

# BIOMEDICAL SCIENCES (BBS)

## **BBS 5010 - Basic Biomedical Science I**

5 Credits

This intensive, multi-disciplinary lecture course is taught by faculty from all five biomedical research programs of the medical school, that grant PhD degrees. The lecture topics include macromolecular structure, shape and information; DNA, RNA and protein synthesis; genetics and control of gene expression; membranes and intracellular organelles; and pathways and control of carbohydrate metabolism. Offered every fall semester.

## **BBS 5020 - Special Topics in Basic Biomedical Sciences I**

4 Credits

An intensive multi-disciplinary course designed for all biomedical graduate students. Course involves participation in small group laboratory exercises involving problem solving and critical analysis of the current scientific literature, with a particular focus on the current, state-of-the-art techniques in cellular and molecular biology. The special topics are selected to coordinate with the lecture topics in the co-requisite. Offered every fall semester.

## **BBS 5030 - Basic Biomedical Science II**

5 Credits

An intensive multi-disciplinary course designed for all biomedical graduate students. A continuation of BBS-5010, the course topics include bioenergetics; control of nitrogen metabolism; the cytoskeleton, extracellular matrix, and cell junctions; cell signaling and drug action; cell cycle, cancer, and development; integrated biology and the immune system. (Offered every Spring)

**Corequisite(s):** BBS 5040

## **BBS 5040 - Special Topics in Basic Biomedical Sciences II**

4 Credits

An intensive multi-disciplinary course designed for all biomedical students. Course involves participation in small group exercises involving problem solving and critical analysis of current scientific literature in selected special topics, as related to the lecture topics in the co-requisite. Offered every spring semester.

**Corequisite(s):** BBS 5030

## **BBS 5100 - Ethics for Research Scientists**

0 Credits

Course covers a variety of topics relevant to the ethical aspects of conducting and reporting scientific investigations including general ethical principles, use of animals and human subjects in research, authorship, mentorship, conflicts of interest, and scientific misconduct. Offered every spring semester.

## **BBS 5920 - Basic Biomedical Sciences Colloquium**

1-2 Credits (Repeatable for credit)

Students are introduced to the techniques of critical data analysis and formal scientific presentation through weekly colloquia. Second-year students from the various biomedical science departments present in the Fall semester, first-year students present in the spring semester. Emphasis is placed on styles of presentation and techniques for effective communication. In the Spring semester, each student critically reviews and presents a topic from the current scientific literature at one of the weekly colloquia. All students are required to attend both the scientific presentation and a 10-15 minute discussion session that follows. (Offered every Fall and Spring)

## **BBS 5970 - Research Topics in Biomedical Sciences**

1-3 Credits (Repeatable for credit)

Each semester is divided into two six to seven-week rotations in different research laboratories. Students are introduced to research problems currently under investigation and to advance techniques employed in those studies. The first rotation involves introductory activities distributed between the six graduate biomedical science programs of the medical school. Offered every fall and spring semester.