

ACCELERATED B.S./DVM for ANIMAL SCIENCE MAJORS
"Three Plus One" Advising Guide
For students admitted early to NCSU's College of Veterinary Medicine
B.S. in Animal Science, Science Concentration (SAS)***
 Department of Animal Science, North Carolina State University, Raleigh, NC 27695-7621

	Credits
FRESHMAN YEAR - Fall Semester	
ALS 103 Introductory Topics in Agriculture and Life Sciences	1
ANS 150 Introduction to Animal Science** and ANS 151 Intro to Animal Science lab	4
BIO 181 Introductory Biology: Ecology, Evolution, and Biodiversity (and lab)	4
ENG 101 Academic Writing and Research **	4
MA 107 Precalculus I**	3
<i>Total</i>	16
FRESHMAN YEAR - Spring Semester	
CH 101 Chemistry - A Molecular Science** and CH 102 General Chemistry Laboratory	4
ANS 205 Physiology of Domestic Animals and ANS 206 Anatomy of Domestic Animals lab	4
MA 121 Elements of Calculus <u>or</u> MA 131 Calculus for Life & Mgt Sciences A	3
BIO 183 Introductory Biology: Cellular and Molecular. Biology (and lab)	4
Physical Education Elective	1
<i>Total</i>	16
SUMMER AFTER FRESHMAN YEAR Note: earning veterinary experience is important	
CH 201 Chemistry - A Quantitative Science and CH 202 Quantitative Chemistry Lab	4
<i>Total</i>	4
SOPHOMORE YEAR - Fall Semester	
ANS 220 Reproduction and Lactation in Domestic Animals and ANS 221 Repro lab	4
ARE 201 Intro to Ag & Resource Economics <u>or</u> EC 205 Fundamentals of Economics	3
CH 221 Organic Chemistry I and CH 222 Organic Chemistry I lab	4
Communication Elective ³	3
Humanities/Social Science/Interdisc. Perspectives GEP Elective from list ^{2,8}	3
<i>Total</i>	17
SOPHOMORE YEAR - Spring Semester Note: Take the Graduate Record Exam	
ANS 230 Nutrition of Domestic Animals and ANS 231 Nutrition lab	4
CH 223 Organic Chemistry II and CH 224 Organic Chemistry II lab	4
ST 311 Introduction to Statistics or ST(BUS) 350 Economics and Business Statistics	3
Humanities/Social Science/Interdisc. Perspectives GEP Elective from list ^{2,8}	3
Humanities/Social Science/Interdisc. Perspectives GEP Elective from list ^{2,8}	3
<i>Total</i>	17
SUMMER AFTER SOPHOMORE YEAR Note: earning veterinary experience is important	
Humanities/Social Science/Interdisc. Perspectives GEP Elective from list ^{2,8}	6
<i>Total</i>	6
JUNIOR YEAR - Fall Semester Note: Apply to vet school (must meet all criteria)	
Animal Management course (and lab) ⁷	3
BCH 351 Principles of Biochemistry ⁵	4
MB 351 General Microbiology and MB 352 Microbiology Lab	4
PY 211 College Physics I (and lab)	4
Free Elective (can be credits from summer veterinary experience as ANS 492)	3
<i>Total</i>	18

JUNIOR YEAR - Spring Semester (Note: If not admitted to vet school, may wish to re-take GRE)

Note: A maximum of two vet-school required courses can be pending for this semester.

Animal Science Course ⁴	3
GN 311 Principles of Genetics ⁹	4
PY 212 College Physics II (and lab)	4
Physical Education Elective ¹	1
Humanities/Social Science/Interdisc. Perspectives GEP Elective from list ^{2,8}	3
Total	15

NCSU VET SCHOOL YEAR 1 - Fall Semester

VMB 913 Veterinary Physiology I (to count as Animal Science Discipline course)	5
VMP 916 Health Maintenance and Animal Production I (An. Sci. elective)	1
Other vet school courses	
Total to count toward SAS degree	6

NCSU VET SCHOOL YEAR 1 - Spring Semester

VMB 923 Veterinary Physiology II (to count as Animal Science Discipline course)	5
VMP 916 Health Maintenance and Animal Production I (An. Sci. elective)	1
Other vet school courses	
Total to count toward SAS degree	6

The student receives the B.S. in Animal Science degree at the successful conclusion of the first year in vet school (Spring Semester). **Note:** The 12 credits of vet school courses are considered to be transfer courses and must be completed with a C-minus or higher. The rule is that 30 of the student's final 45 credit hours for the B.S. degree must be non-transfer courses (in other words, courses taken from NCSU exclusive of the vet school courses). Courses taken through the undergraduate National Student Exchange program are also considered to be transfer courses, as are Study Abroad courses not offered by NCSU (some Study Abroad summer trips earn NCSU credit). Because 12 credits of vet school courses are "transferring" back to complete the B.S. degree, the maximum number of transfer credits the student can take during the last 33 undergraduate hours (45 minus the 12 credits from vet school) is 3 hours of transfer credit. That means National Student exchange or any other transfer courses would need to be completed prior to the start of the fall semester of the student's junior year (for a student who takes 33 credits during the junior year).

