug discovery. A keen focus is placed on entrepreneurship and the key discoveries that have provided a future for biomedical discovery. Included will be topics pertaining to company creations, venture capital, biotech and start-up mentalities and process. The course focuses on problem-based learning and learning through the eyes of translating biomedical discoveries.

Content will be in 2 parts, lecture format and group inquiry:

(i) Lectures in the history and technology range in drug discovery.

An introduction of the principles and paradigms of modern drug discovery (16 lectures).

(ii) Group inquiry of a therapeutic area and proposal for an R&D strategy.

Principles highlighted in the lecture component will be reinforced by group study of an assigned therapeutic area. The outcome of this work will be a group proposal for the discovery of a new chemical entity for an assigned therapeutic area. Here the students will hone skills in group inquiry, attend tutorial sessions with the instructors to develop their ideas and present their proposals as both a written report and in seminar format.

Evaluation	Due Date	Weight
Test 1 (individual mark)		30 %
Project progress report (individual mark)		5%
Project progress report (group mark)		10%
Tutorial evaluation (individual mark)		10%
Presentations/final report (group mark)		25%
Commentary evaluation (individual mark)		10%
Test 2 (individual mark)		10%

Notes: Group evaluations will be taken into account when evaluating group work components. The course facilitators reserve the right to adjust marks accordingly. By attending this class, you are agreeing to this method of grade disclosure. Any student who infringes the University's Statement on Academic Ethics and the Senate Resolutions on Academic Dishonesty as detailed in the Senate Policy Statements will be treated as prescribed.

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