relational development and deterioration; more effective communication.

1400 Political Communication (3) Factors and strategies in contemporary political communication in the U.S.; emphasis on electronic communication, candidates and campaigns, campaign management, speech writing, and advertising; study of recent and current elections.

1401 Organizational Communication (3) Prereq.: CMST 2040. Theories and practices of communication within the organizational setting, as well as how communication relates to the process of organizing; examines relevant theories and strategies.

1407 Communication as Culture (3) Prereq.: CMST 3106, 3107, or 3167. Creation, maintenance, and alteration of cultural norms through values and conventionalized behavior. Examines how mass-mediated spectacle and intimate communication ritual.

1411 Intraperssonal Communication (3) Prereq.: CMST 2010. Examination of mental imagery, imagined interaction, and listening across a variety of contexts.

1412 Health Communication (3) Communication in the health care context; application to pragmatic problems in the healthcare industry; critical examination of health messages in popular culture.

1413 Communication and Leadership in Teams (3) Analysis of communication processes in groups and teams; includes examination of theories and research findings; addresses individual and team participation, leadership, and decision-making strategies.

1414 Contemporary Theories of Communication (3) Current methods and theories of human communication; research into discovery of skills, processes, and consequences of messages and their variations; how messages interact with communicators to produce behavioral outcomes.

1418 Multimedia Communication (3) Prereq.: CMST 1061, 1062, and 3040 or equivalent. May be taken for a max. of 6 hrs. of credit when topics vary. Topics such as "Basic Concepts of Cinema," "Aesthetics of Film and Video," and "Cyberculture Theory."

4971 Special Topics in Communication (3) Prereq.: consent of instructor. See MC 4971.

7900 Introduction to Graduate Study in Communication (3) Required of all master’s students and of doctoral students on advice of their major professors.

7901 Seminar in Pedagogy for the Communication Classroom (1) Information and support for first time college teachers; teaching skills; core teaching values and instructional strategies.

7903 Research Writing in Communication Studies (3) Required of all graduate students in Communication Studies. Professional development seminar for graduate students in Communication Studies. Emphasis on refining research questions and writing skills. Preparation for final project and research proposal. May be taken for a max. of 6 hrs. of credit when topics vary.

7910 Seminar in Interpersonal Communication Theory (3) Prereq.: CMST 4012 or equivalent. May be taken for a max. of 12 hrs. of credit when topics vary. Current theoretical approaches to interpersonal communication, including developmental approaches, cognitive and relational theories.

7913 Seminar in Communication Theory (3) Prereq.: may be taken for a max. of 6 hrs. of credit when topics vary. Foundational and contemporary theories in communication.

7915 Research in Communication Theory (3) Prereq.: CMST 4114 or equivalent. May be taken for a max. of 9 sem. hrs. of credit. Research literature on advanced topics in communication theory.

7923 Seminar in Qualitative Research Methods in Communication Studies (3) May be taken for a max. of 6 sem. hrs. of credit. Qualitative research methods and practical considerations of current methods of qualitative research in the discipline.


7941 Seminar: Studies in the History of Performance (3) Historical development of select western performance practices outside the institution of theatre; methods of historical research in performance studies.

7943 Seminar: Performance and Culture (3) Prereq.: consent of instructor. Esential concepts of culture and interdisciplinary intracctions; the role of performance in the construction and reinforcement of cultural identity and the shaping of cultural practices.

7949 Seminar: Research in Communication Theory (3) Prereq.: CMST 4114 or equivalent. May be taken for a max. of 9 sem. hrs. of credit. Research literature on advanced topics in communication theory.

7952 Seminar in Qualitative Research Methods in Communication Studies (3) May be taken for a max. of 6 sem. hrs. of credit. Qualitative research methods and practical considerations of current methods of qualitative research in the discipline.

7970 Seminar in Pedagogy for the Communication Classroom (1) Information and support for first time college teachers; teaching skills; core teaching values and instructional strategies.

7980 Thesis Research (1-12 per sem.) 12 hrs. for master’s and 18 hrs. for doctoral. Research literature on advanced topics in communication theory.

9900 Dissertation Research (1-12 per sem.) 12 hrs. for master’s and 18 hrs. for doctoral. Research literature on advanced topics in communication theory.

