

Core Courses: All CBBI students must take Chemical Biology (CHEM60560, 3 credits, taught in the Spring semester, counts as a quantitative course), CHEM60680: Biomedical Research Ethics (1 credit, taught in the Fall semester), CHEM/BIOS93651/CHEM/BIOS93652: Chemistry & Biology Interface Seminar.

Elective Courses: In addition to the core courses, CBBI students take additional 3 credits of courses in the other discipline (eg, chemistry students take 3 credits of biological disciplines courses, biochemistry students take 3 credits of chemistry courses, and biology students take 3 credits of chemistry courses. At least 3 credits must be from a quantitative course.

Chemistry Courses	Biological Disciplines Courses
CHEM60529 Enzyme and Coenzyme Mechanisms (1)	CHEM/BIOS 50531 Molecular Biology I (3)
CHEM60532 Optical Spectroscopy (3)	CHEM/BIOS50532 Molecular Biology II (3)
CHEM60535 Medicinal Chemistry (3)	CHEM60520 Principles of Biochemistry (3)
CHEM60614 Advanced Inorganic Chemistry (3)	CHEM60526 Biochemical Equilibria (1)
CHEM90620 Bioinorganic Chemistry (3)	CHEM60527 Protein Structure & Folding (1)
CHEM60630 Intermediate Organic Chemistry (3)	CHEM60528 Biochemical Methods (1)
CHEM60631 Advanced Organic Chemistry I (3)	CHEM 60531 Hallmarks of Cancer & Therapy
CHEM60632 Advanced Organic Chemistry II (3)	CHEM60534 Methods in Biochemistry (2)
CHEM60633 Advanced Analytical Chemistry (3)	CHEM60536 Enzyme Kinetics & Mechanism (1)
CHEM60634 Structure Elucidation (3)	CHEM60537 Carbohydrates & Glycobiology (1)
CHEM60618 Chemical Crystallography (3)	CHEM60538 Lipids & Membranes (1)
CHEM90620 Bioinorganic Chemistry (3)	CHEM60539 Molecular Metabolism (1)
CHEM90626 NMR Spectroscopy in Chemistry and Biochemistry (3)	CHEM60540 Signal Transduction (1)
CHEM90628 Special Topics Bioanalytical Chemistry (3)	CHEM60541 Genomics & Proteomics (3)
CHEM90638: Biomolecule Recognition (3)	CHEM60542 Molecular Pharmacology (3)
CHEM90638 Special Topics Industrial Organic Chemistry (3)	CHEM60624 Advanced Biochemical Techniques (4)
CHEM90639 Synthetic Organic Chemistry (3)	CHEM 90625 Molecular Biophysics (3)
CHEM60641 Statistical Mechanics (3)	CHEM 90627 Practical Bioinformatics Protein Structure & Function (3)
CHEM60649 Quantum Mechanics (3)	BIOS60530 Immunobiology of Infectious Disease (3)
CHEM90650 Computational Chemistry I (3)	BIOS60539 Advanced Cell Biology I (3)
	BIOS60540 Advanced Cell Biology II (3)
	BIOS60556 Biomedical Histology (3)
	BIOS60560 Topics Microbiology (V)
	BIOS60566 Topics Immunology (V)
	BIOS60669 Topics Infectious Diseases (V)
	BIOS60670 Topics Cell Biology (V)
	BIOS60571 Topics Physiology: Bone Biology (3)
	BIOS60576 Topics Biocomp: Adv Biostatistics (3)
	BIOS60577 Topics Genetics/ Molecular Biology (3)
	BIOS60578 Topics Mathematical Biology (V)
	BIOS60610 Water, Disease & Global Health (3)
	BIOS80301 Histology (4)
	CSE60531 Comp Biophysics & Systems Biol (3)

Quantitative Courses

CHEM60520 Principles of Biochemistry (3)	BIOS60423 Topics Molecular Genetics: Genomics Sequence to Organism (V)
CHEM60527 Protein Structure & Folding (1)	BIOS60529 Theoretical Population Ecology (3)
CHEM60528 Biochemical Methods (1)	BIOS60563 Topics in Epidemiology: Research Methods in Global Health Science (V)
CHEM60529 Bio-organic Chemistry (1)	BIOS60563 Topics in Epidemiology: Global Health Challenges (V)
CHEM60532 Optical Spectroscopy (3)	BIOS60569 Topics in Infectious Diseases: Epidemiology and Ecology of Infectious Diseases (V)
CHEM60535 Medicinal Chemistry (3)	BIOS60576 Topics Biocomp: Adv Biostatistics (3)
CHEM60536 Enzyme Kinetics & Mechanism (1)	BIOS60578 Topics Mathematical Biology (V)
CHEM60541 Genomics & Proteomics (3)	CSE60532 Bioinformatics Computing (3)
CHEM60542 Molecular Pharmacology (3)	CSE60531 Comp Biophysics & Systems Biol (3)
CHEM60630 Intermediate Organic Chemistry (3)	ACMS60850 Applied Probability (3)
CHEM60631 Advanced Organic Chemistry I (3)	ACMS60852 Stat Methods Bio and Health Sci (3)
CHEM60632 Advanced Organic Chemistry II (3)	ACMS70860 Stochastic Analysis (3)
CHEM60634 Structure Elucidation (3)	
CHEM60618 Chemical Crystallography (3)	
CHEM60641 Statistical Mechanics (3)	
CHEM60649 Quantum Mechanics (3)	
CHEM90620 Bioinorganic Chemistry (3)	
CHEM 90625 Molecular Biophysics (3)	
CHEM90626 NMR Spectroscopy in Chemistry and Biochemistry (3)	
CHEM90628 Special Topics Bioanalytical Chemistry (3)	
CHEM90638 Special Topics Industrial Organic Chemistry (3)	
CHEM90639 Synthetic Organic Chemistry (3)	
CHEM90650 Computational Chemistry I (3)	

Quantitative courses: courses that involve measurement of quantity or amount, analysis using mathematical or computational methods, manipulation of data using statistical, mathematical or computational methods

Quantitative research: systematic investigation using statistical, mathematical or computational techniques, including collection of numerical data, analysis using mathematical methods, development of instruments and methods for measurement, modeling and analysis of data.