## **BS Biochemistry Progression** Begin with MATH 1221 or higher

Freshman year Course prefix/number hours The math that you test into-MATH 1221 or MATH 2221 (PG1)  The math that you test into-MATH 1221 or required  ATH 2221 (PG1)  The math that you feet into-MATH 1221 or required  The math that you feet into-MATH 1221 or req	
The math that you test into-MATH 1221 or MATH2221 if needed for professional school	earned Total hrs earned for
CORE 1101 (PG3) 3 3 CORE 1102 (PG3); pre-req CORE 1101 1 1 ENGL 1101 (PG1) 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	academic year* Min 30 Max 34
Ethos course of choice if desired (PG1, PG2, PG3  between 14-17 hrs  Consult advisor regarding number of hours to take	
first semester.  Fall Interim Spring	Hours earned
Sophomore Course prefix/number hours course hours Course prefix/number hours	Total hrs earned
CHEM3201/33201L (Organic Chem. I & Lab); pre-req CHEM1102  BIOL1107/1107L (Prin. Biology) pre-req 4 MATH1101  A INTM course 3 CHEM3202/3302L (Organic Chem. II& Lab); pre-req CHEM3301  BIOL1108/1108L (Prin. Biology) pre-req 4 MATH1101	Min 27 Max 35
OPTIONS (choose from below with advisor)  PHYS1101/1101L (Intro. Physics I&Lab); pre- req MATH2105  Ethos course of choice from PG1 (if not complete), PG2, PG3; choose 1 or more  3	
courses.  Course for Minor or Prof. School Requirements.  3-4 Requirements. 3-7 Requirements.	
between 12-16 hrs hrs 3 between 12-16 hrs	
Fall Interim Spring	Hours earned
lunior year Course prefix/number hours course hours Course prefix/number hours	Min 25 Max 34
PHYS1101/1101L (Intro. Physics I&Lab, if not already taken); pre-req MATH2105  4  OPTIONS (choose from below with advisor)  4  PHYS1102 (Intro. Physics I&L, if not already taken); pre-req PHYS1101  CHEM3311 (El. Of Physical Chem., required even years); pre-req PHYS1101 and 3	
CHEM421 (Biochemistry I and Lab); pre-req CHEM3302 Upper Level Elective Ethos course of choice from PG2, PG3; choose 1 or more courses. Course for Minor or Prof. School Requirements.  Course for Minor or Prof. School Requirements.  CHEM422 (Biochemistry II and Lab); pre-req CHEM4421 Upper Level Elective 3 Ethos course of choice from PG2, PG3; CHEM4421 Upper Level Elective 3 Ethos course of choice from PG2, PG3; Choose 1 or more courses.	
CHEM4421 (Biochemistry I and Lab); pre-req CHEM3302 Upper Level Elective Ethos course of choice from PG2, PG3; choose I or more courses. Course for Minor or Prof. School Requirements.  CHEM422 (Biochemistry II and Lab); pre-req 4 Upper Level Elective 3 Upper Level Elective 3 Upper Level Elective 3	
CHEM4421 (Biochemistry I and Lab); pre-req 4 CHEM3302 Upper Level Elective 3-4 Ethos course of choice from PG2, PG3; choose 1 or more courses.  Course for Minor or Prof. School Requirements.  Course for Minor or Prof. School School Requirements.  Course for Minor or Prof. School School Requirements.  Course for Minor or Prof. School School School Requirements.	
CHEM4421 (Biochemistry I and Lab); pre-req CHEM3302 Upper Level Elective 3-4 Ethos course of choice from PG2, PG3; choose 1 or more courses. Course for Minor or Prof. School Requirements.  1 CHEM422 (Biochemistry II and Lab); pre-req CHEM421 Upper Level Elective 3 Ethos course of choice from PG2, PG3; choose 1 or more courses. Course for Minor or Prof. School Requirements.  5 Course for Minor or Prof. School Requirements.  6 Course for Minor or Prof. School Requirements.  7 Sequirements. 8 Setween 13-17 hrs 8 Setween 12-14 hrs 8 Setween 12-14 hrs	Hours earned
