CHEMISTRY - BA, BIOLOGICAL CHEMISTRY OR MEDICAL, DENTAL, PHARMACY SCHOOL TRACK

Program Requirements

First Year

Fall		Semester Credit Hours
CHEM 100	Horizons in Chemistry	1
CHEM 119	Fundamentals of Chemistry I [1]	4
ENGL 104	Composition and Rhetoric	3
MATH 151 or MATH 171	Engineering Mathematics I or Calculus I	4
American history (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history)		3
	Semester Credit Hours	**15**
Spring		
BIOL 111	Introductory Biology I	4
CHEM 120	Fundamentals of Chemistry II [1]	4
MATH 152 or MATH 172	Engineering Mathematics II or Calculus II	4
American history (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history)		3
	Semester Credit Hours	**15**

Second Year

Fall		
BIOL 112	Introductory Biology II	4
CHEM 227	Organic Chemistry I [1]	3
CHEM 231	Techniques of Organic Chemistry	2
POLS 207	State and Local Government	3
General elective [2]		3
	Semester Credit Hours	**15**
Spring		
CHEM 228	Organic Chemistry II [1]	3
CHEM 234	Organic Synthesis and Analysis [3]	3
PHYS 206	Newtonian Mechanics for Engineering and Science	3
PHYS 226	Physics of Motion Laboratory for the Sciences	1
POLS 206	American National Government	3
GENE 301 or GENE 320/ BIMS 320	Comprehensive Genetics or Biomedical Genetics	3
	Semester Credit Hours	**16**

Third Year

Fall		
BIOL 351 or VTPB 405	Fundamentals of Microbiology or Biomedical Microbiology	4
CHEM 315	Fundamentals of Quantitative Analysis	3
CHEM 318	Quantitative Analysis Laboratory	1
PHYS 207	Electricity and Magnetism for Engineering and Science	3
PHYS 227	Electricity and Magnetism Laboratory for the Sciences	1
Communication (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#communication)		3
	Semester Credit Hours	**15**
Spring		
CHEM 327	Physical Chemistry I	3
Select one of the following:		4
BIOL 318	Chordate Anatomy	
BIOL 319	Integrated Human Anatomy and Physiology I	
VIBS 305	Biomedical Anatomy	
Creative arts (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts)		3
Language, philosophy and culture (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture)		3
	Semester Credit Hours	**13**

Fourth Year

Fall		
BICH 410 or BICH 440	Comprehensive Biochemistry I or Biochemistry I	3
CHEM 325	Physical Chemistry Laboratory I	1
CHEM 328	Physical Chemistry II	3
CHEM 481	Seminar [3]	2
Select one of the following:		4
BIOL 320	Integrated Human Anatomy and Physiology II	
BIOL 388	Principles of Animal Physiology	
VTPP 423	Biomedical Physiology I	
Social and behavioral sciences (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#social-behavioral-sciences)		3
	Semester Credit Hours	**16**
Spring		
BICH 411 or BICH 441	Comprehensive Biochemistry II or Biochemistry II	3
CHEM 326	Physical Chemistry Laboratory II	1
General electives [2]		11
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**120**

[1] Select a section designated for chemistry majors.

[2] Select any course 100-499 not used elsewhere except AERS 100-299 (http://catalog.tamu.edu/undergraduate/course-descriptions/aers/);

CHEM 222, CHEM 242; MATH 102, MATH 140, MATH 142, MATH 167, MATH 168; MLSC 100-299 (http://catalog.tamu.edu/undergraduate/course-descriptions/mlsc/); NVSC 100-299 (http://catalog.tamu.edu/undergraduate/course-descriptions/nvsc/); PHYS 201, PHYS 202, PHYS 205.

[3] This is a designated C- or W-course.

Graduation requirements include a requirement for 3 hours of International and Cultural Diversity (http://catalog.tamu.edu/undergraduate/general-information/degree-information/international-cultural-diversity-requirements/) courses and 3 hours of Cultural Discourse (http://catalog.tamu.edu/undergraduate/general-information/degree-information/cultural-discourse-requirements/) courses. A course satisfying a Core category, a college/department requirement, or a general elective can be used to satisfy this requirement.

BA chemistry majors may take CHEM 485 or CHEM 491 as elective courses. The total hours of CHEM 485 and CHEM 491 taken on a graded (A-F) basis may not exceed 9. Additional hours of these courses may be taken on an S/U basis. A maximum of 6 hours of these courses may be included on the degree plan.

Electives should be chosen in consultation with the chemistry advisor and should be selected to meet the residency requirement (36 hours at 300-400-level must be taken at Texas A&M).