Statics, kinematics, and dynamics of systems or particles and rigid bodies; 3260—Lagrangian and Hamiltonian equations of motion. Must be taken in sequence. Prereq: 2320 and Math 2860.

3230 Heat and Thermodynamics (3) Concepts of temperature and heat; laws of thermodynamics; applications of laws to simple physical and chemical problems. Prereq: 2320 or 2230 and calculus; 3210-20 or instructor’s permission.


3510-20-30 Physical Measurements (3, 3, 3) Laboratory measurement of some physical quantities. Theory supplied where necessary. Prereq: 2310-20 or 2210-20-30, and calculus; 3510 for 3520 and 3530. 3 labs.

3610-20 Electronics (3, 3) Electronic components and circuits of interest to physicists. Prereq: 2110-20-30 or 2210-20-30 and calculus. 3 labs.

3630 Nuclear Electronics Laboratory (3) Elementary circuits of interest in nuclear instrumentation are designed and built, and their characteristics are tested as a function of various parameters. Prereq: 3610-20.

3640-50-60 Health Physics Practicum (3, 3, 3) Instrumentation; legal aspects and practice of applied health physics; problem solving; record keeping; and report writing. For students in Health Physics cooperative program.


3990 Junior Seminar (1-3) Topic of current interest. May be repeated for credit with permission of department.


4140 Elementary Nuclear Physics (3) General properties of nuclei, two-nucleon systems, nuclear forces, nuclear models, nuclear reactions, nuclear disintegrations, and beta-decay. Nuclear spin and magnetism. Prereq: 3730 or 4120.

4160 Physical Acoustics (4) Considerations fundamental to detailed investigation of any branch of acoustics; propagation of acoustic waves in the infrasonic, the audible, the ultrasonic, and hypersensitive ranges of frequencies. 3 hrs and 1 lab. Prereq: 3210-20-30.

4210-20-50 Electricity and Magnetism (3, 3, 3) Intermediate level electromatics, steady and alternating currents, laws of electromagnetism; Maxwell’s equations; radiation of electromagnetic waves; reflection and refraction; electromagnetic fields of moving charges. Must be taken in sequence. Prereq: 2320 or 220 and Math 2830.

4230-40 Geometrical and Physical Optics (4, 4) Lectures, problems, and experiments in geometrical (4230) and physical (4240) optics. Prereq: 2250 and calculus. 3 hrs, 1 lab.

4510-20-30 Atomic Physics Laboratory (3, 3, 3) Experiments in: fundamental particle properties, photoelectric conductance of electricity through gases, atomic and molecular spectroscopy, X-ray. Prereq or coreq: 3710-20-30. 3 labs.

4540-50 Experimental Nuclear and Radiation Physics (4, 4) Interaction of charged particles and electromagnetic radiation with matter; theory and characteristics of various detectors; statistics of counting, nuclear properties. Experiments illustrate recent techniques for investigating the nucleus and nuclear radiation. 1 hr. lecture, 6 hrs lab. Prereq: 2330.


4919-28-38-48-58-68-78-88-98 Honors: Research and Independent Study (1 hr each) Designed for excellent undergraduate majors. Provides opportunity for research and independent study with faculty guidance. Special permission of department is required. Maximum credit 9 hrs.

4990 Senior Seminar (1-3) Topic of current interest. May be repeated for credit with permission of department.

GRADUATE

The Master’s Program

General requirements for the Master’s Degree are found in the Graduate School Catalog.

The Doctoral Program

General requirements for the Doctor’s degree are found in the Graduate School Catalog.

5000 Thesis

5080 Graduate Research Participation (3)

5110-20-30 Introduction to Theoretical Physics (3, 3, 3)

5210-20-30 Advanced Modern Physics (3, 3, 3)

5240 Electronic Properties of Solids (3)

5250 Electromagnetic Properties of Solids (3)

5310-30-30 Advanced Dynamics (3, 3, 3)

5310-20-30 Electromagnetic Theory (3, 3, 3)

5440 Experimental Methods of Infrared and Raman Spectroscopy (3)

5460 Radiation Chemistry (3)

5510-20-30 Advanced Thermodynamics and Statistical Mechanics (3, 3, 3)

5610-20-30 Mathematical Methods in Physics (3, 3, 3)

