### Veterinary System Biology and Medical Science I

**Course Code:** VM 200  
**Title:** Veterinary Systems Biology and Medical Science I  
**Description:** Multidisciplinary approach to the musculoskeletal system of animals. Integration of anatomy, physiology, pathophysiology, pharmacology, and nursing care related to health and disease. 

**Credits:** 3(5-4)  
**Prerequisites:** VM 101 and VM 201  
**Restrictions:** Open only to Veterinary Technology majors.

### Veterinary System Biology and Medical Science II

**Course Code:** VM 201  
**Title:** Veterinary Systems Biology and Medical Science II  
**Description:** Multidisciplinary approach to the hematopoietic and cardiovascular systems of animals. Integration of anatomy, physiology, pathophysiology, pharmacology, and nursing care related to health and disease. 

**Credits:** 3(5-4)  
**Prerequisites:** VM 101 and VM 201  
**Restrictions:** Open only to Veterinary Technology majors.

### Veterinary System Biology and Medical Science III

**Course Code:** VM 300  
**Title:** Veterinary System Biology and Medical Science III  
**Description:** Multidisciplinary approach to the neurologic and endocrine systems of animals. Integration of anatomy, physiology, pathophysiology, pharmacology, and nursing care related to health and disease. 

**Credits:** 3(5-4)  
**Prerequisites:** VM 200 and VM 201  
**Restrictions:** Open only to Veterinary Technology majors.

### Veterinary System Biology and Medical Science IV

**Course Code:** VM 301  
**Title:** Veterinary System Biology and Medical Science IV  
**Description:** Multidisciplinary approach to the urinogenital and endocrine systems of animals. Integration of anatomy, physiology, pathophysiology, pharmacology, and nursing care related to health and disease. 

**Credits:** 3(5-4)  
**Prerequisites:** VM 200 and VM 201  
**Restrictions:** Open only to Veterinary Technology majors.

### Veterinary System Biology and Medical Science V

**Course Code:** VM 302  
**Title:** Veterinary System Biology and Medical Science V  
**Description:** Multidisciplinary approach to the gastrointestinal and integumentary systems of animals. Integration of anatomy, physiology, pathophysiology, pharmacology, and nursing care related to health and disease. 

**Credits:** 3(5-4)  
**Prerequisites:** VM 300 and VM 301  
**Restrictions:** Open only to Veterinary Technology majors.
462 Veterinary Technology Clerkship in Advanced Equine Medicine and Surgery
Fall, Spring, Summer. 3 credits. P:M: (VM 414) R: Open only to Veterinary Technology majors.
Application of principles and techniques in equine medicine and surgery.

470 Veterinary Technology Clerkship in Food Animal Medicine
Fall, Spring, Summer. 3 credits. P:M: (VM 302 and VM 303 and VM 304) R: Open only to Veterinary Technology majors.
Application of principles and techniques in food animal medicine.

471 Veterinary Technology Clerkship in Production Medicine
Fall, Spring, Summer. 3 credits. P:M: (VM 470) R: Open only to Veterinary Technology majors.
Application of principles and techniques in production medicine.

472 Veterinary Technology Clerkship in Food Animal Anesthesiology
Fall, Spring, Summer. 3 credits. P:M: (VM 410 and VM 470) R: Open only to Veterinary Technology majors.
Application of principles and techniques in food animal anesthesiology.

480 Veterinary Technology Clerkship in Clinical Pathology
Fall, Spring, Summer. 3 credits. P:M: (VM 302 and VM 303 and VM 304) R: Open only to Veterinary Technology majors.
Application of principles and techniques in clinical pathology.

481 Veterinary Technology Clerkship in Microbiology
Fall, Spring, Summer. 3 credits. P:M: (VM 302 and VM 303 and VM 304) R: Open only to Veterinary Technology majors.
Application of principles and techniques in microbiology.