COMPARATIVE BIOMEDICAL SCIENCES

• CBS

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 and biomedical publications.

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 laboratory methods in chemistry, biochemistry, and physiology recommended.

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 laboratory methods in chemistry, biochemistry, and physiology recommended.

1014 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.

1015 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; identification, intracctions, and relationships of cell products for transmission and scanning electron microscopy; operation of SEMs, TEMs, and ancillary equipment.

1016 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.

1018 Critical Analysis in Molecular Biology/Medicine (3) F Instruction/participation; formal presentations of research data. Discussion and presentations are drawn from landmark biomedical publications.

1019 Advanced Macroscopic Anatomy (1-3) Prereq.: consent of instructor. May be repeated for credit when research topics vary. Specialized dissections in the following: dog, horse, ruminants, laboratory, exotic, or avian species.

1021 Advanced Microscopic Anatomy (1-3) Prereq.: consent of instructor. May be repeated for credit when research topics vary. Comparative or systemic microscopic anatomy of selected organs or organ systems of domestic, laboratory, or exotic species.

1063 Clinical Toxicology (3) S Prereq.: consent of instructor. Pathophysiology of various clinically important toxicants; prevention, diagnosis, and treatment of common intoxications in domestic animals.

1714 Central Nervous System (3) V Prereq.: CBS 7631 or equivalent. Neurotransmitter mechanisms, chemistry, and anatomical distribution; neuropharmacology; synaptic physiology and anatomy of selected brain regions; central nervous system diseases.

1715 Pulmonary Pharmacology (3) V Prereq.: CBS 7631 or consent of instructor. Basic pharmacology of the respiratory system; mechanisms of action of various drugs used in respiratory disorders.

1716 Autonomic Nervous System (3) Prereq.: CBS 7631 or equivalent. Structure, physiology, pharmacology, and diseases of the autonomic nervous system.

1722 Fundamentals of Cardiogenesis (3) F,S Prereq.: CBS 7603 or consent of instructor. Same as BIOL 7622 and ENVS 7622. Identification and chemical structural features of cardiogenes; role of free radicals in biology and patho-physiology; molecular mechanism; molecular genetics, including pathways for metabolic activation, DNA adduction, somatic cell mutagenesis, and oncogene activation.

2727 Mechanisms of Toxicity in Aquatic Animals (4) F-V Prereq.: organic chemistry, biochemistry, and physiology recommended. Examination of mechanisms of chemical toxicity in aquatic animals; physiological, biochemical, and structural features of
aquatic animals and the environment.
7628 Biomedical Physiology (1) F,S Prereq.: consent of instructor. Physiological mechanisms underlying the cardiovascular and gastrointestinal systems of domestic species.
7629 Biomedical Pharmacology II (3) F,S Prereq.: consent of instructor. Physiological mechanisms underlying the respiratory and renal systems of domestic species; emphasis on systems of non-native species. Comparative study of the pharmacodynamics, disposition, kinetics, and therapeutic utility of drugs in animals.
7630 Biomedical Pharmacology (4) F,S Prereq.: vertebrate physiology, biochemistry, or equivalent; consent of instructor. Physiological mechanisms underlying the respiratory and renal systems of domestic species; emphasis on systems of non-native species. Comparative study of the pharmacodynamics, disposition, kinetics, and therapeutic utility of drugs in animals.

COMPARATIVE LITERATURE • CPLT

General education courses are marked with stars (*)..

★ 2201 Introduction to World Literary Traditions (3) Also offered as ENGL 2201. Study of the world’s most influential literary traditions from the ancient to the modern world. Comparative study of the literatures of the world, with special emphasis on non-Western traditions, from beginnings to 1650; emphasis on reading and writing about literature.
★ 2202 Introduction to Modern World Literature (3) Also offered as ENGL 2202. Overview of the literature of the world from 1650 to the present day; introduction of the concepts of literary history and literary tradition.
7010 Research Methods and Bibliography (3) Instruction in methods of research; specific projects in bibliography geared toward the comparative literary tradition.
7020 History and Theory of Criticism (3) Historical survey of major works in literary theory from the classical through the modern period designed to ground subsequent work in criticism.
7120 Topics in Theory of Criticism (3) May be taken for a max. of 3 hrs. of credit when topics vary. Study of a particular school of critical thought as it applies to specifically comparative literary scholarship.
7130 Topics in Comparative Literature (3) May be taken for a max. of 9 hrs. of credit when topics vary. Basic techniques of studying a literary topic through the comparative method; examples taken from different national literary traditions.
7140 Topics in the Interdisciplinary Study of Literature (3) May be taken for a max. of 9 hrs. of credit when topics vary. Study of a particular school of critical thought as it applies to specifically comparative literary scholarship.