5640 Numerical Methods in Physics (3)

5720 Physics of Polyatomic Molecules (3)

5910-20-30 Special Problems (3, 3, 3)

5911-21-31 Special Problems in Teaching of Physics (1, 1, 1)

5990 Seminar (1-3)

6000 Doctoral Research and Dissertation

6110-20-30 Quantum Mechanics (3, 3, 3)

6210-20-30 Nuclear Structure (3, 3, 3)

6310 Electromagnetic Theory of Light (3)

6320 Special Relativity (3)

6330 General Relativity (3)

6420 Advanced Topics in Classical Theory (3)

6430 Advanced Topics in Quantum Theory (3)

6500-10 Electrical Conduction in Gases and Plasma Physics (3, 3, 3)

6610 Interaction of Electrons with Gases (3)

6620 Interaction of Electrons with Solids (3)

6630 Interaction of Radiation with Matter (3)

6710-20-30 Advanced Solid State Physics (3, 3, 3)

6810 Vibrational Problems in Molecular Spectra (3)

6820 Molecular Vibration-Rotation Theory (3)

political science (801)

Professors: T.D. Uns (Head), Ph.D. Iowa; R.S. Avery, Ph.D. Northwestern; D.H. Carlisle, Ph.D. North Carolina; L.S. Greene (Emeritus), Ph.D. Wisconsin; V.R. Iredell, Ph.D. Chicago; D.D. Nimmo, Ph.D. Vanderbilt; H. Piass, Ph.D. Utah; N.M. Robinson, Ph.D. Syracuse; O.H. Stephens, Jr., Ph.D. Johns Hopkins; D.M. Wellborn, Ph.D. Texas.

Associate Professors: R.B. Cunningham, Ph.D. Indiana; J.W. Dodd, Ph.D. Tulane; A.A. Elliott, Ph.D. Columbia; G.C. Evans, Ph.D. Daniels; A.H. Hopkins, Ph.D. Syracuse; P.S. Kronenberg, Ph.D. Pittsburgh; S.J. Osofsky, Ph.D. Columbia; R.L. Peterson, Ph.D. Yale; T.M. Simpson, III, Ph.D. Johns Hopkins; T.A. Smith, Ph.D. Ohio State.

Assistant Professors: J.A.V. Allen, M.S.W. Michigan; B.P. Greene, Ph.D. Indiana; W. Lyons, Ph.D. Oklahoma; C.P. Mauney, Ph.D. Tennessee; G.J. Rathjen, Ph.D. Michigan State; R.E. Robson, Ph.D. Maryland; B.D. Rogers, Ph.D. Indiana; P.R. Schuman, Ph.D. Johns Hopkins.


Bureau of Public Administration

Professors: T.D. Uns (Director), Ph.D. Iowa; H. Piass (Associate Director), Ph.D. Illinois.

Associate Professor: P.S. Kronenberg (Associate Director, Nashville, Ph.D. Pittsburg.

Assistant Professors: J.A.V. Allen, M.A. Michigan; B.P. Greene, Ph.D. Indiana; R.E. Robson (Assistant Director), Ph.D. Maryland; B.D. Rogers, Ph.D. Indiana.

Instructor: F.R. Insoch, M.A. SUNY.

undergraduate

A Major consists of forty hours that must be distributed as follows:

(1) Eight hours at the 2000 level in political science or in political science courses not used for triad credit but included on the History and Society list.

(2) Thirty-two hours in political science courses numbered at 3000 and above. Upper division courses on the triad list may be included. These thirty-two hours must include at least one course in each of four areas of the discipline: United States
Government and Politics; Public Administration; Comparative Government and Politics; International Relations; and Political Theory and Methodology. A Minor consists of fifteen-hour hours that must be distributed as follows:

1. Eight hours at the 2000 level in political science or in political science courses not used for triad credit but included on the History and Society list.
2. Sixteen hours in political science courses numbered at 3000 and above. Upper division courses on the triad list may be included.

Public Administration. See pages 71 and 169.

American Studies. See Cultural Studies.
Asian Studies. See Cultural Studies.
Latin American Studies. See Cultural Studies.
Russian and East European Studies. See Cultural Studies.

2020 Introduction to Political Science (4) A variety of the basic substantive concepts and concerns of political science.

