

ISU Pre-Vet REQUIRED UNDERGRADUATE COURSEWORK & ISU MICROBIOLOGY Program

Course and Title	Required credits	ISU Course Equivalent
English Composition One year of composition or writing emphasis courses. May include business or technical writing. Bachelor's degree counts for one-half of this requirement.	6 cr	English 150, 250 and English 302, 309, 312, or 314
Oral Communication May include public speaking, interpersonal communication, group or speaking emphasis courses.	3 cr	Speech Communication 212
General Chemistry* One year series (2 semesters) for biological science majors with one semester lab.	7 cr	Chemistry 177, 177L, and 178
Organic Chemistry* One semester with lab.	4 cr	Chemistry 331, 331L
Biochemistry* One semester (no lab required) Upper level course.	3 cr	BBMB 301 or BBMB 316 or BBMB 404
Physics* First semester of a two-semester series with lab is recommended. Must include mechanics, fluids, heat and thermodynamics, vibrations, waves and sound.	4 cr	Physics 131 & 131 Lab Physics 132 & 132 Lab
General Biology* One year series with lab each semester, both cellular and organismal biology. (Micro 115 is not accepted as a substitute for Bio 211Lab.)	8 cr	Biology 211, 211L, 212 and 212L
Genetics* Mendelian and/or molecular genetics. (no lab required) A general genetics course is preferred, but animal breeding or livestock improvement courses will be accepted.	3 cr	Biology 313 or Genetics 320 or Animal Science 352
Anatomy and/or Physiology*** (no lab required) Upper level comparative anatomy or physiology or upper level vertebrate anatomy or physiology is recommended over combined course.	3 cr	Biology 335,351 or BMS 329, 547X, 538 or Animal Science 214
Humanities and/or Social Sciences (Excluding music lessons, art courses, foreign language)	6 cr	Social Sciences, Humanities & Ethics requirements
Electives	8 cr	

* Yellow highlight indicates courses that are part of the Microbiology BS program

*** Anatomy & Physiology is the only course not required for a BS in Microbiology

updated 1/23/2023