482 Veterinary Technology Clerkship in Necropsy
Fall, Spring, Summer. 3 credits. P:M: (VM 302 and VM 303 and VM 304) R: Open only to Veterinary Technology majors.
Application of principles and techniques in postmortem examination of common domestic species with emphasis on specimen description, collection, and submission.

483 Veterinary Technology Clerkship in Biomedical Research
Fall, Spring, Summer. 3 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course. P:M: (VM 400) R: Open only to Veterinary Technology majors.
Application of principles and techniques in biomedical research involving laboratory animals.

484 Veterinary Technology Clerkship in Zoo and Wildlife Medicine
Fall, Spring, Summer. 3 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course. P:M: (VM 410 and VM 414 and VM 411 and VM 412 and VM 413) R: Open only to Veterinary Technology majors.
Application of principles and techniques in zoo and wildlife medicine.

485 Veterinary Technology Clerkship in Special Problems
Fall, Spring, Summer. 3 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course. P:M: (VM 302) R: Open only to senior students in the Veterinary Technology major.
Application of principles and techniques in experimental, therapeutic, or laboratory medicine.

511 Veterinary Perspectives I
Fall. 2(1-2) R: Open only to graduate-professional students in College of Veterinary Medicine.
Animal handling, restraint, and physical examination.

512 Veterinary Integrative Problem Solving I
Fall. 1(1-0) R: Open only to graduate-professional students in College of Veterinary Medicine.
Integration of subject material from concurrent semester courses.

521 Veterinary Perspectives II
Spring. 2(2-0) R: Open only to graduate-professional students in College of Veterinary Medicine. Not open to students with credit in VM 590.
Veterinary medical history and ethics. Client communication and animal behavior.

522 Veterinary Integrative Problem Solving II
Spring. 3(2-0) R: Open only to graduate-professional students in College of Veterinary Medicine.
Integration of subject material from concurrent and previous semester courses.

532 Veterinary Integrative Problem Solving III
Spring. 3(3-0) R: Completion of semester 2 of the graduate-professional program in the College of Veterinary Medicine.
Integration of subject material from concurrent and previous semester courses.

533 Veterinary Epidemiology
Fall. 3(3-0) RB: Completion of semester 2 of the graduate-professional program in the college of Veterinary Medicine. Not open to students with credit in VM 549.
Basic epidemiology theory and study design. Veterinary descriptive and inferential biostatistics. Production veterinary medicine.

541 Veterinary Perspectives III
Spring. 2(2-0) RB: Completion of semester 2 of the graduate-professional program in the College of Veterinary Medicine. Not open to students with credit in VM 802.
Concepts and principles of veterinary practice management.

542 Veterinary Integrative Problem Solving IV
Spring. 3(2-3) RB: Completion of semester 2 of the graduate-professional program in the College of Veterinary Medicine.
Integration of subject material from concurrent and previous courses.

543 Cardiovascular Diseases
Spring. 2(2-0) RB: Completion of semester 2 of the graduate-professional program in the College of Veterinary Medicine.
Cardiovascular diseases of domestic animals. Pathogenesis, diagnosis, and treatment.

544 Veterinary Public Health
Spring. 2(2-0) RB: Completion of semester 2 of the graduate-professional program in the College of Veterinary Medicine.
Veterinary environmental and occupational and public health. Milk and meat hygiene. Control of zoonotic diseases.

545 Principles of Anesthesia and Surgery
Spring. 4(3-2) RB: Completion of semester 2 of the graduate-professional program in the College of Veterinary Medicine. Not open to students with credit in VM 570 or VM 578.
Administering anesthetic agents. Fundamentals of surgery: sterile technique, tissue handling, suture patterns, wound healing, postoperative care.

546 Musculoskeletal Diseases
Spring. 5(5-0) RB: Completion of semester 2 of the graduate-professional program in the College of Veterinary Medicine. Not open to students with credit in VM 582 or VM 592.

547 Respiratory Diseases
Spring. 2(2-0) RB: Completion of semester 2 of the graduate-professional program in the College of Veterinary Medicine. Not open to students with credit in VM 574.