United States Government and Politics/Public Administration

2510-20 United States Government and Politics (4, 4, 4, 4) 2510-20 Constitution, federalism, separation of powers, campaigns, and elections, parties, interest groups, the media, and public opinion. 2520—Institutions: Executive, legislative, judiciary, and bureaucracy at national, state, and local levels.

2518-28 Honors: United States Government and Politics (4, 4) Honors courses designed for students of superior ability and interest. Entrance into 2518 requires a B average, selected entering freshmen will be accepted on the basis of placement scores and high school record. A grade of B in 2518 is necessary for entrance into 2528.

2530 Tennessee Government and Politics (4)

3545-46 United States Constitutional Law (4, 4) 3545—Analysis of judicial review, constitutional powers of President and Congress, federalism, sources of regulatory, and constitutional protection of political rights. 2510-20 desirable as a preceding course. 3546—Study of civil rights and liberties with emphasis on judicial interpretation of First Amendment rights, freedoms of the accused, racial equality, and the right of privacy.

3555 Minority Group Politics in the United States (4) Course varies from quarter to quarter. May be repeated up to a maximum of 8 hours credit with permission of Department.

3557 Politics and the Environment (4) Examination of formulation and implementation of public policies relating to physical environment with emphasis upon water and air pollution control.

3565 Introduction to Public Administration Organization and Management (4) Organization and decision-making theory, line and staff services, politics of organization, leadership, personnel and fiscal management, administrative responsibility. 2510-20 desirable as preceding course. (Same as Water Resources Development 3585.)

3566 Public Administration and the Policy-Making Process (4) Public bureaucracies and the policy-making process, their political environments, administrative problems associated with policy-making. 2510-20 desirable as preceding courses.

3630 Administration of Government Enterprises (3) Problems of special government enterprises, such as TVA.

4410-20 Administrative Law (3, 3) Power of, procedures of, controls over administrators.

4535-36 Political Attitudes, Opinions and Communication (4, 4) Nature, development, formation and distribution of politically relevant attitudes and opinions; role of leadership, persuasion, and communication in opinion-policy process.


4545-46 The Judicial Process (4, 4) The study of courts as components of political systems, and the role of public policy formulation through judicial decision-making. 2510-20 desirable as preceding course.

4575 Special Topics in United States Government and Politics (4) May be repeated up to a maximum of 8 hours credit with permission of Department.

4580-90 The Urban Politics (4, 4) Analysis of political institutions and processes in metropolitan areas; urban problems and politics.

4610 The Budgetary Process (3) Fiscal planning, budget and expenditure processes in government, their policy and administrative implications.

4620 Public Personnel Administration (3) Development of the merit system in government, career systems, public personnel management functions, organization for personnel management.

4630 Problems in Public Management (3) Selected problems. Emphasis on internal and external communication and information systems in government and public access to information.

4740-59-60 Politics and Elections (3, 3, 3) 4740-59-60—Structure and function of party system; nominations and campaigns. 4780—Voting behavior of the electorate.

4900 Aspects of Urban Environment I (3) Inter-disciplinary course in urban problems. Prereq: Permission of one instructor. (Same as Architecture 4900, Human Services 4900, Psychology 4900, and Real Estate 4900.)

Comparative Government and Politics

3615-16 Dynamics of Black African Politics (4, 4)
3621-22 Politics of Asian States (4, 4)
3625-26 Latin American Government and Politics (4, 4)
3631-32 Government and Politics of the Soviet Union (4, 4)
3635-36 Politics In Western Democracies (4, 4) Political culture, patterns, and institutions of Western democratic systems.
3641-42 Government and Politics of Middle East and North Africa (4, 4)
3655 Political Change in Developing Areas (4) Characteristics and problems of political changes with primary focus on developing areas.
4665-66 Policy-Making in Democracies (4, 4) Comparative approach to theory and process of making public policies.
4675 Special Topics in Comparative Government and Politics (4) May be repeated up to a maximum of 8 hours credit with permission of department.