CHEM421 (Biochemistry I and Lab); pre-req CHEM3302 Upper Level Elective 3-4 Ethos course of choice from PG2, PG3; choose 1 or more courses. Course for Minor or Prof. School Requirements.  3-4  between 13-17 hrs  Detween 13-17 hrs  Detween 0-3 hrs  Course prefix/number  LIEM3371 (Jr. Seminar)  1  OPTIONS (choose from below with advisor) CHEM422 (Biochemistry II and Lab); pre-req CHEM421 Upper Level Elective 3 Ethos course of choice from PG2, PG3; 3 Course for Minor or Prof. School Requirements.  Senior year  Fall Interim Spring Course prefix/number hours  Course prefix/number hours	
CHEM421 (Biochemistry I and Lab); pre-req CHEM3302 Upper Level Elective 3-4 Ethos course of choice from PG2, PG3; choose 1 or more courses. Course for Minor or Prof. School Requirements.  2	earned
CHEM421 (Biochemistry I and Lab); pre-req CHEM3302 Upper Level Elective Ethos course of choice from PG2, PG3; choose 1 or more courses. Course for Minor or Prof. School Requirements.  between 13-17 hrs  between 0-3 hrs  Course for Minor or Prof. School Requirements.  between 13-17 hrs  between 0-3 hrs  Course prefix/number Course prefix/number CHEM421 (Biochemistry I and Lab, if not already taken); pre-req CHEM3302  OPTIONS (choose from below with advisor)  CHEM421 (Biochemistry I and Lab, if not already taken); pre-req CHEM3302  OPTIONS (choose from below with advisor)  CHEM3201 (Ir. Seminar)  1  OPTIONS (choose from below with advisor)  1  OPTIONS (choose from below with advisor)  CHEM3311 (Ir. OF Physical Chem. Required even years); pre-req PHYS1101 and 3  CHEM3201  CHEM3201 (Ir. Seminar)  1  OPTIONS (choose from below with advisor)	earned
CHEM4421 (Biochemistry I and Lab); pre-req CHEM3302 Upper Level Elective 3-4 Ethos course of choice from PG2, PG3; choose 1 or more courses. Course for Minor or Prof. School Requirements.  Senior year  Fall  Course prefix/number Course prefix/number CHEM421 (Biochemistry I and Lab, if not already taken); pre-req CHEM3302  Upper Level Elective  Interim  Spring  Course prefix/number Course for Minor or Prof. School Already taken); pre-req CHEM4302  Upper Level Elective 3-4  CHEM421 (Biochemistry I and Lab, if not already taken); pre-req CHEM3302  Upper Level Elective 3-4  CHEM421 (Biochemistry I and Lab, if not already taken); pre-req CHEM3302  Upper Level Elective 3-4  CHEM3311 (E. OF Mosose from below with advisor)  Upper Level Elective 3-4  CHEM421 (Biochemistry II and Lab, if not already taken); pre-req CHEM421  CHEM3310 (CHEM3311 (E. OF Mosose from below with advisor)  Upper Level Elective 3-4  CHEM421 (Sinchemistry II and Lab, if not already taken); pre-req CHEM421  CHEM3310 (CHEM3311 (E. OF Mosose from below with advisor)  CHEM471 (Sr. Seminar) 2  CHEM471 (Sr. Seminar) 2  CHEM471 (Sr. Seminar) 2  CHEM471 (Sr. Seminar) 2	earned
CHEM4421 (Biochemistry I and Lab); pre-req CHEM3302 Upper Level Elective 3-4 Ethos course of choice from PG2, PG3; choose 1 or more courses.  Course prefix/number Course prefix/number CHEM421 (Biochemistry I and Lab, if not already taken); pre-req CHEM3302  OPTIONS (choose from below with advisor)  CHEM422 (Biochemistry I and Lab, if not already taken); pre-req CHEM3302  Upper Level Elective 3-4  Course prefix/number Course prefix/number Course for Minor or PG2, PG3; choose 1 or more courses.  Course of choice from PG2, PG3; choose 1 or more courses.  Course of Chem422 (Biochemistry II and Lab, if not already taken); pre-req CHEM3302  Upper Level Elective 3-4  Chem422 (Biochemistry II and Lab, if not already taken); pre-req CHEM421 (CHEM3201 CHEM3201 CHEM320	earned
