

Bio/chemical Science Degrees Comparison Sheet

COURSE	Pre-Med Track	Biochem B.S.	Chemistry B.S.	Chemistry B.A.	Chem Minor	Bio B.S.	Bio B.A.	Bio Minor
	Courses listed below PLUS: - FYS 101 - literature class These courses should usually be completed by end of Jr. year	Required courses PLUS: - two advanced bio - third advanced bio or advanced chem or research	Required courses PLUS: 2 Advanced Chem (8 required + seminar + 2 electives)	Required courses PLUS: 1 Advanced Chem (6 required + seminar + 1 elective)	Required courses PLUS: 1 elective above 200 level	Required core PLUS: - 6 bio at or above 300 level (2 diversity) - 5 other math/science courses, no more than 3 from 1 dept.	Required core PLUS: 5 bio at or above 300 level (2 diversity)	Required core PLUS: 3 bio at or above 300 level (1 diversity)
General Chem (CHEM 121&122)	Two semesters required	Two semesters required	Two semesters required	Two semesters required	Two semesters required	Two semesters required	Two semesters required	
Intro Biology (BIO 150)	Required	Required				Required	Required	Required
Calculus I (MATH 123)	Requirements range from no math to one course in math to one year of Calculus	Required	Required	Required				
Calculus II (MATH 124)		Required	Required	Required				
Physics I&II (PHYSICS 121&122)	Two semesters required	Two semesters required	Two semesters required	Two semesters required				
Cell and Molecular Biology (BIO 201)	Recommended or required, by program	Required				Required	Required	Required
Ecology and Evolution (BIO 202)						Required	Required	Required
Organic Chem (CHEM 223&224)	Two semesters required	Two semesters required, with majors lab (228)	Two semesters required, with majors lab (228)	Two semesters required, with majors lab (228)	Two semesters required	Recommended or required by some graduate programs		
Analytical Chem (CHEM 231) (Fall only)		Required	Required	Required	Elective			
Microbiology (BIO 315) (not all semesters)	Strongly recommended	Elective				Elective	Elective	Elective
Biochemistry (BIO/CHEM 302) (Fall only)	Strongly recommended or required, depending on program	Required	Elective; required for ACS certification	Elective	Elective	Elective	Elective	Elective
Physical Chem (CHEM 341 and 342) (requires Calculus II)		One semester required; second semester elective	Two semesters required	One semester required; second semester elective	Elective			
Advanced Biochem (BIO/CHEM 401) (Spring only)		Required	Elective	Elective	Elective	Elective	Elective	Elective
Chemistry seminar (CHEM 472) (Spring only)			Required	Required	Elective			
Biochem seminar (BIO/CHEM 482) (Spring only)		Required			Elective	Elective	Elective	Elective
Advanced Microbio (Bio 316) (not all semesters)		Elective				Elective	Elective	Elective
Developmental bio (BIO 324)(not all semesters)	Recommended	Elective				Elective	Elective	Elective
Genetics (BIO 325) (not all semesters)	Recommended	Elective				Elective	Elective	Elective
Immunology (BIO 341) (not all semesters)		Elective				Elective	Elective	Elective
Advanced Cell Bio (BIO 345) (not all semesters)		Elective				Elective	Elective	Elective
other advanced Biology classes that have a molecular-scale focus (not all semesters)		Elective, with departmental approval				Elective	Elective	Elective
Advanced Organic Chem (CHEM 402) (not all years)		Elective	Elective	Elective	Elective			
Inorganic Chemistry (CHEM 417) (not all years)		Elective	Required	Elective	Elective			
Instrumental (CHEM 431) (Spring only)		Elective	Elective; required for ACS certification	Elective	Elective, but analytical chem is a prereq.			
Research		Elective; may satisfy req for major, with dept. approval	Elective; 1 semester = 1 "course" for major reqs	Elective; 1 semester = 1 "course" for major reqs		Elective; 2 semester = 1 "course" for major reqs	Elective; 2 semester = 1 "course" for major reqs	