7001 Seminar: Comparative Biomedical Sciences (1) F, S May be taken for a max. of 8 hrs. of credit. Reports and discussions on topics of current interest in various scientific disciplines.

7002 Research Techniques in Comparative Biomedical Sciences (1-4) F, S, Su May be taken for a max. of 8 hrs. of credit when topics vary. Specialized research techniques related to selected scientific disciplines in the department.

7003 Special Topics in Comparative Biomedical Sciences (1-4) F, S, Su May be taken for a max. of 8 hrs. of credit when topics vary. Specialized coverage of a variety of topics related to selected scientific disciplines in the department.

7104 Biomedical Cell and Molecular Biology (3) F, S Prereq.: consent of instructor. Essential concepts of cell and molecular biology; cellular ultrastructure and function; basic genetic mechanisms in normal and transformed cells; methods of gene analysis; proteomics; molecular therapy and molecular approaches to disease diagnosis.

7105 Ultrastructural Cytology (3) S Prereq.: consent of instructor. 2 hrs. lecture; 2 hrs. lab. Fine structure of animal cells and cell products; relationships of ultrastructure to function; interpretation of cytochemical reactions.

7106 Biomedical Electron Microscopy (4) F, S Prereq.: consent of instructor. 1 hr. lecture; 8 hrs. lab. Preparation of tissues including biopsies for transmission and scanning electron microscopy; operation of SEMs, TEMs, and ancillary equipment.

7108 Critical Analysis in Molecular Biology/Medicine (3) F Instruction/participation; formal presentations of research data. Discussion and presentations are drawn from landmark biomedical publications.

7109 Advanced Macroscopic Anatomy (1-3) Prereq.: consent of instructor. May be repeated for credit when topics vary. Specialized dissection of one or more of the following: dog, horse, ruminants, laboratory, exotic, or avian species.

7112 Advanced Microscopic Anatomy (1-3) Prereq.: consent of instructor. May be repeated for credit when topics vary. Comparative or systemic microscopic anatomy of selected organs or organ systems of domestic, laboratory, or exotic species.

7603 Clinical Toxicology (3) S Prereq.: consent of instructor. Pathophysiology of various clinically important toxicants; prevention, diagnosis, and treatment of common intoxications in domestic animals.

7604 Fundamentals of Carcinogenesis (3) F, S Prereq.: CBS 7603 or consent of instructor. Same as BIOL 7622 and ENVS 7622. Identification and chemical structural features of carcinogens; role of free radicals in biology and pathobiology; molecular mechanisms in chemical carcinogenesis, including pathways for metabolic activation, DNA adduction, somatic cell mutagenesis, and oncogene activation.

7627 Mechanisms of Toxicity in Aquatic Animals (4) F-V Prereq.: organic chemistry, biochemistry, and physiology recommended. Examination of mechanisms of contaminant toxicity in context with the unique physiological, biochemical, and structural features of aquatic animals and the environment.

7628 Biomedical Physiology I (3) F, S Prereq.: consent of instructor. Physiological mechanisms underlying the cardiovascular and gastrointestinal systems of domestic species.

7629 Biomedical Physiology II (3) F, S Prereq.: consent of instructor. Physiological mechanisms underlying the respiratory and renal systems of domestic species; emphasis on system control.

7630 Biomedical Pharmacology (4) F, S Prereq.: vertebrate physiology, biochemistry, or equivalent; consent of instructor. 3.5 hrs. lecture; 0.5 hrs. lab. Comparative study of the pharmacodynamics, disposition, kinetics, and therapeutic utility of drugs in animals.

7631 Biomedical Neuroscience (3) F, S Prereq.: consent of instructor. 2.5 hrs. lecture; 0.5 hrs. lab. Physiological and anatomical mechanisms underlying the nervous system.

7699 Toxicology Seminar (1) Also offered as BIOL 7699, FDSC 7699, CHEM 7699, and ENVS 7699. May be taken for a max. of 4 hrs. credit when topics vary. Reports and discussions on topics of current interest in the discipline of toxicology.