CHEM4421 (Biochemistry I and Lab); pre-req CHEM3302 Upper Level Elective 3-4 Ethos course of choice from PG2, PG3; choose 1 or more courses.  Course for Minor or Prof. School Requirements.  Senior year  Fall  Course prefix/number Course prefix/number Alection already taken); pre-req CHEM3302  Upper Level Elective  The M422 (Biochemistry II and Lab); pre-req Achem421 Upper Level Elective 3 Ethos course of choice from PG2, PG3; choose 1 or more courses.  Course prefix/number Abouts  CHEM421 (Biochemistry II and Lab, if not already taken); pre-req CHEM3302  Upper Level Elective 3-4  Chem421 (Biochemistry II and Lab, if not already taken); pre-req CHEM3302  Upper Level Elective 3-4  Chem421 (Biochemistry II and Lab, if not already taken); pre-req CHEM3302  Upper Level Elective 3-4  Chem421 (Biochemistry II and Lab, if not already taken); pre-req CHEM3201  Chem421 (Biochemistry II and Lab, if not already taken); pre-req CHEM3201  Chem421 (Biochemistry II and Lab, if not already taken); pre-req CHEM3201  Chem421 (Sr. Seminar) 2  OPTIONS (choose from below with advisor)  Chem4271 (Sr. Seminar) 2  OPTIONS (choose from below with advisor)  Linger Level Elective 2-4  Chem3201  Chem421 (Sr. Seminar) 2  OPTIONS (choose from below with advisor)  Linger Level Elective 2-4  Linger Lev	earned
CHEM421 (Biochemistry I and Lab); pre-req CHEM3302 Upper Level Elective 3-4 Ethos course of choice from PG2, PG3; choose 1 or more courses. Course for Minor or Prof. School Requirements.  between 13-17 hrs  between 0-3 hrs  between 0-3 hrs  between 12-14 hrs  Senior year  Fall  Course prefix/number Course prefix/number already taken); pre-req CHEM3302  CHEM421 (Biochemistry I and Lab, if not already taken); pre-req CHEM3302  Upper Level Elective 3-4  CHEM421 (Biochemistry I and Lab, if not already taken); pre-req CHEM3302  Upper Level Elective 3-4  Ethos course of choice from PG2, PG3; choose 1 or more courses. COURSE for Minor or PG3, PG3; choose 1 or more courses. COURSE from below with advisor)  Upper Level Elective 3-4  Ethos course of choice from PG2, PG3; choose 1 or more courses. Course for Minor or PG3, PG3; choose 1 or more courses. Course for Minor or PG4, PG3; choose from below with advisor)  Upper Level Elective 3-4  Ethos course of choice from PG2, PG3; choose 1 or more courses. Course for Minor or PG5, School Requirements.  3-4  Ethos course of choice from PG2, PG3; choose 1 or more courses. Course for Minor or PG5, School Requirements.  3-4  Ethos course of Minor or PG5, School Requirements. 3-4  Ethos course of Choice from PG2, PG3; choose 1 or more courses. Course for Minor or PG5, School Requirements. 3-4  Ethos course of Choice from PG2, PG3; choose 1 or more courses. Course for Minor or PG5, School Requirements. 3-4	earned

-During fall, interim, and spring semesters of each academic year, a student must earn on average 30 credit hours per year to graduate with the required 120 credit hours in 4 years.

-Course options are listed in order of priority for the given year. These courses are required, but flexibility exists as to when to take the take courses listed as options.

-For a list of Ethos courses and requirements, see Ethos in the bulletin; PG# corresponds to the course categories in Ethos.

-Two Upper level electives are required for the BS Biochemistry major which may be chosen from BIOL3321 (Microbiology), BIOL3322 (Immunology), BIOL3370 (Toxicology), BIOL3372 (Molecular Biology), BIOL3373 (Genetics), BIOL3374 (Cell Physiology), BIOL3376 (Virology), CHEM2251 (Analytical Analysis), CHEM4451 (Instrumental Analysis) CHEM3331 (Inorganic Chemistry) or PSYC4465 (Biopsychology).