If the student is not admitted to vet school at the end of the Junior year:**SENIOR YEAR - Fall Semester** **Note: Apply to vet school if desired** (must meet all criteria)

Animal Science Discipline courses ⁶	6
Animal Science Course ⁴	2
Free Electives	4
Total	12

This student receives the B.S. in Animal Science degree in December of the Senior year

Alternative: The student who is not admitted to vet school as a Junior and who has a 3.5 or higher GPA could apply for the **Accelerated Bachelor's/Master's degree** if he or she were interested in doing so. The 12 credit hours listed above for the Senior year would need to be at the 500-level, and the student would need to earn a B (not B-minus) or higher grade in each course in order for the 12 credits to count toward both the B.S. and Master of Animal Science degrees. See the information under Curricula and Courses at: http://www.cals.ncsu.edu/an_sci/home/teaching.htm

Minimum Credit Hours Required for B.S. degree in Animal Science: 121

Footnotes:

- ** ANS 150, MA 107, ENG 101, and CH 101 must be completed with a grade of C-minus or higher, and the student should repeat the course in the semester following the initial attempt if less than a C-minus is earned.
- *** Use of animals and animal specimens is critical to our educational program. To obtain full credit for Animal Science courses, students are required to participate in laboratory procedures involving animals and animal specimens. All activities with live animals are IACUC (Institutional Animal Care and Use Committee) approved. Many lectures also incorporate animals or animal specimens into the course.
- ¹ PE 100 Series Fitness & Wellness course and one additional credit of a PE activity course are required.
- ² These courses must be selected from the **approved General Education Program (GEP) lists** as follows: 6 credits from Humanities (from two different lists), 3 credits from Social Sciences, and 3 credits may be from any courses in the aforementioned categories or the Additional Breadth list. Students must also take at least 5 credits from Interdisciplinary Perspectives. While taking these courses, at least one needs to fulfill the U.S. Diversity co-requisite requirement and one must fulfill the Global Knowledge co-requisite. This list is updated on a regular basis; check online at: <http://oucc.ncsu.edu/gep-courses>
- ³ Choose COM 110, COM 112, or COM 211 to meet this requirement as well as the vet school's requirement.
- ⁴ VMP 420 or any Animal Science (ANS) course (except ANS 225, ANS 301, ANS 480, ANS 492, ANS 493) that is not fulfilling another requirement can fulfill this Animal Science Elective category.
- ⁵ BCH 351 (General Biochemistry) fulfills a CALS A,B,C elective category and meets the vet school requirement. Many graduate schools also require Biochemistry. Students who do not plan to apply to vet school or graduate school may take any courses from the College of Agriculture and Life Sciences Group A, Group B, or Group C electives (<http://harvest.cals.ncsu.edu/index.cfm?showpage=268> (and pages 269 - 271)).
- ⁶ Total of 6 credit hours is required from the following approved Animal Science Discipline Courses (each course = 3 credit hours): ANS(NTR, PO) 415, Comparative Nutrition; ANS(NTR) 419, Human Nutrition in Health and Disease; ANS 440, Selection of Domestic Animals; ANS 452, Advanced Reproductive Physiology and Biotechnology; ANS 453, Growth & Development of Domestic Animals; ANS 454, Lactation, Milk, and Nutrition; VMP 420, Diseases of Farm Animals; or any 500-level ANS course.
- ⁷ Students must select at least one animal management course from the following list: ANS 400, Companion Animal Management; ANS 402, Beef Cattle Management; ANS 403, Swine Management; ANS 404, Dairy Cattle Management; ANS 408, Small Ruminant Management; ANS 410, Equine Management; or ANS 411, Management of Growing and Performance Horses.
- ⁸ Students are encouraged to take an Ethics course as part of their Humanities & Social Sci or Free Elec.
- ⁹ GN 311(Principles of Genetics - formerly numbered GN 411) fulfills a CALS A,B,C elective category and meets the vet school requirement. Students who do not plan to apply to vet school may take ANS 215 (Basic Ag Genetics) in place of GN 311.

Foreign Language Requirement All students are required to demonstrate proficiency in a foreign language at the FL_102 level. Proficiency may be demonstrated in any one of the following ways:

1. Two years of the same foreign language in high school with a "C" or higher in each of the two years;
2. Advanced Placement (AP) credit or Transfer Credit for FL_102;
3. Proficiency at the FL_102 level based on the NCSU Foreign Language Placement Exam.

All students not meeting the above proficiency requirements will be required to successfully complete through the FL_102 level at N.C. State University, and it must be taken for a letter grade. Foreign Language 101 credit hours will not count toward graduation unless it is for a language other than the one the student is earning proficiency in.