International Relations

3701-02 Introduction to International Relations (4, 4) 3701—Methodology and background. 3702—Introduction to processes and institutions including war, diplomacy, law and organization.
3705 Contemporary Diplomatic and Military Problems (4) Analysis of current international events.
3710-80 U.S. Foreign Policy Processes (4, 4) Processes whereby U.S. foreign policies are made and implemented, focusing on interaction within federal bureaucracy and roles of the President, Congress, the press, and public opinion.
3715 Contemporary Problems of Soviet Foreign Policy (4)
4711 International Law (4)

Political Theory and Methodology

3801-02-03-04 Studies in Political Thought (4, 4, 4, 4) 3801—Classical Greek and Roman political thought. 3802—From Augustine to Luther: Emphasis on Problems and theories of religion and politics. 3803—Machiavelli through the Enlightenment. 3804—Political theories of industrial and technological societies; 19th and 20th centuries.

4815 Contemporary Soviet Marxism-Leninism (4) Soviet applications of Marxist-Leninist theory.

4831-32-33 The Systematic Study of Politics (4, 4, 4) Scope, methods and procedures of analysis in political science; intended primarily for seniors intending to pursue graduate work and entering graduate students who have not had such a course.

4875 Special Topics in Political Thought (4) May be repeated up to a maximum of 8 hours credit with permission of Department.

Other

4101 Foreign Study (1-16) See page 167.
4102 Off-Campus Study (1-16) See page 167.
4103 Independent Study (1-16) See page 167.
4975 Proseminar in Political Science (4) Selected research for seniors; primarily for majors. May be repeated up to a maximum of 8 hours credit with permission of Department.

GRADUATE

The Master's Program

See requirements in the Graduate School Catalog.

The Doctoral Program

General requirements for the degree of Doctor of Philosophy are described in the Graduate School Catalog.

5000 Thesis
5101 Foreign Study (1-12)
5102 Off-Campus Study (1-12)
5103 Independent Study (1-12)
5110-20 Seminar in World Political Theory (3, 3)
5140 Politics, Administration and Community in Non-metropolitan Areas (3)
5150 Internship in Political Science (3-9)
5210-20-30 Seminar in World Politics (3, 3, 3)
5211 Directed Readings in Political Science (3)
5250 Seminar in African Politics (3)
5270-80-90 Seminar in Politics of Development (3, 3, 3)
5310-20-30 Seminar in Comparative Government (3, 3, 3)
5340-50-60 Seminar in Latin American Government (3, 3, 3)
5370-80 Seminar in Soviet Politics and Government (3, 3)
5410-20-30 Seminar in Public Law (3, 3, 3)
5440-50 Theory and Analysis of U.S. Foreign Policy Processes (4, 4)
Psychology (830)

Professors:
W.H. Calhoun (Head), Ph.D. California (Berkeley);
G.M. Burghardt, Ph.D. Chicago; J.F. Byrne, Ph.D.
Tennessee; E.E. Cureton (Emetius), Ph.D.
Columbia; H.J. Fine, Ph.D. Syracuse; L. Handler,
Ph.D. Michigan State; J.F. Lubar, Ph.D. Chicago;
E.O. Milton (Director, Learning Research
Center), Ph.D. Michigan; K.R. Newton, Ph.D.
Tennessee; H.R. Pollio, Ph.D. Michigan;
J.M. Porter, Ph.D. Yale; N.L. Rasch, Ph.D.
Pennsylvania; F. Samejima, Ph.D. Kejo (Japan);
R.R. Shieder, Ph.D. Tennessee; W.S. Verplanck,
Ph.D. Brown; R.G. Wahler, Ph.D. Washington;
J.A. Wiberly, Ph.D. Syracuse.

Associate Professors:
H.S. Bacon, Ph.D. Tennessee; C.P. Cohen,
Ph.D. Kansas; L.F. Droppleman, Ph.D. Catholic;
H.R. Friedman, Ph.D. Tennessee; S.J. Hanel,
Ph.D. Hopkins; M.S. Johnson, 30;
Johns Hopkins; A. McIntyre, Ph.D. Yale;
W.G. Morgan, Jr., Ph.D. Tennessee;
W.M. Simmons, M.S.S.W. Tennessee.

Assistant Professors:
E.J. Fisher, Ph.D. Tennessee; A.M. Ford, Ph.D.
Michigan State; W.R. Hammond, Ph.D. Florida
State; H.P. Kaufman, Ed. Rutgers; J.E. Lawler,
Ph.D. North Carolina; K.A. Lawler, Ph.D. North
Carolina; J.W. Lounsbery, Ph.D. Michigan State;
K.R. Lounsbery, Ph.D. Michigan State; B.F. Lyons,
Ph.D. Texas; J.C. Malone, Ph.D. Duke;
E.D. Sundstrom, Ph.D. Utah; P.H. Todd, Ph.D.
California (Berkeley); C.L. Travis, Ph.D.
California (Davis).