552 Veterinary Integrative Problem Solving V
Fall. 3(2-3) RB: Completion of semester 4 of the graduate-professional program in the College of Veterinary Medicine.
Integration of subject material from concurrent and previous semester courses.

553 Theriogenology and Urinary Diseases
Fall. 5(4-2) RB: Completion of semester 4 of the graduate-professional program in the College of Veterinary Medicine. Not open to students with credit in VM 560 or VM 580.

554 Hematological, Oncological and Dermatological Diseases
Fall. 3(3-0) RB: Completion of semester 4 of the graduate-professional program in the College of Veterinary Medicine. Not open to students with credit in VM 562 or VM 568.
Hematological, oncological and dermatological diseases of domestic animals. Pathogenesis, clinical presentation, diagnosis and treatment.

555 Neurological and Ophthalmological Diseases
Fall. 3(3-0) RB: Completion of semester 4 of the graduate-professional program in the College of Veterinary Medicine. Not open to students with credit in VM 563 or VM 566.
Neurological and ophthalmological diseases of domestic animals. Pathogenesis, diagnosis, and treatment.

556 Digestive, Metabolic and Endocrinological Diseases
Fall. 5(5-0) RB: Completion of semester 4 of the graduate-professional program in the College of Veterinary Medicine. Not open to students with credit in VM 540 or VM 576 or VM 586.
Digestive, metabolic, and endocrinological diseases of domestic animals. Pathogenesis, diagnosis, and treatment.
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557  Operative Surgery
Fall. 2(1-3) RB: Completion of semester 4 of the graduate-professional program in the College of Veterinary Medicine. Not open to students with credit in VM 578 or VM 588 or VM 596. Soft tissue and orthopedic surgery of domestic animals: preoperative evaluation, surgery, and postoperative care.

611  Veterinary Externship
Fall, Spring, Summer. 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Completion of 5 semesters of the graduate-professional program in the College of Veterinary Medicine. Clinical or research experience in an off-campus setting.

690  Special Problems in Veterinary Medicine
Fall, Spring, Summer. 2 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to graduate-professional students in the College of Veterinary Medicine. Individual study directed by a faculty member on an experimental, theoretical, or applied problem. May involve off campus experience in a preceptorial mode.

810  Food Safety Introduction and Professional Management
Fall, Spring, Summer. 2 to 3 credits. A student may earn a maximum of 3 credits in all enrollments for this course. RB: One year of college level science including one semester of microbiology. R: Open only to students in the Master of Science degree in Food Safety or approval of college. Various food safety topics. Organizational, managerial, leadership and communication skills.

811  Evolution and Ecology of Foodborne Pathogens
Spring. 3 credits. R: Open only to students in the Master of Science degree in Food Safety or approval of college. Evolution of pathogens. Ecology of microbial organisms found in the food chain from introduction through human consumption.

812  Food Safety Toxicology
Spring. 3 credits. R: Open only to students in the Master of Science degree in Food Safety or approval of college. Nature and properties of toxic substances through the food chain. Nature and magnitude of hazards to human health.

813  Special Studies in Food Safety
Spring. 1 to 3 credits. A student may earn a maximum of 3 credits in all enrollments for this course. R: Open only to students in the Master of Science degree in Food Safety or approval of college. Faculty supervised independent study on an experimental, theoretical or applied project. May involve on-campus or off-campus experience.

815  Applied Project in Food Safety
Fall, Spring, Summer. 6 credits. P:M: (VM 810) R: Open only to students in the Master of Science degree in Food Safety or approval of college. Faculty directed student project.

818  The Epidemiology of Zoonotic Diseases
Spring of odd years. 3(3-0) Interdepartmental with Epidemiology. Administered by Department of Epidemiology. RB: (EPI 810) R: Open only to master's students in the Epidemiology major or approval of department. Human susceptibility to diseases of animals. Modes of transmission, surveillance, and strategies for prevention of specific zoonotic diseases.

