

## Biochemistry Science Selectives List

<b>Credits</b>	<b>Acronym/Number</b>	<b>Title</b>
3	ABE 20100	Thermodynamics In Biological Systems I
3	ABE 20200	Thermodynamics In Biological Systems II
3	ABE 20500	Computations For Engineering Systems
3	ABE 21000	Biological Applications Of Material And Energy Balances
2	ABE 22600	Biotechnology Laboratory I
2	ABE 22700	Biotechnology Laboratory II
3	ABE 30100	Modeling And Computational Tools In Biological Engineering
3	ABE 30300	Applications Of Physical Chemistry To Biological Processes
3	ABE 30500	Physical Properties Of Biological Materials
3	ABE 31000	Thermodynamics Of Food And Biological Systems
3	ABE 32000	Solid Modeling, Simulation, And Analysis
4	ABE 32500	Soil And Water Resource Engineering
3	ABE 33000	Design Of Machine Components
3	ABE 33600	All Terrain Vehicle Design
3	ABE 37000	Biological/Microbial Kinetics And Reaction Engineering
3	ABE 43000	Instrumentation And Data Acquisition
3	ABE 51100	Drug Development
3	ABE 51200	Good Regulatory Practice
3	ABE 52200	Ecohydrology
3	ABE 53100	Instrumentation And Data Acquisition
3	ABE 56000 (BME 52100)	Biosensors: Fundamentals and Applications
3	AGRY 25500	Soil Science
3	AGRY 27000	Forest Soils
3	AGRY 29000	Introduction To Environmental Science
3	AGRY 33700	Environmental Hydrology
3	AGRY 34900	Soil Ecology
4	AGRY 38500	Environmental Soil Chemistry
3	AGRY 43100 (EAS 42100)	Atmospheric Thermodynamics
3	AGRY 43200 (EAS 42200)	Atmospheric Dynamics I
3	AGRY 43300 (EAS 42300)	Atmospheric Dynamics II
1	AGRY 44100 (EAS 43100)	Synoptic Laboratory I
1	AGRY 44200 (EAS 43200)	Synoptic Laboratory II
1	AGRY 44300 (EAS 43300)	Synoptic Laboratory III
3	AGRY 46500	Soil Physical Properties
3	AGRY 48000	Plant Genetics
3	AGRY 51100	Population Genetics
3	AGRY 51500	Plant Mineral Nutrition
3	AGRY 52000	Principles And Methods Of Plant Breeding
3	AGRY 52500	Crop Physiology And Ecology
3	AGRY 53000	Advanced Plant Genetics
3	AGRY 53500	Boundary Layer Meteorology
3	AGRY 53600	Environmental Biophysics
3	AGRY 54000	Soil Chemistry
3	AGRY 54400	Environmental Organic Chemistry
4	AGRY 55200	Advanced Statistics For Experimental Research
3	AGRY 55300	Introduction To SAS For Statistical Analysis
3	AGRY 55500	Soil And Plant Analysis
3	AGRY 56000	Soil Physics
2	AGRY 57200	Molecular Cytogenetics
1	AGRY 57300	Molecular Cytogenetics Laboratory
3	AGRY 58000	Soil Microbiology
2	AGRY 58100	Soil Microbiology Laboratory
3	ANSC 22100	Principles Of Animal Nutrition
4	ANSC 23000	Physiology Of Domestic Animals

1	ANSC 29500 (by title only)	Anatomy & Physiology Lab – Honors
3	ANSC 33300	Physiology Of Reproduction
1	ANSC 33400	Physiology Of Reproduction Laboratory
3	ANSC 51100	Population Genetics
3	ANSC 51400	Animal Biotechnology
3	ANSC 52200	Monogastric Nutrition
3	ANSC 52400	Ruminant Nutrition And Physiology
2	ANSC 53500	Avian Physiology
2	ANSC 53600	The Digestive System In Health And Disease
3	ANSC 55500	Animal Growth And Development
1-4	BCHM 27500	Honors Course, Lower Division
1-2	BCHM 29800	Introduction To Biochemistry Research

(no more than 4 credit hours of BCHM 29800 or 29801, or combination of the two, may be used as science selectives, and no more than 6 credits today among BCHM 29800, 29801, 49800 and 49801)

0.5-1.0	BCHM 29801	Head Start To Introductory Biochemistry Research
1-3	BCHM 49500	Special Topics in Biochemistry
1-4	BCHM 49800	Research In Biochemistry

(BCHM 49800 credits in excess of the 3 required under BCHM requirements may be used as science electives, up to 6 credits total among BCHM 29800, 29801, 49800 and 49801)

0.5-2.0	BCHM 49801 BCHM 60000-69999	Head Start To Biochemistry Research
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BIOL 200-204, 221, 286-294, 301-497, 499-699

