

Recommended Chronology: Curriculum for BS Chemistry: Pre-Medicine and Pre-Dentistry Programs

Updated Aug. 2009

Freshman Year			
Fall Semester		Spring Semester	
CHEM 1145 Principles of Chemistry I (4 hrs.)		CHEM 1146 Principles of Chemistry II (4 hrs.)	
ENGL 1101 English Composition I (3 hrs.)		ENGL 1102 English Composition II (3 hrs.)	
FYE 1220 First-Year Seminar (2 hrs.)		MATH 1441 Calculus I (4 hrs.)	
BIOL 2107/2107L Principles of Biology I / Lab (4 hrs.)		BIOL 2108/2108L Principles of Biology II / Lab (4 hrs.)	
MATH 1112 Trigonometry (3 hrs.)		HLTH 1520 Healthful Living (2 hrs.)	
Total Hours = 16		Total Hours = 17	

Sophomore Year			
Fall Semester		Spring Semester	
CHEM 3341 Organic Chemistry I (4 hrs.)		CHEM 3342 Organic Chemistry II (4 hrs.)	
COMM 1110 Principles of Public Speaking (3 hrs.)**		CHEM 2030 Principles of Chemistry Research (3 hrs.)	
MATH 2242 Calculus II (4 hrs.)		CHEM 2242 Analytical Chemistry (4 hrs.)	
BIOL 3130 Genetics (3 hrs.)		AREA E Elective - SOCI1101 or PSYC1101* (3 hrs.)	
KINS (1 hr.)		HIST 2110 US Survey (3 hrs.)	
Total Hours = 15		Total Hours = 17	

**Strongly recommended as Area C elective

*Strongly recommended as Area E elective

Junior Year			
Fall Semester		Spring Semester [#]	
CHEM 5541 Biochemistry I (4 hrs.)		CHEM XXXX – Biochemistry II recommended (4 hrs.)	
CHEM 4241 Instrumental Analysis (4 hrs.)		IDS 2210 Turning Pts & Connections (1 hr.)	
PHYS 2211/1113 Prin. of Physics I w Lab (4 hrs.)		PHYS 2212/1114 Prin. of Physics II w Lab (4 hrs.)	
STAT 2231 Intro to Statistics (3 hrs.)		POLS 1101 American Government (3 hrs.)	
HIST 1112 World History II (3 hrs.)		ECON 2105 Economics in a Global Society (3 hrs.)	
Total Hours = 18		Total Hours = 15	

[#]Also focus on studying for MCAT

Senior Year			
Fall Semester		Spring Semester	
CHEM 3441 Physical Chemistry I (4 hrs.)		CHEM 3442 Physical Chemistry II (4 hrs.)	
AREA D Environmental Science (4 hrs.)		CHEM 3140 Adv. Inorganic Chemistry (4 hrs.)	
CHEMISTRY ELECTIVE – choose from list (4 hrs.)		CHEMISTRY ELECTIVE – choose from list (3hrs.)	
ENGL 2111 or 2112 World Literature (3 hrs.)		BIOLOGY ELECTIVE – choose from list (4 hrs.)	
		KINS (1 hr.)	
Total Hours = 15		Total Hours = 16	

BIOLOGY ELECTIVE (consult your advisor)

BIOL 3230 Intro to Immunology or BIOL 5248 Immunology
 BIOL 3240 Bio of Microorganisms or BIOL 5140 Bacteriology
 BIOL 5142 Molecular Biotechniques
 BIOL 5148 Human Genetics
 BIOL 5230/5210 Comparative Animal Physiology/Lab
 BIOL 5240 Histology
 BIOL 5241 Comparative Vertebrate Anatomy
 BIOL 5341 Parasitology
 BIOL 5246 Human Pathophysiology
 BIOL 5431 Virology
 BIOL 5146 Developmental Biology

CHEMISTRY ELECTIVES (min: 11 hrs. and two *courses)

*CHEM 4242 Electrochemical Analysis (4 hrs)
 *CHEM 4243 Principles of Chemical Separations
 *CHEM 4244 Advanced NMR Spectroscopy (4 hrs)
 *CHEM 4331 Advanced Organic Chemistry (3 hrs)
 *CHEM 4332 Principles of Drug Design (3 hrs)
 *CHEM 4333 Carbohydrate Chemistry (3hrs.)
 *CHEM 5243 Environmental Chemistry (4 hrs)
 *CHEM 5531 Bioinorganic Chemistry (3 hrs.)
 ***CHEM 5542 Biochemistry II (4 hrs) - recommended**
 CHEM 3010 Scientific Glassblowing (1 hr)
 CHEM 4790 Chemistry Internship (1 hr)
 CHEM 4890 Chemical Research Experience (1-4 hrs)