UNDERGRADUATE

Major: (Concentration in General Psychology) Designed to give students a broad and current background in the science and application of psychological methods and principles. It is particularly suited for students who plan careers in areas such as business, law, and journalism, or who for other reasons desire a liberal education concentrating on psychology. Psychology 2500 and two courses from 2520-30-40 or 2518-28 are prerequisite to a major consisting of Psychology 3150, at least 4 hours of laboratory, field, or practicum courses, and 32 or more hours of upper division psychology courses.

(Concentration in Academic Psychology) Designed to prepare students for advanced work in the scientific, professional, and college level teaching areas of psychology. Prerequisites to the major include Psychology 2500, two courses from 2520-30-40 or 2518-28, Mathematics 1540-50-60 or 1840-50-60, and Biology 1210-20-30. The major consists of Psychology 3150, 8 hours of laboratory, field, or practicum courses, and 28 or more hours of upper division courses, of which 12 hours must be in courses at the 4000 level.

Minor: A minor in Psychology shall consist of Psychology 2500 and 20 additional hours from 3000 and 4000 level courses.

Honors Program in Psychology. A two-year (Junior-Senior) program leading to the B.A. degree. Objective of the Honors Program is to enable superior student to accelerate development of his grasp of science of psychology. Program encourages independent study.

Eligibility: Selection of participants is determined by departmental. Undergraduate Honors Committee. The interested student should apply to the Psychology Department. Successful applicants usually have a G.P.A. of at least 3.0. Requirements: Psychology 2500 or 251B and one other 2000 level course in psychology; 3150; and one quarter of laboratory or field experience. Honors students will complete Psychology 4948-58-68 and Psychology 4978-88-98. Completion of the Honors Program is dependent upon submission of an acceptable Honors research thesis and passing of a final Honors Examination.

2500 General Psychology (4) An introduction to psychology, with emphasis on the development, methods, and contributions of the major movements and ideas which define contemporary psychology.

2518-28 Honors: General Psychology (4, 4) First quarter an enriched survey of general psychology. Second quarter participation in psychological research, either individually or group arranged. Prereq., for 2518: Minimum ACT Composite 28, GPA 3.2. Prereq., for 2528: admission by permission of department.

2520 Biological Foundations of Behavior (4) Survey of theories and research pertaining to the biological foundations of behavior. General Psychology recommended.

2530 Psychology as a Social Science (4) Introduction to individual behavior and experience in a social context. 2530 recommended.

2540 Psychology of the Individual (4) Study of individuals, their behavior, and the progressive changes in behavior that occur in natural environments: introduction to personality, developmental and abnormal psychology. Recommended: 2500.

3106 Undergraduate Field Work in Psychological Services (1-4) Supervised fieldwork experience in community service agencies; seminar and paper. May be repeated for credit to maximum of 8 hours; no more than 6 credit hrs may be applied toward major. Prereq.: 9 hrs upper division psychology and permission of instructor. Satisfactory-No Credit.

3120 Social Psychology (4) General survey of theories, methods and research findings on individual behavior in a social context. Prereq.: 2500.

3129 Social Psychology Laboratory (2) Prereq. 3120. Coreq.: 3319.

3150 Psychological Statistics (4) Introduction to basic statistical methods used in behavioral sciences.

3210 Learning and Thinking (4) Study of theoretical and empirical basis of learning and thinking. General Psychology recommended. 

3219 Laboratory in Learning and Thinking (2) Pre- req.: 3210. Coreq.: 3319.

3220 Motivation and Emotion (4) Current theories, approaches and their development.


3319 Introduction to Laboratory in Psychology (2) Basic techniques of research in behavioral science, including experimentation and naturalistic observation. Coreq.: one of the following: 3129, 3219, 3559.

3430 Psychology of the Consumer (4) Origins and principles of advertising and selling from standpoint of consumer choice. Prereq.: 2530 recommended.
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3550 Child Psychology (4) Origin and principles of behavior in infancy and childhood; physical, intellectual, social, emotional, and language behavior of the normal child. 2540 recommended.


