

INTEGRATED BIOMEDICAL GRADUATE STUDIES (IBGS)

Courses

IBGS 501. Biomedical Communication and Integrity. 2 Units.

Improves students' scientific communication skills, as well as increases their awareness of proper ethical conduct in biomedical research. Teaches appropriate techniques for written and oral presentations; as well as ethics and standard practices for record keeping, data analysis, and authorship.

IBGS 502. Biomedical Information and Statistics. 2 Units.

Introduces students to the basics of statistical analysis in a relevant biomedical setting. Additionally, provides practical information on the use of database systems and software tools for data management and analysis.

IBGS 503. Biomedical Grant Writing. 2 Units.

Encompasses the process of writing a biomedical research grant from medical problem through final draft of an NIH-style research proposal. With guidance from the instructor, students design and write a research proposal that is ready for submission to the NIH. Familiarizes students with potential funding sources, the process of formulating a fundable research plan, and communicating that plan in an appropriate format.

IBGS 511. Cellular Mechanisms and Integrated Systems I. 6 Units.

The first quarter of a two-quarter sequence designed to give first-year graduate students an exposure to major core concepts of molecular and cellular biology.

IBGS 512. Cellular Mechanisms and Integrated Systems II. 6 Units.

The second quarter of a two-quarter sequence designed to give first-year graduate students an exposure to major core concepts of molecular and cellular biology.

IBGS 513. Cellular Mechanisms and Integrated Systems III. 8 Units.

The third quarter of a three-quarter sequence designed to give first-year graduate students a broad, integrated exposure to the molecular and cellular basis of modern human biology. Focuses on how cells and molecules work together to create functioning organs, ending with a treatment of genetic, lifestyle, and microbial contributions to human pathology. Prerequisite: IBGS 511, IBGS 512.

IBGS 515. Introduction to Bioinformatics and Genomics. 2 Units.

Introduces computer-aided analysis of macromolecules and the study of genes and their products on the level of whole genomes. Cross-listing: MICR 515.

IBGS 522. Cellular Mechanisms and Integrated Systems II Journal Club. 2 Units.

A component of IBGS, taught in a journal-club format. Presents and discusses recent literature related to IBGS 512.

IBGS 523. Cellular Mechanisms and Integrated Systems III Journal Club. 2 Units.

Employs a journal-club format that explores contemporary topics of program-specific interest to class participants.

IBGS 525. Translational Research Training. 2 Units.

This is an interactive course that brings graduate students together with medical students, clinical residents and clinical fellows in a small group setting, where they learn to develop a translational research plan for addressing clinical problems and engage various components of the community to facilitate and foster translational research leading to improved patient care and healthier communities. This course has been approved as a service learning course.

IBGS 537A. Special Topics in Biomedical Sciences. 1-4 Units.

Current topics in biomedical sciences. Specific content varies from quarter to quarter. May be repeated for additional credit.

IBGS 537B. Special Topics in Biomedical Sciences. 1-4 Units.

Current topics in biomedical sciences. Specific content varies from quarter to quarter. May be repeated for additional credit.

IBGS 537C. Special Topics in Biomedical Sciences. 1-4 Units.

Current topics in biomedical sciences. Specific content varies from quarter to quarter. May be repeated for additional credit.

IBGS 604. Introduction to Integrative Biology Presentation Seminar. 1 Unit.

Students attend a series of research descriptions presented by graduate students.

IBGS 605. Integrative Biology Presentation Seminar. 1 Unit.

A seminar course that gives graduate students in the basic sciences an opportunity to practice oral presentations on current research or current literature covering the various aspects of regulatory and integrative biology as applied to molecules, cells, tissues, organs, systems, and microbes. Students and faculty participate in a discussion and critical evaluation of the presentation.

IBGS 607. Integrated Biomedical Graduate Studies Seminar. 1 Unit.

Weekly seminars presented by invited speakers in the biomedical sciences disciplines. Students required to register for course every quarter throughout their training.

IBGS 696. Research Rotations. 1 Unit.

Incorporates the research rotations to be completed before assignment to a dissertation or thesis laboratory.

IBGS 698. Thesis. 1-5 Units.

Addresses development of a thesis document, presentation of results, and project defense. May coincide with completion of the degree but does not equate with degree completion.

IBGS 699. Dissertation. 1-5 Units.

Student produces a dissertation document describing the research project and its results, and defends the project from challenges offered by the members of their faculty dissertation committee. May coincide with completion of the degree but does not equate with degree completion, which requires submission of the final dissertation to the Faculty of Graduate Studies. Prerequisite: Successful completion of the written comprehensive examination.