

BIOMEDICAL INFORMATICS (BIMI)

BIMI 6100 Elements in Biomedical Informatics (4)

Goals/Mission: To develop an understanding of biomedical informatics, the biomedical data, the practice modern medicine, conduct modern biological research, and health sciences education with information technology. Prerequisites: Students should have a basic understanding of intermediate mathematics. Designation: This course is for graduate students and advanced undergraduate students

BIMI 6200 Introduction to Data Science for Biomedical Informatics (3)

Goals/Mission: The goal is to provide a comprehensive orientation to data science using SQL, R, Python, and programs with application to biomedical informatics Prerequisites: The course does not require prior programming knowledge. Designation: This course is for graduate students and advanced undergraduates

BIMI 6300 Fundamentals of Data Analytics (3)

Goals/Mission: To develop an understanding of the integrated behavior of random variables multivariate data sets using R/ Python with application to complex biomedical data. Prerequisites: Students should have a basic understanding of statistics, multivariable calculus, and linear/matrix algebra. Designation: This course is for graduate students and advanced undergraduate students.

BIMI 6400 Health Informatics (3)

Goals/Mission: To develop an understanding of the advanced approaches of bioinformatics and its application. Prerequisites: Students should have a basic understanding of biomedical informatics and statistics. Designation: This course is for graduate students.

BIMI 8500 Research Methodology of Biomedical Informatics (1)

Goals/Mission: Journal clubs are a key tool for critically appraising articles and keeping up to date with the current literature. Prerequisites: Students should have taken course BIMI-7500 (prerequisite can be waive with instructor approval). Designation: This course is for graduate students only.

BIMI 8550 Computational Biology: Structure and Organization (3)

Goals/Mission: To develop an understanding of the advanced approaches of computational biology, and their application. Prerequisites: Students should have taken BIMI-6100 and BIMI-6200 courses (prerequisites can be waive with instructor approval). Designation: This course is for graduate students and advanced undergraduate students.

Prerequisite(s): BIMI 6100 and 6200.