3616-26 Human Relations (6, 4) Experience and study of human relations in dyadic, small and large group situations. Primarily experimental. No credit until sequence is completed. Satisfactory-No Credit.

3650 Abnormal Psychology (4) Constitutional and environmental factors in abnormal behavior; neurotic and psychotic reactions; non-technical discussion of diagnostic and therapeutic methods. 2540 recommended.

3660 Sociopsychological Approaches to Abnormal Behavior (4) Social learning approaches to description and change of maladaptive behavior, including emphasis on historical and current conceptions, descriptions of the varieties, and detailed study of techniques for changing deviant behavior. Prereq: 2540.

4101 Foreign Study (1-16) See page 167.

4102 Off-Campus Study (1-16) See page 167.

4103 Independent Study (1-16) See page 167.

4107 Experience in Individualized Instruction (2) Supervised participation as a tutor in individualized instruction. Prereq: permission of instructor. May be repeated once.

4109 Undergraduate Research (1-4) May be repeated for credit to maximum of 16 hrs. Prereq: permission of instructor.

4120 Topics in Social Psychology (4) Intensive analysis of selected research topics. Prereq: 3120 or Sociology 3130. (Same as Sociology 4120.)

4230 Sensory Processes and Perception (4) Survey of sensory and perceptual processes with emphasis on audition and vision. Prereq: 3150, 2520 recommended.

4259 Laboratory in Sensory Processes and Perception (2) Prereq or coreq: 4230.

4340 Human Factors in Man-Machine Systems (4)

4460 Organizational-Industrial Psychology (3) Same as Industrial Management 4460.

4510 Personality Theories (4) Prereq: 3650 or 3660.

4519 Research in Personality (4) Discussion and demonstration of research on individual as it relates to major theoretical issues and to substantive areas of investigation. Prereq: 3150 or equivalent and senior standing.

4560 Personality and Social Systems (4) Prereq: 2540.

4650 Psychology of Aging (4) Behavioral changes from maturity through old age. Prereq: permission of instructor.

4610 Group Processes (3) Study and experience of theory and techniques of group processing and facilitation. Those participating in 4610 are expected to continue into 4620 and 4630. Prereq: 3616-26 and permission of instructor.

4620-30 Seminar in Group Processes (6, 6) Didactic and laboratory experience for those qualified for further training as group facilitators. Prereq: 4610 and permission. No credit given until sequence is completed.

4640 Psychological Tests and Measures (4) Theory and construction of individual and group measures; surveys of various methods of assessment of intelligence, personality, special abilities, and educational achievement. Prereq: 3150.

4650 Symbolic Processes (4) Logic of signs and symbols; directed and associative thinking; memory, problem-solving, and concept formation; nature, use, and development of language. Prereq: 3210 or permission of instructor.

4660 The Psychology of Language (4) Theories and descriptions of phonology, syntax, and semantics as applied to psychology and related disciplines. 4650 or linguistics background recommended.

4710 Physiological Psychology (4) Nervous system and physiological correlates of behavior. Prereq: One year of Biology or Zoology and Psychology 2520.

4719 Physiological Psychology Laboratory (4) Laboratory studies of nervous system and physiological correlates of behavior. Coreq: 4710.

4720 Comparative Animal Behavior (4) Methods and principles. (Same as Zoology 4720.)

4729 Comparative Animal Behavior Laboratory (4) Laboratory and field studies. Coreq. 4720. (Same as Zoology 4729.

4750 Evolution and Ontogeny of Social Behavior (4) Genetic, evolutionary, ecological, and developmental processes as they apply to social organization and dynamics of vertebrates. Prereq: permission of instructor.

4830 History and Systems of Psychology (4) Prereq: 9 hours of Upper Division psychology.

4850 Learning Theories (4) Historical and theoretical development of learning models. Prereq: 3210.

4860 Programmed Learning (3) (Same as Education C & I 4860.)

4870 Contemporary Research in Behavior of Women (4) Study of interaction of cultural and biological factors in determining the behavior of women, with emphasis on physiological mechanisms involved.

4880 Afro-American Psychology (4) Review and analysis of psychological literature on Afro-Americans. Prereq: permission of instructor. (Same as Black Studies 4880.)

4890 Differential Psychology (3) Nature and sources of individual differences in behavioral characteristics, and differences between racial, ethnic, socio-economic, sex, and other groups. Prereq: 4640.

