

# BIOMEDICAL INFORMATICS (BMIN-GA)

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**BMIN-GA 3001 Advanced Topics in Bioinformatics (4 Credits)**

The course is meant to provide students with an overview of and practical experience with bioinformatics techniques.

**Grading:** GSAS Graded

**Repeatable for additional credit:** No

**BMIN-GA 3002 Clinical Decision Support (3 Credits)**

Clinical decision support can be thought of as the use of information technology to support medical decision-making. In this course, students will learn the fundamentals of clinical decision support with the end result being the design of their own clinical decision support tool.

**Grading:** GSAS Graded

**Repeatable for additional credit:** No

**BMIN-GA 3003 Proteomics (3 Credits)**

This course will give an introduction of proteomics and mass spectrometry workflows, experimental design, and data analysis with a focus on algorithms for extracting information from experimental data.

**Grading:** GSAS Graded

**Repeatable for additional credit:** No

**BMIN-GA 3004 Applied Sequencing Informatics (3 Credits)**

This course provides practical training in informatics methods for analysis of next-generation DNA sequencing (NGS) data.

**Grading:** GSAS Graded

**Repeatable for additional credit:** No

**BMIN-GA 3005 Consulting in Biomedical Informatics (3 Credits)**

This is an elective course for graduate students enrolled in the Biomedical Informatics program. Students will participate in BPIC consultations, prepare reports, present consultations to faculty mentors and their peers. The students will meet weekly to discuss former consultations as case studies, ongoing consultation and strategies for effective informatics consulting.

**Grading:** GSAS Graded

**Repeatable for additional credit:** No

**BMIN-GA 3007 Deep Learning for Biomedical Data (3 Credits)**

Students will learn the most common deep learning methods emerging in medicine. Students will be able to differentiate various deep learning methods and choose the most appropriate ones for specific research methods.

**Grading:** GSAS Graded

**Repeatable for additional credit:** No

**BMIN-GA 3008 Evaluation Methods for Predictive Risk Models (3 Credits)**

The course aims to give data scientists the multidisciplinary skills to evaluate systems and apply findings to generate change that improves organizational and system level outcomes.

**Grading:** GSAS Graded

**Repeatable for additional credit:** No