UNIVERSITY STUDIES - BS, BIOMEDICAL SCIENCES CONCENTRATION

The College of Veterinary Medicine and Biomedical Sciences offers a Bachelor of Science in University Studies degree with a concentration in biomedical sciences.

Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Semester Credit Hours</th>
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<tbody>
<tr>
<td>BIMS 320/</td>
<td>Biomedical Genetics</td>
<td>3</td>
</tr>
<tr>
<td>GENE 320</td>
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<tr>
<td>BIMS 421/</td>
<td>Advanced Human Genetics</td>
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<tr>
<td>GENE 421</td>
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<tr>
<td>VIBS 310</td>
<td>Biomedical Writing</td>
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<td>VIBS 311</td>
<td>Biomedical Explorations through Narrative</td>
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<tr>
<td>VIBS 432</td>
<td>Public Health Practices</td>
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<tr>
<td>VIBS 443</td>
<td>Biology of Mammalian Cells and Tissues</td>
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<tr>
<td>VTPB 409</td>
<td>Introduction to Immunology</td>
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<tr>
<td>VTPB 487/</td>
<td>Biomedical Parasitology</td>
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<tr>
<td>BIOL 487</td>
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<tr>
<td>VTPB 405</td>
<td>Biomedical Microbiology</td>
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<td>VTPP 323</td>
<td>Animal Physiology</td>
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<td>CHEM 101</td>
<td>Fundamentals of Chemistry I</td>
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<td>&amp; CHEM 111</td>
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<td>CHEM 102</td>
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<td>&amp; CHEM 112</td>
<td>and Fundamentals of Chemistry Laboratory II</td>
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<td>CHEM 227</td>
<td>Organic Chemistry I</td>
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<td>BIMS Directed Electives</td>
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<tr>
<td>ANSC 107</td>
<td>General Animal Science</td>
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<td>ANSC 108</td>
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<td>ANSC 210</td>
<td>Companion Animal Science</td>
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<tr>
<td>ANSC 303/</td>
<td>Principles of Animal Nutrition</td>
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<td>NUTR 303</td>
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<tr>
<td>ANSC 318</td>
<td>Feeds and Feeding</td>
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<tr>
<td>ANSC 320</td>
<td>Animal Nutrition and Feeding</td>
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<tr>
<td>BICH 412</td>
<td>Biochemistry Laboratory I</td>
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<td>BICH 414</td>
<td>Biochemical Techniques I</td>
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<td>BIMS 110</td>
<td>One Health in Action</td>
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<td>BIMS 201</td>
<td>Introduction to Phenotypic Expression in the Context of Human Medicine</td>
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<td>BIMS 289</td>
<td>Special Topics in...</td>
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<tr>
<td>BIMS 291</td>
<td>Research</td>
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<tr>
<td>BIMS 392</td>
<td>Cooperative Education in Biomedical Science</td>
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BIMS 405/ GENE 405 Mammalian Genetics
BIMS 421/ GENE 421 Advanced Human Genetics
BIMS 452/ GENE 452 Modifying Mammalian Genomes for Biomedical Research
BIMS 481/ GENE 452 Seminar in Biomedical Science
BIMS 484/ GENE 484 Biomedical Science Field Experience
BIMS 485 Directed Studies
BIMS 489 Special Topics in...
BIMS 491 Research
ENTO 208 Veterinary Entomology
ENTO 210 Global Public Health Entomology
ENTO 423 Medical Entomology
ENTO 431/ FIVS 431 The Science of Forensic Entomology & Applied Forensic Entomology
FSTC 326/ DASC 326 Food Bacteriology
FSTC 327/ DASC 327 Food Bacteriology Lab
GENE 421/ Advanced Human Genetics
BIMS 421
GENE 431/ Molecular Genetics
BICH 431
GENE 432/ Laboratory in Molecular Genetics
BICH 432
GENE 450 Recombinant DNA and Biotechnology
NUTR 222 Nutrition for Health and Health Care
URPN 370 Health Systems Planning
VIBS 204 Fundamentals of Food Toxicology and Safety
VIBS 277/ NRSC 277 Introduction to Neuroscience
VIBS 310 Biomedical Writing
VIBS 311 Biomedical Explorations through Narrative
VIBS 343 Histology
VIBS 401 Developmental Neurotoxicology
VIBS 404 Food Toxicology and Safety
VIBS 411 Tumor Cell Biology and Carcinogenesis
VIBS 413 Introduction to Epidemiology
VIBS 420 Computer Applications in Public Health Research
VIBS 432 Public Health Practices
VIBS 443 Biology of Mammalian Cells and Tissues
VIBS 450/ NRSC 450 Mammalian Functional Neuroanatomy
VTPB 301/ WFSC 327 Wildlife Diseases
University Studies - BS, Biomedical Sciences Concentration

VTPB 303 Medical Communication in the International Community
VTPB 334 Poultry Diseases
VTPB 408 Clinical Microbiology
VTPB 409 Introduction to Immunology
VTPB 410 Cell Mechanisms of Disease
VTPB 412 Techniques of Clinical Pathology
VTPB 415 Immunogenetics and Comparative Immunology
VTPB 421 Infectious Diseases of Humans and Animals
VTPB 438 Biomedical Virology
VTPB 452 Clinical Veterinary Mycology
VTPB 454/ MARB 454 Ornamental Fish Health
VTP 487/ BIOL 487 Biomedical Parasitology
VTP 424/ Biomedical Neuroendocrinology
VIBS 424 and Endocrine Disorders
VTP 401 History of Human and Veterinary Medicine in Europe
VTP 425 Pharmacology
VTP 427 Biomedical Physiology II
VTP 429 Introduction to Toxicology
VTP 438 Analysis of Genomic Signals
WFSC 327/ Wildlife Diseases
VTP 301

University and College Requirements

Communication (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#communication) 6
Mathematics (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#mathematics) 3
Mathematics Elective 3
Select one of the following:
MATH 131 Mathematical Concepts—Calculus
MATH 142 Business Calculus
MATH 151 Engineering Mathematics I
MATH 171 Analytic Geometry and Calculus
BIOL 111 Introductory Biology I 4
BIOL 112 Introductory Biology II 4
CHEM 237 Organic Chemistry Laboratory 1
Language, philosophy and culture (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture) 3
Creative Arts (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts) 3
Social and behavioral sciences (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#social-behavioral-sciences) 3
American history (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history) 2
POLS 206 American National Government 2 3
POLS 207 State and Local Government 2 3

Remaining Coursework 3
General electives 4 2-8
Minor 1 15-18
Minor 2 15-18

Total Semester Credit Hours 120

1 Up to 4 course hours may be selected from BIMS 484, BIMS 485, VIBS 285, VIBS 485, VIBS 489; VLCS 485; VSCS 485; VTP 285, VTP 485, VTPB 489, VTPPP 285, VTPPP 481, VTPPP 485, VTPPP 489.
2 Completion of four semesters of upper-level ROTC may be substituted for 3 hours of American history and 3 hours of political science.
3 Includes 30-36 hours used to satisfy the two minor requirements and 2 to 8 hours of general electives.
4 Select 2 to 8 hours of any 100-499 course not used elsewhere.