4900 Aspects of Urban Environment I (3) Interdisciplinary course in urban problems. Prereq: Permission of one instructor. (Same as Architecture 4900, Human Services 4900, Political Science 4900, and Real Estate 4900.)

4910 Senior Seminar in General Psychology (4) Integrative review of major problems in psychology. Intensive examination of selected topics. Prereq: permission of instructor.

4948-58-68 Honors: Reading and Research (4, 4, 4) Honors candidates only.

4978-88-98 Honors: Senior Reading and Research (4, 4, 4) Honors candidates only.

GRADUATE
The Master's Program
See requirements in the Graduate School Catalog.

The Doctoral Program
General requirements for the degree of Doctor of Philosophy are described in the Graduate School Catalog.

5000 Thesis
5019-29-39 Laboratory Techniques in Experimental Psychology (3, 3, 3)

5070 Seminar in College Teaching (2)

5079 Practicum in College Teaching (2)

5080 Current Topics in Applied Psychology (3)

5100 Developmental Psychology (3)

5110 Clinical Aspects of Human Sexuality (3)

5111-12-13 Seminar in Current Issues in School Psychology (1, 1, 1)

5140-50-60 Psychoeducational Assessment (3, 3, 3)

5149-59-69 Practicum in School Psychology (1, 2, 2)

5170-80-90 Proseminar in Organizational Psychology (3, 3, 3)

5210 Readings in Psychology (1)

5220 Readings in Psychology (2)

5230 Readings in Psychology (3)

5240 Readings in Psychology (4)

5250 Readings in Psychology (5)

5260 Special Problems in Psychology (1)

5270 Special Problems in Psychology (2)

5280 Special Problems in Psychology (3)

5290 Special Problems in Psychology (4)

5300 Special Problems in Psychology (5)

5319 Field Work in School Psychology: Level I (2)

5340 Group Dynamics (3)

5350-60-70 Seminar in Psychology (3, 3, 3)

5400 Psychophysics and Scaling Methods (3)

5420-30-40 Advanced Psychological Statistics (3, 3, 3)

5445 Advanced Correlational Methods (3)

5450 Human Problems in Administration (3)

5460 Personnel Research Seminar (3)

5500 Fundamentals of Psychometrics (4)

5510 Instrumentation for Psychological Research (3)

5520 Theory of Mental Measurement (3)

5530 Test Construction and Interpretation (3)

5550 Advanced Social Psychology (3)

5560-70 Seminar in Social Psychology (3, 3)

5580 Theories of Personality (3)

5581-82-83 Clinical Psychology I: Human Development and Personality (2, 2, 2)

5589 Psychological Techniques Laboratory (2)

5590 Psychodynamics (3)

5591-92-93 Clinical Psychology I: Patterns of Adaptation (2, 2, 2)

5600 Psychopathology (3)

5601-02-03 Clinical Psychology I: Behavioral Deviance and Psychopathology (2, 2, 2)

5610-20 Psychology of Learning (3, 3)

5650 Ethics and Professional Practices (1)

5670 Forensic Psychology (2)

5680 Neural Basis of Behavior (3)

5690 Psychopharmacology (3)

5713 Learning Modules for Techniques in Professional Psychology (1-4)

5750 Ethological Psychology (3)

5760 General Vertebrate Neuroanatomy (3)

5769 Advanced Techniques in Physiological Psychology (3)

5790 Seminar in Psycholinguistic Concepts in Speech Pathology (3)

5810-20 Techniques of Psychological Examination (3, 3)

