

**ANIMAL SCIENCES (067E)
PREVETERINARY MEDICINE AND RESEARCH OPTION CHECKLIST**

Please use the following checklist to review your courses but also check on Degree Navigator to ensure all categories are "checked" off. Please contact Dr. Aparna Zama (zama@sebs.rutgers.edu; 848-932-8495), if you have any questions.

R1, R2, R4, and R10 are common to ALL Animal Science Options. R3, R5, R6, R7, R8, R9, and R11 are specific to the Prevet Medicine and Research option.

R1: General Biology (3 courses; 8-10 credits)		Completed
01:119:115	General Biology I (4 cr)	
01:119:116	General Biology II (4 cr)	
01:119:117	Biological Research Lab (2 cr)	
OR		
01:119:101	General Biology (4 cr)	
01:119:102	General Biology (4 cr)	

R2: General Chemistry (3 courses; 9 credits)		Completed
01:160:161	General Chemistry I (4 cr)	
01:160:162	General Chemistry II (4 cr)	
01:160:171	Introduction to Experimentation (1 cr)	

R3: Organic Chemistry (3 courses; 10 credits)		Completed
01:160:307	Organic Chemistry I (4 cr)	
01:160:308	Organic Chemistry II (4 cr)	
01:160:311	Organic Chemistry Laboratory (2 cr)	

R4: Proficiency in Animal Sciences (6 courses; 16-17 credits)		Completed
11:067:142	Animal Science (3 cr)	
11:067:300	Integrative Physiology (4 cr) OR 01:146:356 Systems Physiology (3 cr)	
11:067:327	Animal Reproduction (3 cr)	
11:067:330	Animal Nutrition (3 cr)	
11:067:331	Animal Nutrition Lab (1 cr)	
11:067:328	Animal Genetics (3 cr) OR 01:447:380 Genetics (4 cr)	

R5: Preveterinary Medicine and Research Requirements (4 courses; 14 credits)		Completed
11:680:390	General Microbiology (4 cr) OR 01:447:390 General Microbiology (4 cr)	
01:960:401	Basic Statistics for Research (3 cr)	
11:115:403	General Biochemistry (4 cr) AND 11:115:404 General Biochemistry (4 cr)	
OR		
01:694:407	Molecular Biology and Biochemistry (3 cr) AND 01:694:408 Mol Bio and Biochem (3 cr)	

R6: Calculus (1 course; 4 credits)		Completed
01:640:135	Calculus I for the Life and Social Sciences (4 cr)	
OR		
01:640:151	Calculus for Mathematical and Physical Sciences (4 cr)	

R7: Physics I (4 credits)		Completed
01:750:193	Physics for the Sciences (4 cr)	
OR		
01:750:203	General Physics (3 cr) AND 01:750:205 General Physics I Laboratory (1 cr)	
OR		
01:750:201	Extended General Physics I (5 cr)	

R8: Physics II (4 credits)		Completed
01:750:194	Physics for the Sciences (4 cr)	
OR		
01:750:204	General Physics (3 cr) AND 01:750:206 General Physics I Laboratory (1 cr)	
OR		
01:750:202	Extended General Physics (5 cr)	

R9: Preveterinary Medicine and Research Electives (3-4 courses)		Completed
01:146:322	Human Histology (4 cr)	
01:146:474	Immunology (3 cr)	
01:640:136	Calculus II for the Life and Social Sciences (4 cr)	
11:067:390	Equine Nutrition (3 cr)	
11:067:391	Comparative Mammalian Anatomy (3 cr)	
11:067:398	Advanced Equine Health Care & Management (3 cr)	
11:067:404	Animal Diseases (3 cr)	
11:067:410	Neuroendocrinology (3 cr)	
11:067:416	<i>In Vivo</i> Lab Animal Techniques (3 cr)	
11:067:430	Animal Microtechniques and Tissue Culture (4 cr)	
11:067:450	Endocrinology (4 cr)	
11:067:490	Pathophysiology (3 cr)	
11:067:491	Reproductive and Developmental Toxicology (3 cr)	
11:067:492	Molecular and Cellular Physiology (3 cr)	
11:126:481	Molecular Genetics (3 cr) AND 011:126:482 Molecular Genetics Lab (4 cr)	
11:370:406	Medical and Veterinary Entomology (3 cr)	
**Courses are subject to change as courses are added or dropped. THIS IS NOT A COMPLETE LIST!		

R10: Experience-Based Education (7 credits)		Completed
11:067:175	Animal Handling, Fitting and Exhibition (1 cr)	
11:067:176	Animal Handling, Fitting and Exhibition Supervisor (1 cr)	
11:067:201	Cattle Practicum (2 cr)	
11:067:202	Small Ruminant Practicum (2 cr)	
11:067:203	Swine Practicum (2 cr)	
11:067:205	Laboratory Animal Practicum (2 cr)	
11:067:207	Horse Practicum (2 cr)	
11:067:411	Studies in Animal Science (1-4 cr)	
11:067:414	Teaching in Animal Science (1-3 cr)	
11:067:415	Leadership in Animal Science (1-2 cr)	
11:067:416	<i>In Vivo</i> Lab Animal Techniques (3 cr)	
11:067:493/494	Research in Animal Science (1-6 cr)	
11:554:487/488	GH Cook Honors Program (6-12 cr)	
11:902:300/301	SEBS Internship I/II (3 cr or 6 cr)	

R11: Advisor-Approved Electives (6 credits)		Completed
11:067:101	Careers in Animal Science (3 cr)	
11:067:250	Companion Animal Science (3 cr)	
11:067:275	Laboratory Animal Science: Management and Techniques (3 cr)	
11:067:322	Dairy Cattle Artificial Insemination (1 cr)	
11:067:336	Livestock Production and Management II (3 cr)	
11:067:384	Horse Management (3 cr)	
11:067:413	Developing Future Leaders for the Equine Industry (1 cr)	
11:067:460	Animals and the Law (3 cr)	
**Please see your Academic Advisor for additional Advisor-Approved Electives. THIS IS NOT A COMPLETE LIST!		