

EAST TENNESSEE STATE UNIVERSITY — COLLEGE OF ARTS AND SCIENCES
DEPARTMENT OF CHEMISTRY
CHEMISTRY MAJOR—BIOCHEMISTRY CONCENTRATION

Name: _____ E#: _____ Catalog Year: _____

TBR Requirements: See other check sheet

Biochemistry Concentration Core (22 cr)

CHEM 1110: General Chemistry I Lecture	(F/S)	4 cr
CHEM 1111: General Chemistry I Lab	(F/S)	0 cr
CHEM 1120: General Chemistry II Lecture	(F/S)	4 cr
CHEM 1121: General Chemistry II Lab	(F/S)	0 cr
CHEM 2010: Organic Chemistry I Lecture	(F/S)	3 cr
CHEM 2011: Organic Chemistry I Lab	(F/S)	2 cr
CHEM 2020: Organic Chemistry II Lecture	(F/S)	3 cr
CHEM 2021: Organic Chemistry II Lab	(F/S)	2 cr
CHEM 2220: Quantitative Analysis Lecture	(F/S)	2cr
CHEM 2221: Quantitative Analysis Lab	(F/S)	2 cr

Additional Required Courses (52-56 cr)

BIOL 1110: Biology for Majors I Lecture	(F/S)	4 cr
BIOL 1111: Biology for Majors I Lab	(F/S)	0 cr
BIOL 1120: Biology for Majors II Lecture	(F/S)	4 cr
BIOL 1121: Biology for Majors II Lab	(F/S)	0 cr
BIOL 1130: Biology for Majors III Lecture	(F/S)	4 cr
BIOL 1131: Biology for Majors III Lab	(F/S)	0 cr
BIOL 3100: General Genetics	(F/S)	3 cr
BIOL 4147: Biochem. of Macromolecules Lecture	(F)	3 cr
BIOL 4157: Biochem. of Macromolecules Lab	(F)	2 cr
BIOL 4167: Biochem. of Metabolism Lecture	(S)	3 cr
BIOL 4177: Biochem. of Metabolism Lab	(S)	2 cr
CHEM 3110: Descriptive Inorganic Chemistry	(F)	3 cr
CHEM 3611: Introductory Integrated Lab	(F/S)	2 cr
CHEM 3750: Physical Chemistry I	(F)	3 cr
CHEM 3760: Physical Chemistry II	(S)	3 cr

Two of the Following (4 cr)

CHEM 4611: Advanced Integrated Lab– Dynamics	(F/S)	2 cr
CHEM 4621: Advanced Integrated Lab– Structures	(S)	2 cr
CHEM 4631: Adv. Integrated Lab– Analytical Tech	(F)	2 cr

Pick one of the following

BIOL 3141: Genetics Lab	(F/S)	2 cr
BIOL: 4597: Recombinant DNA Lab	(S)	3 cr

Select one from the following (3-5 cr)

BIOL 3150: Cell Biology Lecture	(F/S)	3 cr
BIOL 3151: Cell Biology Lab	(F/S)	2 cr
BIOL 4647: Molecular Biology	(F)	3 cr
HSCI 3320: General Microbiology Lecture		4 cr
HSCI 3321: General Microbiology Lab		0 cr
HSCI 3540: Immunology	(S)	3 cr
PHYS 3510: Biophysics		3 cr

Other Required Courses (16-18 cr)

MATH 1910: Calculus I	(F/S)	4 cr
MATH 1920: Calculus II	(F/S)	4 cr
PHYS 2010: General Physics I Non-Calc Lec	(F/S)	3 cr
PHYS 2011: General Physics I Non-Calc Lab	(F/S)	1 cr
PHYS 2020: General Physics II Non-Calc Lec	(F/S)	3 cr
PHYS 2021: General Physic II Non-Calc Lab	(F/S)	1 cr

OR

PHYS 2110: Technical Physics I-Calculus Based	(F)	5 cr
PHYS 2120: Technical Physics II-Calculus Based	(S)	5 cr

Other Bachelor of Science Required Courses

PHIL 2640: Science and the Modern World	(F/S)	3 cr
SPCH 2320: Argumentation and Debate		
PHIL 2030: Practical Reasoning	OR	(F/S) 3 cr

Elective Requirements

0-4 cr

Subject	Course #	Title	Hours
CHEM	4010	Seminar in Chemistry - Recommended Only	2 cr

Electives may include the one or more of the following recommended courses during the last semester of study:

BIOC 5100: Protein Structure and Function, BIOC 5350: Molecular Immunology, BIOC 5600: Genetics and Molecular Biology, BIOC 5700: Macromolecular Interactions, BIOL 2992 Research Orientation, BIOC 4900 Special Topics in Biochemistry, BIOL 4900: Independent Study, CHEM 4900: Research in Chemistry

Student Signature: _____

Advisor Signature: _____

Advisor Printed Name: _____