

Combined Bachelor of Science/Master of Science in Chemistry (2004 General Education)

UNDERGRADUATE REQUIREMENTS

I. GENERAL EDUCATION REQUIREMENTS		(47 s.h.)
A. New Student Seminar		(1 s.h.)
B. Interdisciplinary Courses		(9 s.h.)
Contemporary Issues I	(3 s.h.)	
Contemporary Issues II	(3 s.h.)	
Contemporary Issues III	(3 s.h.)	
C. Communication		(9 s.h.)
Writing/Literature	(6 s.h.)	
Communication	(3 s.h.)	
D. Fine and Performing Arts	(3 s.h.)	(3 s.h.)
E. World Languages	(6 s.h.)	(6 s.h.)
F. Humanities		(6 s.h.)
World Lit or Gen. Humanities	(3 s.h.)	
Philosophy/Religion	(3 s.h.)	
G. Computer Science	(3 s.h.)	(3 s.h.)
H. Math (Satisfied by MATH 122)		
I. Natural/Physical Science (Satisfied by CHEM 120)		
J. Physical Education	(1 s.h.)	(1 s.h.)
K. Social Science		(9 s.h.)
American/European History	(3 s.h.)	
Non-Western Cultures	(3 s.h.)	
Social Science	(3 s.h.)	
L. General Education Elective (Satisfied by PHYS 191)		
II. CHEMISTRY COURSES		(40 s.h.)
CHEM - 120 General Chemistry I	(4 s.h.)	
CHEM - 121 General Chemistry II	(4 s.h.)	
CHEM - 230 Organic Chemistry I	(3 s.h.)	
CHEM - 231 Organic Chemistry II	(3 s.h.)	
CHEM - 232 Experimental Organic Chemistry I	(2 s.h.)	
CHEM - 233 Experimental Organic Chemistry II	(2 s.h.)	
CHEM - 310 Analytical Chemistry	(5 s.h.)	
CHEM - 311 Instrumental Analysis	(4 s.h.)	
CHEM - 340 Physical Chemistry I	(3 s.h.)	
CHEM - 341 Physical Chemistry II	(3 s.h.)	
CHEM - 342 Experimental Physical Chemistry	(2 s.h.)	
CHEM - 470 Biochemistry I	(3 s.h.)	
CHEM - 495 The Chemical Literature	(1 s.h.)	
CHEM - 499 Undergraduate Research	(1 s.h.)	
III. COLLATERAL COURSES		
A. MATHEMATICS COURSES		(11 s.h.)

MATH - 122 Calculus I	(4 s.h.)	
MATH - 221 Calculus II	(4 s.h.)	
STAT - 401 Applied Statistics for Sciences or STAT - 440 Foundations of Modern Statistics	(3 s.h.)	
B. PHYSICS COURSES		(8 s.h.)
PHYS - 191 University Physics I	(4 s.h.)	
PHYS - 192 University Physics II	(4 s.h.)	
C. CHEMISTRY ELECTIVES (select 2 courses)		(6 s.h.)
CHEM - 410 Advanced Analytical Chemistry	(3 s.h.)	
CHEM - 423 Advanced Inorganic Chemistry	(3 s.h.)	
CHEM - 430 Advanced Organic Chemistry	(3 s.h.)	
CHEM - 440 Advanced Physical Chemistry	(3 s.h.)	
CHEM - 472 Biochemistry II	(3 s.h.)	
CHEM - 490 Selected Topics In Chemistry	(3 s.h.)	
Total Undergraduate Requirements		(112 s.h.)

GRADUATE REQUIREMENTS

I. CHEMISTRY CORE

A. ORGANIC & INORGANIC CHEMISTRY (select 2 courses)		(6 s.h.)
CHEM - 521 Adv Topics in Inorganic Chemistry	(3 s.h.)	
CHEM - 531 Adv Topics in Organic Chemistry	(3 s.h.)	
CHEM - 532 Organic Synthesis	(3 s.h.)	
CHEM - 550 Organometallic Chemistry	(3 s.h.)	
B. ANALYTICAL & PHYSICAL CHEMISTRY (select 2 courses)		(6 s.h.)
CHEM - 534 Chromatographic Methods	(3 s.h.)	
CHEM - 535 Nuclear Magnetic Resonance	(3 s.h.)	
CHEM - 540 Chemical Thermodynamics	(3 s.h.)	
CHEM - 542 Theoretical Physical Chemistry	(3 s.h.)	
CHEM - 544 Electrochemistry	(3 s.h.)	
CHEM - 546 Chemical Spectroscopy	(3 s.h.)	
CHEM - 548 Chemical Kinetics	(3 s.h.)	

II. CHEMISTRY ELECTIVES (select 2 courses)		(6 s.h.)
CHEM - 525 Bioinorganic Chemistry	(3 s.h.)	
CHEM - 533 Biosynthesis of Natural Products	(3 s.h.)	
CHEM - 538 Drug Design in Medicinal Chemistry	(3 s.h.)	
CHEM - 570 Selected Topics in Advanced Biochemistry	(3 s.h.)	
CHEM - 574 Protein Structure	(3 s.h.)	
CHEM - 575 Enzyme Kinetics and Mechanisms	(3 s.h.)	
CHEM - 576 Lipid Chemistry	(3 s.h.)	
CHEM - 577 Nucleic Acid Biochemistry	(3 s.h.)	
CHEM - 590 Selected Topics - Advanced Chemistry	(3 s.h.)	
III. RESEARCH REQUIREMENTS		(8 s.h.)
CHEM - 595 Graduate Research	(5 s.h.)	
CHEM - 698 Thesis	(3 s.h.)	

Total Graduate Requirements		(26 s.h.)
Total Credits for the Combined BS-MS in Chemistry		(138 s.h.)