DEPARTMENT OF MEDICINAL AND BIOLOGICAL CHEMISTRY

Degrees Offered
No results found.

MBC 5100 Ethical Conduct Research
[1 credit hour]
Consideration of the scientific, ethical and legal obligations of the graduate student researcher.
Term Offered: Spring, Summer

MBC 5300 Molecular Basis of Cancer Chemotherapy
[1 credit hour]
Discussion of molecular properties and mechanisms of action that form the basis of current and emergent cancer chemotherapies.
Corequisites: PHPR 5300
Term Offered: Fall

MBC 5380 Medicinal And Poisonous Plants
[3 credit hours]
Lecture/field course examining medicinal and harmful properties of herbs and plants using pharmacognosy, clinical trials and local plant examples.
Term Offered: Summer

MBC 5620 Biochemical Techniques
[2 credit hours]
A detailed study of biochemical laboratory techniques necessary for the development of novel therapeutics, including bioassays and data analysis.
Term Offered: Fall

MBC 5900 Medicinal Chemistry Seminar
[1 credit hour]
Presentation and discussion of advanced research topics in medicinal chemistry, with an emphasis on evaluating and criticizing emerging data as a way of testing hypotheses.
Term Offered: Spring, Summer, Fall

MBC 6100 Advanced Immunology
[2 credit hours]
Readings in and critical analysis of the recent literature in immunology and basic immunologic responses, especially as considered in immunotherapy.
Term Offered: Spring, Fall

MBC 6190 Advanced Medicinal Chemistry
[4 credit hours]
Discussion of the qualitative and quantitative aspects of the design of new therapeutic agents. Approaches to the design of drugs and new therapeutic modalities directed at enzymes, receptors, membrane transport proteins and nucleic acids are examined.
Term Offered: Fall

MBC 6200 Biomedical Chemistry
[4 credit hours]
Examination of the primary literature on approaches to the design of new therapeutic agents. Recent novel directions in the design of drugs will be examined and compared.
Prerequisites: MBC 6190 with a minimum grade of D-
Term Offered: Spring

MBC 6300 Biomedical Chemistry Laboratory I
[1 credit hour]
Experimental research problems in biomedical chemistry.
Prerequisites: (MBC 6190 with a minimum grade of D- and MBC 6650 with a minimum grade of D-)
Term Offered: Spring, Fall

MBC 6310 Biomedical Chemistry Laboratory II
[3 credit hours]
Additional experimental research problems in biomedical chemistry (see MBC 6300/8300).
Prerequisites: (MBC 6190 with a minimum grade of D- and MBC 6650 with a minimum grade of D-)
Term Offered: Spring, Summer, Fall

MBC 6320 NEUROLOGICAL AND PSYCHIATRIC DRUGS
[1 credit hour]
A course analyzing the chemical and mechanistic basis for the modulation of neurologically based attributes and disorders.
Corequisites: PHCL 6320, PHPR 6140
Term Offered: Spring

MBC 6420 Protein Chemistry
[4 credit hours]
A detailed analysis of the structure and function of proteins: current methodology for the analysis of structure, the basis for molecular associations, and relationships between structure and biological function.
Prerequisites: MBC 6550 with a minimum grade of D-

MBC 6430 Nucleic Acid Chemistry
[4 credit hours]
The chemical basis for storage and transmission of genetic information.
Prerequisites: MBC 6550 with a minimum grade of D-

MBC 6440 Enzymology
[4 credit hours]
The principles of chemical catalysis applied to molecular enzymology.