COMPUTER SCIENCE • CSC

General education courses are marked with stars (*).

1100 Computers in Society (3) Prereq.: credit in MATH 1021 or registration in MATH 1023. 2 hrs. lecture; 2 hrs. lab. Prereq: credit will not be given for this course and CSC 1500 or LID 201 or EKST 2000. Introduction to computers, their applications, and impact on people and social institutions; the Internet; E-mail, news groups, ftp, telnet, World Wide Web, multimedia, word processing, spreadsheets, databases.
1200 Ethics in Computing (1) Prereq.: credit in MATH 1550 or enrollment in Upper Division honors program. Writing and formal defense of a research thesis in computer science. Defense committee of three faculty members must be formed.
3999 Independent Undergraduate Research (1-3) Prereq.: consent of department chair. May be taken for a max. of 4 hrs. of credit. Individual research; conferences, and program development in computer science.
4101 Programming Languages (3) Prereq.: CSC 3102. Principles of programming language design; specification of syntax and semantics; underlying implementation of block structured languages; dynamic memory allocation for strings, lists, and arrays; imperative versus applicative programming; logic programming; modern programming languages.
4103 Operating Systems (3) Prereq.: CSC 3102. Fundamentals of operating system design, process manipulation, deadlock avoidance, memory management, file management, I/O systems, UNIX systems.
4304 Software Systems Development (3) Prereq.: CSC 3102, 3130. Batch process systems programs, their components, operating characteristics, user services and limitations; implementation techniques for interactive systems; operating system management, file system design and management, system accounting, and other user-related services; traffic control, interprocess communication, design of system modules, and interfaces; system updating, documentation, and operation.
4330 Software Systems Development (3) Prereq.: CSC 3102, 3130. Software requirement analysis; software representation, programming methodologies; verification, validation, maintenance, and software planning.
4351 Compiler Construction (3) Prereq.: CSC 3102; or permission of instructor. Design of compiler; program representation, compilation; syntactic and semantic analysis; optimization; dead/loop, memory management, secondary memory management, file system management, IPC processes, interface to operating systems, system architecture, and other user-related services; traffic control, interprocess communication, design of system modules, and interfaces; system updating, documentation, and operation.
4356 Interactive Computer Graphics (3) See ME 4573.
4362 Advanced Compiler Techniques (3) Prereq.: CSC 2252 or 2533. Advanced compiler design techniques, including strategies for improving performance of traditional numerical techniques; emphasis on extrapolation.
4369 Software Modeling Techniques (3) Prereq.: CSC 3370 or 4390. Examination of modern modeling techniques for complex/high quality software including static/dynamic software models and project management models.
4402 Introduction to Database Management Systems (3) Prereq.: CSC 3102. Network, hierarchical, and relational, and entity-relationship models; data definition, manipulation languages, and conversion among these models; relational database design theory, efficient query evaluation, elementary query optimization techniques.
4444 Artificial Intelligence (3) Prereq.: CSC 3102. Theorem proving and inferences techniques, production systems, knowledge representation, reasoning, nonmonotonic reasoning, natural language understanding, scene analysis, planning, game playing, and learning.
4446 Parallel Processing (3) Prereq.: CSC 3102. Theory and per- mission of instructor. Basic concepts of fuzzy sets, fuzzy operations, fuzzy logic, and fuzzy rule-based systems; applications in engineering and decision making; emphasis on systematic methodology to construct fuzzy applications; software and simulation tools in solving real-world problems using fuzzy techniques.
4501 Computer Networks (3) Prereq.: CSC 4103. Introduction to local, metropolitan, and wide area networks using the standard ISO/OSI reference network; introduction to the Internet protocol suite and network tools and programming; discussion of various networking technologies.
4601 Computer and Network Security (3) Prereq.: CSC