

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

**Computational Medchem Track  
Graduate Course requirements**

**Biochemistry**      PHR 6010 – Biopharmacy I  
                             PHR 6020 – Biopharmacy II  
                             IBGP 7012 – Protein structure and function

**Chemistry**  
  
                             Chem 6410 – Basic organic reaction mechanisms  
                             Chem 6420 – Stereochemistry and conformational analysis  
                             Chem 7470 – Computational Chemistry

**Medicinal Chemistry**  
  
                             PHR 7350 - Drug Discovery and Drug design  
                             PHR 8380 - Advanced Medicinal Chemistry: structure-based computer-aided molecular design

**Three electives from the follow courses**

CSE 2451 – Advanced C Programming  
PHR 8360 - Advanced Medicinal Chemistry II  
IBGP 7300 – Biomedical informatics I  
Chem 7550 – Statistical Thermodynamics  
CSE 5231 – Software engineering techniques  
CSE 5361 – Numerical methods  
PHR 7370 – Advanced pharmaceutical analysis  
PHR 7891 – Chromatographic methods  
Biochem 706 – Advanced biological chemistry lab

**Note:** The courses listed above are in addition to the course requirements common to all graduate students in the Division of Medicinal Chemistry and Pharmacognosy, namely Ph 8520 (Research Ethics) and Ph 8880/8881 (College and Division Seminars). One enrollment in 8880 or 8881 is required per semester while on campus (with three 8880.01 or 8881.01 enrollments prior to graduation).

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