

UMBC UGC Program Changes & Other Request: Biochemistry & Molecular Biology, B.S. degree: Upper Level Electives

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Proposed Effective Date: Fall 2020

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Specifics (see instructions):

Upper Level Electives

Students must complete two of the following courses with a grade of “D” or higher (6-8 credits).

Current Elective Options

BIOL 411	Bacterial Physiology
BIOL 414	Eukaryotic Molecular Genetics
BIOL 420	Adv Topics:Cell Biology
BIOL 425	Immunology
BIOL 426	Appr To Molecular Biol
BIOL 428	Computer Appl Molec Biol
BIOL 429	Advanced Topics in Mol Biol
BIOL 434	Microbial Molec Genetics
BIOL 443	Adv Topics:Devel Biology
BIOL 444	Development And Cancer
BIOL 445	Signal Transduction
BIOL 451	Neurobiology
BIOL 454	Vision Science
BIOL 456	Plant Molecular Biology
BIOL 470	General Virology
BIOL 476	Antibiotics
BIOL 483	Evol: From Genes To Genomes
BIOL 486	Genome Science
CHEM 406	Bioinorganic Chemistry
CHEM 431	Chemistry Of Proteins
CHEM 432	Advanced Biochemistry
CHEM 433	Biochem Of Nucleic Acids
CHEM 435	Cpx Carbohydrates
CHEM 441	Macromolecules
CHEM 442	Physical Biochemistry
CHEM 443	Spectroscopy/Biopolymers
CHEM 444	Molecular Modeling
CHEM 450	Chem Hetero Compds
CHEM 451	Mech Of Organic Reaction
CHEM 453	Org Chem Nucl Acid
CHEM 455	Intro Biomedical Chem
CHEM 457	Total Syn Nat Products

Proposed Elective Options

BIOL 411	Bacterial Physiology
BIOL 414	Eukaryotic Molecular Genetics
BIOL 420	Adv Topics:Cell Biology
BIOL 421	Topics in Molecular Genetics
BIOL 425	Immunology
BIOL 426	Appr To Molecular Biol
BIOL 428	Computer Appl Molec Biol
BIOL 429	Advanced Topics in Mol Biol
BIOL 434	Microbial Molec Genetics
BIOL 443	Adv Topics:Devel Biology
BIOL 444	Development And Cancer
BIOL 445	Signal Transduction
BIOL 451	Neurobiology
BIOL 454	Vision Science
BIOL 456	Plant Molecular Biology
BIOL 470	General Virology
BIOL 476	Antibiotics
BIOL 483	Evol: From Genes To Genomes
BIOL 486	Genome Science
CHEM 406	Bioinorganic Chemistry
CHEM 431	Chemistry Of Proteins
CHEM 432	Advanced Biochemistry
CHEM 433	Biochem Of Nucleic Acids
CHEM 435	Cpx Carbohydrates
CHEM 441	Macromolecules
CHEM 442	Physical Biochemistry
CHEM 443	Spectroscopy/Biopolymers
CHEM 444	Molecular Modeling
CHEM 450	Chem Hetero Compds
CHEM 451	Mech Of Organic Reaction
CHEM 453	Org Chem Nucl Acid
CHEM 455	Intro Biomedical Chem

CHEM 461	Adv Instrumental Methods	CHEM 457	Total Syn Nat Products
CHEM 467	Advanced Analytical Methods	CHEM 461	Adv Instrumental Methods
CHEM 470	Toxicological Chemistry	CHEM 467	Advanced Analytical Methods
CHEM 472	Enzyme Reaction Mech'ism	CHEM 470	Toxicological Chemistry
CHEM 490	Special Topics In Chemistry	CHEM 472	Enzyme Reaction Mech'ism
CHEM 601	Current Topics In Chem	CHEM 490	Special Topics In Chemistry
CHEM 635	Cpx Carbohydrates	CHEM 601	Current Topics In Chem
CHEM 640	Spec Top:Molecular Struc	CHEM 635	Cpx Carbohydrates
CHEM 670	Sp Top:Dynamcs/Mechisms	CHEM 640	Spec Top:Molecular Struc
CHEM 680	Sem In Biophysical Chem	CHEM 670	Sp Top:Dynamcs/Mechisms
CHEM 682	Special Topics	CHEM 680	Sem In Biophysical Chem
CHEM 684	Spec Topics In Chemistry	CHEM 682	Special Topics
		CHEM 684	Spec Topics In Chemistry

Rationale (see instructions):

We would like to request BIOL 421 – Topics in Molecular Genetics be added to the list of upper level elective options for Biochemistry & Molecular Biology majors. For the BIOC BS major, students must complete 6-8 credits of upper level electives from a given list. BIOL 421 was originally taught as a special topic under BIOL 420 – Advanced Topics in Cell Biology, a course already acceptable for the major. BIOL 421 is relevant to the field of biochemistry and would broaden the course options for our students.