**MOLECULAR MEDICINE (MMED)**

**Explanation of Course Numbers**

- Courses in the 1000s are primarily introductory undergraduate courses.
- Those in the 2000s to 4000s are upper-division undergraduate courses that can also be taken for graduate credit with permission and additional work.
- Those in the 6000s and 8000s are for master’s, doctoral, and professional-level students.
- The 6000s are open to advanced undergraduate students with approval of the instructor and the dean or advising office.

**MMED 8214. Molecular Medicine Seminar. 2 Credits.**
Research topics in molecular medicine, including oncology, cellular and behavioral neuroscience, pharmacology, physiology, and pathophysiology. May be repeated for credit. Prerequisites: BMSC 8210, BMSC 8212 and permission of the instructor.

**MMED 8221. The Basic Science of Oncology. 3 Credits.**
Epidemiology, genetics, viruses, oncogenes, chemical carcinogenesis, radiation carcinogenesis, tumor growth, metastasis, biochemistry of cancer cells, tumor markers, hormones and cancer, cancer immunobiology, radiotherapy, chemotherapy and immunotherapy.

**MMED 8222. Molecular Oncology. 3 Credits.**
Seminar course dealing with molecular basis for the topics introduced in MMED 8221. Prerequisites: MMED 8221.

**MMED 8281. Molecular Pharmacology and Neurobiology of Excitable Tissues. 3 Credits.**
The purpose of this course is to teach graduate students in the biological sciences the basic principles of molecular pharmacology and neurobiology of excitable tissues, and the methods used in these disciplines. The initial sessions are suitable for students with little previous exposure to the subject.

**MMED 8282. Neural Development and Neurodevelopmental Disorders. 3 Credits.**
Basic concepts of neural development, especially of the cerebral cortex, and their relevance to understanding the pathophysiology of neurodevelopmental disorders.

**MMED 8998. Advanced Reading and Research. 1-12 Credits.**
May be repeated for credit. Restricted to doctoral candidates preparing for the general examination.

**MMED 8999. Dissertation Research. 3-12 Credits.**
May be repeated for credit. Restricted to doctoral candidates.