3	BTNY 20700	The Microbial World
3	BTNY 20900	Plant Diversity
3	BTNY 21100	Plants And The Environment
3	BTNY 30100	Introductory Plant Pathology
3	BTNY 30200	Plant Ecology
4	BTNY 31600	Plant Anatomy
3	BTNY 35000 (HORT 35000)	Biotechnology In Agriculture
3	BTNY 42000	Plant Cellular And Developmental Biology
3	BTNY 50400	Advanced Weed Science
3	BTNY 50500	Advanced Biology Of Weeds
3	BTNY 55000	Biology Of Fungi
3	BTNY 55100	Plant-Bacterial Interactions
3	BTNY 55200	Molecular Approaches In Plant Biology
3	BTNY 55300 (HORT 55300)	Plant Growth And Development
3	BTNY 55800	Pathogens Of Plants

CS 20000-59999

CHM 22400-24100, 32100-32800, 34200-34300, 42400-47500, 48100, 52500, 53600-69900

2	CNIT 22700	Introduction To Bioinformatics
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EAPS 22000-59900

2	ENTM 20600	General Entomology
1	ENTM 20700	General Entomology Laboratory
3	ENTM 21000	Introduction To Insect Behavior
3	ENTM 21800	Introduction To Forensic Science
3	ENTM 22810	Forensic Investigation
3	ENTM 22820	Forensic Analysis
3	ENTM 31100	Insect Ecology

4	ENTM 31800	Criminalistics
3	ENTM 41800	Advanced Criminalistics
4	ENTM 50600	Advanced Insect Taxonomy
3	ENTM 55100	Insect Physiology And Biochemistry
3	FNR 20100	Marine Biology
3	FNR 20300	Freshwater Ecology
3	FNR 22500	Dendrology
3	FNR 24100	Ecology And Systematics Of Fishes And Mammals
1	FNR 24200	Laboratory In Ecology And Systematics Of Fishes And Mammals
3	FNR 25100	Ecology And Systematics Of Amphibians, Reptiles, And Birds
1	FNR 25200	Laboratory In Ecology And Systematics Of Amphibians, Reptiles, And Birds
3	FNR 30500	Conservation Genetics
3	FNR 32200	Forest Soil: Properties, Processes, And Management
3	FNR 33100	Forest Ecosystems
3	FNR 35100	Aquatic Sampling Techniques
3	FNR 35300	Natural Resources Measurement
3	FNR 43400	Tree Physiology
4	FNR 44700	Vertebrate Population Dynamics
3	FNR 45300	Fish Physiology
3	FNR 45500	Fish Ecology
3	FNR 50500	Molecular Ecology And Evolution
3	FNR 51100 (AGRY 51100, ANSC 51100)	Population Genetics
3	FNR 54300	Conservation Biology I
3	FNR 54400	Conservation Biology II
3	FNR 55100	Advanced Ichthyology
3	FNR 55200	Advanced Freshwater Ecology
3	FS 36200	Food Microbiology
2	FS 36300	Food Microbiology Laboratory
3	FS 43100	Physical Chemistry For Food And Agriculture
4	FS 45300	Food Chemistry
3	FS 46700	Food Analysis
2	FS 46900	Food Analysis Laboratory
3	FS 56500	Microbial Foodborne Pathogens
2	FS 56600	Microbial Techniques For Food Pathogens
3	FS 59100	Science Experimental Cuisine

HONR Courses by title:

3	HONR 19900	Human Genetics: New Hopes & Dilemmas
3	HONR 19900	Science and Pseudoscience: An Adventure into Logical Thinking & Inquiry
3	HONR 29900	Paradigm Shifts in Biology and Medicine
3	HONR 29900	Physics for Future Presidents
3	HONR 39900	Probability: The Science of Uncertainty
4	HORT 30100	Plant Physiology
1	HORT 50100	Scanning Electron Microscopy: Principles
2	HORT 50200	Scanning Electron Microscopy: Application
1	HORT 50300	Transmission Electron Microscopy: Principles
2	HORT 50400	Transmission Electron Microscopy: Application
3	HORT 55100 (BIOL 55100)	Cellular And Molecular Plant Physiology
3	HORT 55300 (BTNY 55300)	Plant Growth And Development
2	IT 22600	Biotechnology Laboratory I
2	IT 22700	Biotechnology Laboratory II

MA 25000-59999

MCMP 20600-59999

3	NRES 23000 (EAS 22100)	Survey Of Meteorology
3	NRES 25500 (AGRY 25500)	Soil Science
3	NRES 29000 (EAS 11300, AGRY 29000)	Introduction To Environmental Science
4	NRES 38500 (AGRY 38500)	Environmental Soil Chemistry
3	NUTR 30300	Essentials Of Nutrition
3	NUTR 31500	Fundamentals of Nutrition
4	NUTR 43500	Nutrition - Metabolism
3	NUTR 43700	Macronutrient Metabolism In Human Health And Disease
3	NUTR 43800	Micronutrient And Phytochemical Metabolism In Human Health And Disease
4	NUTR 45300	Food Chemistry
3	STAT 21300	Problem And Decision Theory
3	STAT 22500	Introduction To Probability Models
2	STAT 25000 (MA 25000)	Problems Solving In Probability
3	STAT 31100	Introductory Probability

STAT 41600-47900, 51200-59900

3	TLI 52100	Drug Development
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