820  Current Topics in Comparative Medicine and Integrative Biology
Spring. 2(2-0) A student may earn a maximum of 6 credits in all enrollments for this course. RB: Enrollment in graduate-professional program or graduate program in the biomedical sciences. Selected topics in comparative medicine using recently published literature to illustrate concepts. Topics will change with instructor from semester to semester.

828  Food Safety Seminar Series
Fall, Spring. 1(1-0) Interdepartmental with Agriculture and Natural Resources; Natural Science; Social Science. RB: Enrollment in graduate program in related discipline. Selected current topics covering the broad areas of food safety as they relate to production, processing, transport, microbiology, toxicology, and social and human dimensions.

829  Problems in Food Safety
Fall. 1(1-0) Interdepartmental with Agriculture and Natural Resources; Natural Science; Social Science. RB: Enrollment in graduate program in related discipline. In-depth discussion of selected problems in food safety.

899  Master's Thesis Research
Fall, Spring, Summer. 1 to 10 credits. A student may earn a maximum of 18 credits in all enrollments for this course. Masters thesis research.

999  Doctoral Dissertation Research
Fall, Spring, Summer. 1 to 36 credits. A student may earn a maximum of 36 credits in all enrollments for this course. Doctoral dissertation research.

201  Introduction to Women's Studies
Spring, Fall, Summer. 4(4-0) Diversity of women's situations in social, cultural, historical and international contexts. Focus on women as victims of oppression and as agents. Concepts basic to feminist thought: gender systems, patriarchy.

202  Introduction to Contemporary Feminist Theories
Fall. 3(3-0) P:M: (WS 201) RB: Or approval of program. R: Not open to freshmen. Contemporary feminist theories of patriarchy, oppression, liberation, sexuality, and the meaning of "woman." Influences of liberalism, Marxism, Freud. Intersections of sex, race, class, and ethnicity. Theories by women of color.

203  Bibliographic Methods for Women's Studies Research
Fall of odd years. 3(3-0) P:M: Completion of Tier I writing requirement. Women's studies as interdisciplinary knowledge. Bibliographic and reference sources. Library organization of information. Research problems.

204  Lesbian, Bisexual, and Gay Studies: Psychological and Cultural Issues
Spring of odd years. 3(3-0) Interdepartmental with Psychology. Nature, origins, and development of sexual orientation and sexual identity in the context of personality, culture, and society. Multicultural and feminist perspectives on the relationship between sexual orientation and gender, race, class, ethnicity, and religion.

211  Introduction to Gender and Environmental Issues
Spring. 3(3-0) Interdepartmental with Fisheries and Wildlife; Forestry; Environmental Economics and Policy; Resource Development. Administered by Department of Fisheries and Wildlife. R: Not open to freshmen. SA: PRM 211 The concept of gender. Overview of environment and habitat. Historical gender roles in environmental management. Gender-based theoretical perspectives. Case studies on developing and developed countries. Environmental management with emphasis on fisheries, wildlife and wetlands. Women environmental professionals.

225  Women and Language
Fall. 3(3-0) Interdepartmental with Linguistics. Administered by Department of Linguistics and Germanic, Slavic, Asian and African Languages. Women and language in societies around the world. Issues such as status and verbal politeness, importance of names, gender differences in language use, women's multilingualism, sexist language, gendered language development in children.

301  Sexual Violence Against Women and Children: Theory and Response
Spring. 3(3-0) RB: (WS 201 Or WS 202 Or WS 203) R: Not open to freshmen. Sexual violence against women and children from theoretical and applied perspectives. Rape, battering, incest and sexual harassment. Intersection of race, class, gender and violence. Individual and collective strategies to prevent or deter assault, race, class, gender and violence.

302  Jewish Women's Experiences and Writings
Fall of even years. 3(3-0) RB: (WS 201 Or WS 202 Or WS 203) R: Not open to freshmen. Diverse experiences of Jewish women from a multidisciplinary perspective. Gender construction of Jewish and majority women and men. Generations of immigrant Jewish women, Anti-Semitism. Jewish feminism. Political and economic issues.