Cellular and Molecular Biology Option

A course of study is available for those students who wish to work in biological laboratory settings. This option also is suitable for students who wish to pursue an advanced degree, such as an M.S. or Ph.D., in the biological sciences. The courses listed here are in addition to the General Education (Gen Ed) requirements of the university. Your advisor may recommend specific General Education courses. Latest update: 26 October 2010. Advisors: Dr. Eric Gillock, Dr. Yass Kobayashi.

Tier I: **** required course for Biology majors***	**Credit Hours**
* BIOL 180/180L Principles of Biology/Lab [*fall and spring*]	4
* BIOL 325/325L Genetics/Lab [*fall and spring*]	4
At least 2 of the following required:	
BIOL 250/250L Introductory Botany/Lab [*fall and spring*]	4
BIOL 260/260L Introductory Zoology/Lab [*fall and spring*]	4
BIOL 490/490L General Microbiology/Lab [*spring only*]	5
Tier II: ***at least 4 courses required (* required for option)***	
BIOL 330/330L Plant Anatomy/Lab [*spring only; even-numbered years*]	4
BIOL 345/345L Human Anatomy/Lab [*spring only*]	4
* BIOL 346/346L Human Physiology/Lab [*fall only*]	4
BIOL 395/395L Ecology/Lab [*spring only*]	4
BIOL 420 Evolution [*fall only; odd-numbered years*]	3
* BIOL 435/435L Cellular Biology/Lab [*spring only*]	4
BIOL 450/450L Comparative Anatomy/Lab [*fall only; even-numbered years*]	5
BIOL 495/495L Plant Physiology/Lab [*spring only; odd-numbered years*]	4
* BIOL 620/620L Biostatistics/Lab [*fall only*]	4
Tier III: ***with significant advisor input (* required)***	
* BIOL 648 Immunology	3
Choose at least 1 of the following:	
BIOL 345/345L Human Anatomy/Lab [*spring only*]	4
BIOL 606 Scanning Electron Microscopy	5
BIOL 607 Topics in Biology: Virology	3
BIOL 642/642L Parasitology/Lab	4
BIOL 644/644L Embryology/Lab	3-5
BIOL 645 Histology	3
BIOL 675 Microbiology of the Pathogens	3
Cognates: **** required course for option***	
* CHEM 120/120L University Chemistry I/Lab	5 (Gen Ed)
* CHEM 122/122L University Chemistry II/Lab	5
* CHEM 340/340L Organic Chemistry I/Lab	5
* CHEM 342/342L Organic Chemistry II/Lab	5
* CHEM 360/360L Essentials of Biochemistry/Lab	5
* MATH 331 Calculus Methods	3 (Gen Ed)
* PHYS 111/111L Physics I/Lab	5 (Gen Ed)
* PHYS 112/112L Physics II/Lab	5
* IDS 400 Bioethics	3 (Gen Ed)
Additional General Education Courses	42

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