MBC 6450 Advanced Synthetic and Medicinal Chemistry
[2 credit hours]
Readings in and critical analysis of recent literature in synthetic and medicinal chemistry research.
Term Offered: Spring, Fall

MBC 6550 Biochemistry
[4 credit hours]
A consideration of the structure and function of biological macromolecules as well as the basic and regulated metabolism of cells.
Term Offered: Fall

MBC 6960 M.s. Thesis Research In Medicinal Chemistry
[1-15 credit hours]
Development and pursuit of research leading to an M.S. thesis in medicinal chemistry.
Term Offered: Spring, Summer, Fall
MBC 6980 Special Topics In Biomedical Chemistry  
[1-5 credit hours]  
Selected study of topics in medicinal chemistry. New chemical and biochemical strategies in drug design are examined in detail.  
***Term Offered:*** Spring, Summer, Fall

MBC 7100 Ethnical Conduct of Research  
[1 credit hour]  
Consideration of the scientific, ethical and legal obligations of the graduate student researcher.  
***Term Offered:*** Spring, Summer

MBC 7620 Biochemical Techniques  
[2 credit hours]  
A detailed study of biochemical laboratory techniques necessary for the development of novel therapeutics, including bioassays and data analysis.  
***Term Offered:*** Fall

MBC 7900 Medicinal Chemistry Seminar  
[1 credit hour]  
Presentation and discussion of advanced research topics in medicinal chemistry, with an emphasis on evaluating and criticizing emerging data as a way of testing hypotheses.  
***Term Offered:*** Spring, Summer, Fall

MBC 8100 Advanced Immunology  
[2 credit hours]  
Readings in and critical analysis of the recent literature in immunology and basic immunologic responses, especially as considered in immunotherapy.  
***Term Offered:*** Spring, Fall

MBC 8190 Advanced Medicinal Chemistry  
[4 credit hours]  
Discussion of the qualitative and quantitative aspects of the design of new therapeutic agents. Approaches to the design of drugs and new therapeutic modalities directed at enzymes, receptors, membrane transport proteins and nucleic acids are examined.  
***Term Offered:*** Fall

MBC 8200 Biomedical Chemistry  
[4 credit hours]  
Examination of the primary literature on approaches to the design of new therapeutic agents. Recent novel directions in the design of drugs will be examined and compared.  
**Prerequisites:** MBC 8190 with a minimum grade of D-  
***Term Offered:*** Spring

MBC 8300 Biomedical Chemistry Laboratory I  
[1 credit hour]  
Experimental research problems in biomedical chemistry.  
**Prerequisites:** (MBC 6190 with a minimum grade of D- and MBC 8550 with a minimum grade of D-)  
***Term Offered:*** Spring, Fall

MBC 8310 Biomedical Chemistry Laboratory II  
[3 credit hours]  
Additional experimental research problems in biomedical chemistry (see MBC 6300/8300).  
**Prerequisites:** (MBC 6190 with a minimum grade of D- and MBC 8550 with a minimum grade of D-)  
***Term Offered:*** Spring, Summer, Fall

MBC 8420 Protein Chemistry  
[4 credit hours]  
A detailed analysis of the structure and function of proteins: current methodology for the analysis of structure, the basis for molecular associations, and relationships between structure and biological function.

MBC 8430 Nucleic Acid Chemistry  
[4 credit hours]  
The chemical basis for storage and transmission of genetic information.

MBC 8440 Enzymology  
[4 credit hours]  
The principles of chemical catalysis applied to molecular enzymology.

MBC 8450 Advanced Synthetic and Medicinal Chemistry  
[2 credit hours]  
Readings in and critical analysis of recent literature in synthetic and medicinal chemistry research.  
***Term Offered:*** Fall

MBC 8550 Biochemistry  
[4 credit hours]  
A consideration of the structure and function of biological macromolecules as well as the basic and regulated metabolism of cells.  
***Term Offered:*** Fall

MBC 8960 Ph.d. Dissertation Research In Medicinal Chemistry  
[1-15 credit hours]  
Development and pursuit of research leading to a Ph.D. dissertation in medicinal chemistry.  
***Term Offered:*** Spring, Summer, Fall

MBC 8980 Special Topics In Biomedical Chemistry  
[1-5 credit hours]  
Selected study of topics in medicinal chemistry. New chemical and biochemical strategies in drug design are examined in detail.  
***Term Offered:*** Spring, Summer, Fall