## BIOMEDICAL INFORMATICS (BMIN-GA)

**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

**BMIN-GA 4498  Advanced Integrative Omics (3 Credits)**  
This course will focus on the analysis and integration of public and in-house proteogenomic data for mismatch repair (MMR) deficient endometrial tumors to identify biomarkers associated with recurrence and response to immune checkpoint therapy.  
**Grading:** GSAS Graded  
**Repeatable for additional credit:** No