Division of Medicinal Chemistry and Pharmacognosy
College of Pharmacy, The Ohio State University

Biochemical Track
Graduate Course requirements

Students in the Biochemical Track are required to complete the course requirement in biochemistry, organic chemistry and medicinal chemistry

Biochemistry/Molecular Biology courses

Biochemistry 661.01, 661.02 or 613, 614 and 615
One 700-level or higher course in Biochemistry or Molecular Biology, which could include but is not limited to:
- Biochem 710 - Molecular Biology Laboratory
- Chemistry 733 – Chemistry of Bio-Organic Catalysts and Enzymes
- Chemistry 990 - Protein Targeting, Translocation, and Transport
- Mol. Genetics 880.06 – Transcriptional Regulation of Gene Expression
- Mol. Genetics 880.07 - Post-transcriptional Regulation of Gene Expression
- Microbiology 723 - Immunology and Immunochemistry
- Microbiology 750 – Molecular Basis of Microbial Biodiversity
- Microbiology 760 – Advanced Microbial Biochemistry
- MVIMG 747 – Molecular Biology of Eucaryotic Microbial Pathogens
- MVIMG 754 – Fundamentals of Molecular Virology
- OSBP 701 - Molecular Genetics: DNA Transactions
- OSBP 702 - Regulation of Gene Expression
- OSBP 761 - Proteins
- OSBP 762 - Enzymes
- OSBP 763 - Membranes & Bioenergetics
- OSBP 764 - Intermediary Metabolism

Medicinal Chemistry

Ph 735 – Advanced Medicinal Chemistry
Ph 789 – Isolation Techniques in Research
Three electives from the following:
- Pharmacy 800 - Radioisotope Tracer Techniques and Radiopharmaceuticals
- Pharmacy 835 - Advanced Medicinal Chemistry, Autumn Quarter
- Pharmacy 836 - Advanced Medicinal Chemistry, Winter Quarter
- Pharmacy 837 - Chemotherapy of Infectious Diseases
- Pharmacy 851 - Advanced Pharmacognosy

*If the student has already taken coursework equivalent to these courses, two upper-level courses in Biochemistry/Molecular Biology will be substituted to meet the requirement

Organic Chemistry

Chemistry 730 – Intermediate organic chemistry

Summary

Nine courses will be required (five in Pharmacy, three in Biochemistry/Molecular Biology, and one in Organic Chemistry). Students and advisors will have the option to undertake more coursework if desired.

Recommendation

An advisory committee of the same composition as the oral exam committee should meet yearly with the student to monitor the student's progress through the program.

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