APPROVED TECHNICAL ELECTIVES FOR THE CWRU BIOCHEMISTRY MAJOR

This list shows our preferred electives. Your technical electives should be courses on this list. Some of these courses are not listed in SIS yet. For these courses, you’ll need to complete an Academic Advisement Report Substitution Form.

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**FALL SEMESTER**

ANAT 312  Basic Histology  
BIOC 312  Proteins and Enzymes  
BIOC 360  Technologies in Cancer Research  
BIOC 501  Biochemical and Cellular Techniques for Biotechnology  
BIOL 301  Biotechnology Laboratory  
BIOL 306  Mathematical Analysis of Biological Models  
BIOL 326  Genetics  
BIOL 346  Human Anatomy  
BIOL 362  Principles of Developmental Biology  
BIOL 373  Introduction to Neurobiology  
BIOL 374  Neurobiology of Behavior  
CHEM 304  Quantitative Analysis Laboratory (2)  
CHEM 311  Inorganic Chemistry I  
CHEM 331  Laboratory Methods in Inorganic Chemistry  
ECHE 340  Biochemical Engineering  
MATH 376  Mathematical Analysis of Biological Models  
NTRN 328  Child Nutrition, Development and Health  
PHRM 309  Principles of Pharmacology  
PHOL 468  Membrane Physiology  
PHYS 320  Introduction to Biological Physics

Notes to students:
1. Check the Bulletin for prerequisites and the course schedule for availability.
2. Most graduate courses require the consent of the instructor. Discuss your desire to take a course with your adviser and the course instructor before registration.
3. BIOC 312 and BIOC 334 are both required courses for the BS Biochemistry major and neither can serve as a technical elective for Biochemistry BS students.
4. For BA students who complete both BIOC 312 and BIOC 334, one course will serve as a required course and the other can serve as a technical elective.
5. We may accept other courses as technical electives. If you wish to include a course that’s not on this list, check with Dr. Samols.
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SPRING SEMESTER

ANAT 312 Basic Histology
ANAT 391 Embryology
ANAT 610 Oxygen and Physiological Function
BIOC 334 Structural Biology
BIOC 350 Molecular Basis of Cancer
BIOC 354 Biochemistry and Biology of RNA
BIOL 300 Dynamics of Biological Systems
BIOL 316 Fundamental Immunology (4)
BIOL 319 Applied Probability and Stochastic Processes for Biology
BIOL 325 Cell Biology
BIOL 326 Genetics
BIOL 328 Plant Genomics and Proteomics
BIOL 340 Human Physiology
BIOL 343 Microbiology
BIOL 346 Human Anatomy
BIOL 363 Experimental Developmental Biology
BIOL 378 Computational Neuroscience
BIOL 402 Principles of Neural Science
CHEM 302 Introductory Physical Chemistry II (accepted as elective for BA only)
CHEM 305 Introductory Physical Chemistry Lab
CHEM 325 Physical Methods for Determining Organic Structure
CHEM 333 Medicinal Chemistry & Drug Development
CHEM 339 Bioinorganic Chemistry
CHEM 421 Advanced Organic Chemistry I
MBIO 450 Cells and Pathogens
MPHP 464 Obesity and Cancer
NTRN 434 Advanced Human Nutrition II
PATH 444 Neurodegenerative Diseases
PHOL 466 Cell Signaling
PHOL 514 Cardiovascular Physiology

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