Chemistry &	Biochemistry	Courses -	WINTER 2025
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1st year Course Number:	Course Title:	Instructor(s):	
CHEM-1103	Topics in General Chemistry	TBA	
CHEM-1110	General Chemistry II	Phil Dutton	
		Jeremy Rawson	
		Sam Johnson	
2nd year			
BIOC-2010/2015	Organic Chemistry of Biomolecules	Ken Ng	
CHEM-2310	Introductory Organic Chemistry II	Phil Dutton	
CHEM-2410 CHEM-2510	Physical Chemistry II Introductory Inorganic Chemistry II	TBA Nick Vukotic	
CHEWI 2510	introductory morganic chemistry in	Wick vulotic	
3rd year			
BIOC-3030	Natural Health Products	Siyaram Pandey	_
BIOC-3110	Metabolism II	TBA	
BIOC-3130 BIOC-3310	Protein and Nucleic Acid Chemistry Pharmacology for Health Sciences	Yufeng Tong Sirinart Ananvoranich	
BIOC-3581B	Biotechnology Laboratory	John Hudson	
CHEM-3210	Principles of Instrumental Analysis	Scott Mundle	
CHEM-3310/3315	Intermediate Organic Chemistry	Jim Green	
CHEM-3400	Quantum Chemistry	James Gauld	
CHEM-3909	Internship Work Term I	Nick Vukotic	
4th year			
BIOC-4020	Lipids, Lipoproteins, and Signaling	TBA	
BIOC-4050	<u>Drug Design</u>	Sirinart Ananvoranich	
BIOC-4580	The Human Subject: Non-Animal Methods Biomed Research	TBA (CL with BIOC-8580)	
CHEM-4410	Statistical Thermodynamics	Jichang Wang (CL with CHEM-8410)	
CHEM-4610	Polymer Chemistry Self-Organization by Malagular Pagign	Zhuo Wang (CL with CHEM-8308)	
CHEM-4630 CHEM-4660	<u>Self-Organization by Molecular Design</u> <u>Special Topics: Data Science and Machine Learning</u>	S. Holger Eichhorn (CL with CHEM-8630) Scott Mundle (CL with CHEM-8208)	
CHEM-4900B	Research	Yufeng Tong	
CHEM-4908	Internship Work Term II	Nick Vukotic	
Grad Courses			
BIOC-8580	The Human Subject: Non-Animal Methods Biomed Research	TBA (CL with BIOC-4580)	R / MMB
BIOC-8684 CHEM-8XXX	Cell Death and Diseases (Physical Chemistry course)	Siyaram Pandey TBA	R / MMB R/MMB/MMCE
CHEM-8208	Spcl Topics Analytical Chem: Data Science & Machine Learning	Scott Mundle (CL with CHEM-4660)	R
CHEM-8308	Special Topics in Organic Chem: Polymer Chemistry	Zhuo Wang (CL with CHEM-4610)	R
CHEM-8410	Statistical Thermodynamics	Jichang Wang (CL with CHEM-3410)	R
CHEM-8630	Self-Organization by Molecular Design	S. Holger Eichhorn (CL with CHEM-4630)	R / MMCE
CHEM-8831A	Research Project (MMCE)	Zareen Amtul	ММСЕ
MMCE-8905	Advanced Seminar in MMCE	Zareen Amtul	MMCE
BIOC-8730	<u>Drugs: From Discovery to Market</u>	Tranum Kaur	ММВ
BIOC-8760	<u>Clinical Biochemistry</u>	Tranum Kaur	ММВ
CHEM-8900	Seminar	Simon Rondeau-Gagne	R (MSc & PhD)
CHEM-8970	Master's Thesis	Simon Rondeau-Gagne	R (MSc)
CHEM-9900	Research Proposal	Simon Rondeau-Gagne	R (PhD)
CHEM-9980	PhD Dissertation	Simon Rondeau-Gagne	R (PhD)
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Chemistry & Biochemistry Courses - FALL 2024

1st year			
Course Number:	Course Title:	Instructor(s):	
CHEM-1003	Science Through the Ages	TBA	
CHEM-1100	General Chemistry I	Phil Dutton	
		Zhuo Wang	
2nd year			
CHEM-2200	Analytical Chemistry	Jichang Wang	
CHEM-2300/2305	Introductory Organic Chemistry	Jim Green	
CHEM-2400	Introductory Physical Chemistry I	Jichang Wang	
CHEM-2500	Introductory Inorganic Chemistry I	Jeremy Rawson	
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3rd year			
BIOC-3100	Metabolism I	Siyaram Pandey	
BIOC-3140	Protein and Enzyme Engineering	Ken Ng (CL with BIOC-8008-1 & -2)	
BIOC-3581A	Biotechnology Laboratory	Otis Vacratsis	
CHEM-3300/3305	Spectroscopic Structure Identification	Zhuo Wang	
CHEM-3500	Organometallic Chemistry	Sam Johnson	
CHEM-3710	Materials Chemistry	Tricia Carmichael	
CHEM-3909	Internship Work Term I	Nick Vukotic	
4th year			
BIOC-4030	Enzymology and Biotechnology	Otis Vacratsis	
CHEM-4308	Special Topics Organic Chem: Heterocyclic Chemistry	Jim Green (CL with CHEM-8330)	
CHEM-4599	Applications of Inorganic Spectroscopy	Sam Johnson (CL with CHEM-8599)	
CHEM-4660	Special Topics Chemistry: X-ray Crystallography	Nick Vukotic (CL with CHEM-8530)	
CHEM-4832	Magnetochemistry	Jeremy Rawson (CL with CHEM-8832)	
CHEM-4900A	Research	Yufeng Tong	
CHEM-4908	Internship Work Term II	Nick Vukotic	
Grad Courses			
BIOC-8008-1 & -2	Charial Tanics Diag Pratain & Enguma Engineering	Von Na (c) with pioc 2140)	R / MMB
BIOC-8008-3 & -4	Special Topics Bioc: Protein & Enzyme Engineering	Ken Ng (CL with BIOC-3140)	R / MMB
BIOC-8020	<u>Special Topics Bioc: Antiviral Therapeutics</u> Structural Proteomics and its Applications	Ken Ng Yufeng Tong	R / MMB
CHEM-8330	Synth Methods Org Chem: Heterocyclic Chemistry	Jim Green (CL with CHEM-4308)	R
CHEM-8530	X-ray Crystallography	Nick Vukotic (CL with CHEM-4660)	R / MMCE
CHEM-8599	Applications of Inorganic Spectroscopy	Sam Johnson (CL with CHEM-4599)	R
CHEM-8832	Magnetochemistry	Jeremy Rawson (CL with CHEM-4832)	R / MMCE
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MMCE-8820B	Introduction to Materials Engineering & Chemistry	TBA	MMCE
MMCE-8821B	Materials Engineering/Chemistry Laboratory	MAME: Dr. Reza Riahi	MMCE
MMCE-8905	Advanced Seminar in Materials Chem & Eng	Zareen Amtul	MMCE
BIOC-8700	Human Physiology & Mechanisms of Disease	Tranum Kaur	ММВ
BIOC-8740	Protein Structure and Function	Zareen Amtul	ММВ
BIOC-8780	Biotechnology Entrepreneurship	Zareen Amtul	ММВ
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CHEM-8900	<u>Seminar</u>	Simon Rondeau-Gagne	R (MSc & PhD)
CHEM-8970	Master's Thesis	Simon Rondeau-Gagne	R (MSc)

CHEM-9900Research ProposalSimon Rondeau-GagneR (PhD)CHEM-9980PhD DissertationSimon Rondeau-GagneR (PhD)