552. Veterinary Integrative Problem Solving V
Fall, 3(2-3) P: 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, 3(4-2) P: 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) P: 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) P: 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) P: 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.

557. Operative Surgery
Fall, 2(1-3) P: 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 3 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. 1 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.

818. The Epidemiology of Zoonotic Diseases
Spring of odd years. 3(3-0) Interdepartmental with Epidemiology. Administered by Epidemiology. P, 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. SA: HM 818.

WOMEN’S STUDIES

Women’s Studies Program
College of Arts and Letters
College of Social Science

201. Introduction to Women's Studies
Fall, Spring, 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: (WS 201) 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: Completion of Tier I writing requirement.

204. Lesbian, Bisexual, and Gay Studies: Psychological and Cultural Issues
Spring of odd years. 3(3-0) Interdepartmental with Psychology.

211. Introduction to Gender and Environmental Issues
Spring. 3(3-0) Interdepartmental with Fisheries and Wildlife; Forestry; Public Resource Management; Resource Development. Administered by Fisheries and Wildlife. R: Not open to freshmen.

225. Women and Language
Fall. 3(3-0) Interdepartmental with Linguistics. Administered by Linguistics.
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) P: (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.

321. Lesbian Cultures and Identities
Fall of even years. 3(3-0) P: (WS 201) R: Not open to freshmen.

400. Women in Classical Greek Society
Spring of odd years. 3(3-0) Interdepartmental with Classical Studies. Administered by Classical Studies. R: Not open to freshmen or sophomores.
Image, role, and status of women in Greek society as seen through literary sources.

401. Feminist Theory
Spring. 4(4-0) P: (WS 201 and WS 202) R: Not open to freshmen or sophomores.

403. Women and Change in Developing Countries
Spring. 3(3-0) P: (WS 201 Or WS 202 Or WS 203) R: Not open to freshmen or sophomores.
Effects of economic, political, and social change on women in developing countries. Interrelationships of gender, class, race, and nationality.
490. Independent Study
Fall, Spring. 1 to 3 credits. A student may earn a maximum of 8 credits in all enrollments for this course. P: (WS 201 or WS 202 or WS 203) R: Open only to juniors or seniors; approval of program. Individual reading and research on women and gender.

491. Special Topics
Fall, Spring. 3 to 4 credits. A student may earn a maximum of 6 credits in all enrollments for this course. P: (WS 201 or WS 202 or WS 203) R: Open not to freshmen or sophomores. In-depth study of special topic emphasizing women and gender.

492. Women’s Studies Senior Seminar (W)
Spring. 4(4-0) P: (WS 201 and WS 203) and completion of Tier I writing requirement. R: Not open to freshmen or sophomores. Synthesis and elaboration of ideas and perspectives central to women’s studies. Current areas of interest and research in feminist scholarship. Approval of program.

493. Internship
Fall, Spring, Summer. 2 to 4 credits. A student may earn a maximum of 4 credits in all enrollments for this course. P: (WS 201 or WS 202 or WS 203) R: Open not to freshmen or sophomores. Approval of program. Integration of feminist knowledge through work experience related to women’s concerns. Experience in legislative, community, or educational settings.

890. Individual Reading
Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Approval of program. Faculty-supervised graduate level reading in special topics.

ZOOLEGY

111L. Cell and Molecular Biology Laboratory
Fall, Spring. 2(1-3) Interdepartmental with Biological Science, Microbiology, and Botany and Plant Pathology. Administered by Biological Science. P: BS 111 or concurrently. Principles and applications of common techniques used in cell and molecular biology.

141. Introductory Human Genetics
Spring. 3(3-0) R: Not open to students in the Biochemistry or Botany and Plant Pathology or Entomology or Medical Technology or Clinical Laboratory Sciences or Physiology or Zoology or Microbiology or Biological Science-Interdepartmental major or to students in the corresponding Lyman Briggs School coordinate majors or to students in the Lyman Briggs School Biology field of concentration. Not open to students with credit in ZOL 341 or ZOL 344. Inheritance of human traits. Impact of genetic technology on society. Ethical and legal issues. Risks and benefits of genetic technology.

306. Invertebrate Biology
Fall. 4(3-3) P: (BS 110 or LBS 144 or LBS 148H) Systematics, morphology, and natural history of invertebrate animals. Identification of live and preserved specimens. Recognition of selected groups.

309. Laboratory in Behavioral Neuroscience
Fall. 4(2-4) Interdepartmental with Psychology. Administered by Psychology. P: (PSY 209 or ZOL 402) and (PSY 295 or concurrently or STT 201) Theory and laboratory experience in the study of behavioral neuroscience. Focus on relationship among hormones, brain, and behavior.

313. Animal Behavior
Fall. Spring. 3(0-0) P: (BS 110 or LBS 144 or LBS 148H) R: Not open to freshmen. Development, physiological mediation, adaptive significance and evolution of behavior. SA: ZOL 213

316. General Parasitology
Spring. 3(3-0) P: (BS 110 or LBS 144 or LBS 148H) Identification, life history, host-parasite relationships, and epidemiology of protozoan, helminth, acanthocephalan, copepod, and arthropod parasites of animals and humans.

316L. General Parasitology Laboratory
Spring. 10(0-2) P: (ZOL 316 or concurrently) R: Not open to freshmen. Laboratory diagnosis of protozoans, helminths, acanthocephalans, copepods, and arthropods that infect humans and animals. Animal necropsy.

319. Introduction to Earth System Science
Fall. 3(3-0) Interdepartmental with Entomology; Botany and Plant Pathology; Geological Sciences; and Sociology. Administered by Entomology. P: Completion of one course in biological or physical science. Systems approach to Earth as an integration of geochemical, geophysical, biological and social components. Global dynamics at a variety of spatio-temporal scales. Sustainability of the Earth system.

320. Developmental Biology
Fall. 4(3-3) P: (BS 110 or LBS 144 or LBS 148H) and (BS 111 or LBS 145 or LBS 149H) Principles of development, emphasizing vertebrates. Illustrations from morphological and experimental investigations. SA: ZOL 220

328. Comparative Anatomy and Biology of Vertebrates
Spring. 4(3-3) P: (BS 110 or LBS 144 or LBS 148H) and completion of Tier I writing requirement. Comparative morphology and natural history of vertebrates. Dissection of representatives of most vertebrate classes. SA: ZOL 228

341. Fundamental Genetics
Fall, Spring, Summer. 4(4-0) Interdepartmental with Botany and Plant Pathology. P: (BS 111 or LBS 145 or LBS 149H) Principles of heredity in animals, plants and microorganisms. Classical and molecular methods in the study of gene structure, transmission, expression and evolution.