

Program: Biochemistry

Course Name: Introduction to Research Methodologies

Course Number: 508,509,510,511

Course Director: Parkson Lee-Gau Chong, Ph.D. Room 600 OMS. Tel. 2-4182
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Credits: 1 for each rotation, up to 4

Semester: Spring, Fall, Summer, every year

Times: TBA

Location: variable biochemistry laboratories

Prerequisites: having been admitted to the Biochemistry graduate program

Description: During the first year in the Graduate Program, each Ph.D. graduate student is required to complete 4 credits of “Introduction to Research Methodology” Biochemistry M508, 509, 510 and 511 before joining a permanent laboratory. Each credit will consist of one laboratory rotation in a different faculty member’s laboratory. Students may petition their Research Advisory Committee to stop after three rotations if they have identified a permanent laboratory.

Laboratory rotations are designed to achieve two objectives: first, to introduce the student to a variety of approaches, techniques, and instrumentation used in biochemical research; second, to familiarize the student with the types of research in progress in the laboratories of the members of the Department of Biochemistry in order to provide a better basis for selecting the faculty member who will serve as the student’s sponsor for dissertation research.

The student’s selection of a rotation laboratory requires approval from the course director of “Introduction to Research Methodology” and the professor who will sponsor the laboratory rotation. The professor of the selected lab will design the experimental or theoretical work for students in such a way that in the given time frame the students will be able to experience some basic techniques and approaches used in his/her research projects. For M.S. graduate students, taking laboratory rotations is not required.

Students are expected to work in the rotation laboratory full time, except for meeting the requirements of other courses in which they are enrolled and attending seminars. Students should submit a rotation research report to the professor of the laboratory and the course director by the designated deadline.

Textbook & Readings: as instructed by the professor of the laboratory.

Grading -- The professor of the rotation lab will assign the student a letter grade. Students should discuss with the laboratory professor the specific expectations for the laboratory rotation. In general three areas will be emphasized with approximately equal weight. These are:

(1) Effort and Productivity—attendance, attitude, lab behavior and research accomplishments.

(2) Laboratory Skills and Understanding—bench organization, communications with others in the lab and demonstration of a general understanding of the project.

Written Report—the text of the written report, including Title, Introduction, Materials and Methods, Results and Discussion, is limited to no more than 12 double-spaced pages, excluding references, figures, and tables.