5819-29 Practicum in Techniques of Psychological Examination (2, 2)
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5840 Student Appraisal (3)
5850-60-70 Psychological Appraisal (3, 3, 3)
5859-69-79 Practicum in Psychological Appraisal (2, 2, 2)
5880 Occupational and Educational Information (3)
5890 Counseling Techniques (3)
5950-60-70 Consultation in Human Development Settings (3, 3, 3)
5959-69-79 Practicum in School Psychology II (2, 2, 2)
6000 Doctoral Research and Dissertation
6050 Experimental Methods in Sociology and Social Psychology (3)
6100 Community Psychology (3)
6210-20-30 History, Systems, and Theories in Psychology (3, 3, 3)
6250-60-70 Seminar in Organizational Psychology (3, 3, 3)
6280-290-300 Factor Analysis (3, 3, 3)
6310 Seminar in Motivation and Emotion (3)
6319 Field Work in School Psychology: Level II (2)
6320 Seminar in Research Methods (3)
6330 Seminar in Learning (3)
6340 Seminar in Developmental Psychology (3)
6350 Seminar in Thinking (3)
6360 Seminar in Sensation and Perception (3)
6370 Seminar in Theoretical Psychology (3)
6380 Seminar in Industrial Psychology (3)
6390 Seminar in Psychotherapy (2)
6395 Seminar in Assessment (3)
6400 Seminar in Changing Concepts in Clinical Psychology (3)
6405 Seminar in Psychopathology (3)
6410-20-30 Psychotherapy (3, 3, 3)
6411-12-13-14 Psychotherapy: Elective Concentration (2, 2, 2, 2)
6419-29-39 Psychotherapy Practicum (1-3, 1-3, 1-3)
6450-60 Advanced Psychometrics (3, 3)
6491 Field Placement in Clinical Psychology Level I- I (1-8)
6492 Field Placement in Clinical Psychology Level II (1-8)
6493 Field Placement in Clinical Psychology Level III (1-8)
6494 Field Placement in Clinical Psychology Level IV (1-8)
6500 Seminar in Psychometrics (3)
6520 Experimental Design (3)
6550 Seminar in Advanced Social Psychology (3)
6560 Directed Readings in Clinical Psychology (2)
6575 Seminar in Mental Health Administration
6650-60-70 Systems Approaches in Psychological Services (3, 3)
6659-69-79 Practicum in School Psychology III (2, 2, 2)
6710 Seminar in Physiological Psychology (3)
6720 Seminar in Comparative and Ethological Psychology (3)
6730 Methods of Ethological and Naturalistic Research (3)

6750 Group Psychotherapy (3)
6780 Advanced Psycholinguistics (3)
6840 Child Psychotherapy (3)
6870 Adult Psychotherapy (3)
6900 Field Work in Industrial Psychology

Religious Studies (863)

Professors: F.S. Lukby (Head), B.D. Colgate (Rochester); R.V. Norman, Jr. (Associate Vice Chancellor for Academic Affairs), Ph.D. Yale.

Associate Professors: B.L. Daniels (assistant Dean of the College of Liberal Arts), Ph.D. Duke; D.L. Dungan, Th.D. Harvard; D.E. Linge, Ph.D. Vanderbilt, C. Reynolds, Ph.D. Harvard.

Assistant Professors: W.L. Humphreys, Th.D. Union; J. Kim, Ph.D. Chicago; R.R. Earl, Jr., M.Div. Vanderbilt.


UNDERGRADUATE

Major: Two options are available in Religious Studies. One Religious Studies 2000-level course is a prerequisite for either option, and Religious Studies 4850 is required in both options.

The basic option consists of 36 hours of courses at the 3000-level or above (including 4850) with a minimum of 12 hours selected from courses listed below under History and Literature of Religions and a minimum of 12 hours selected from courses listed below under Problematic of Religion. Majors are invited to discuss their programs with a member of the Religious Studies faculty.

The student-initiated option is to be specified in an individual program defined in consultation between each student and the Department of Religious Studies. At least 36 hours of courses at the 3000-level or above (including 4850) are required for this major. Students whose educational goals would best be served by such a major are encouraged to construct their own plans of study as early as possible. The student-initiated option is recommended for persons who plan to pursue graduate study in religion or a closely related field. Further details are available in the department office, located at 501 McElrath Tower, or from any member of the Religious Studies faculty.

History and Literature of Religion: 3011, 3021, 3061-71, 3110, 3120, 3210-20-30, 3270, 3311-12, 3330, 3340, 3411-12-13, 3440, 3490, 3510-20, 3550, 3560, 3630, 3650, 3660, 3670, 3680, 3710, 3770, 4210, 4310, 4450, 4640, 4670, 4810-20-30.

Problematic of Religion: 3600-10, 3611, 3620, 3690, 3715, 3720, 3740, 3750, 3760, 3780, 4101, 4102, 4103, 4111-21, 4370-71, 4410, 4540, 4610, 4810-20-30, 4850, 4940, 4950, 4960.

Minor: Twenty-four hours of courses at the 3000 level and above. It is suggested that students minoring in Religious Studies discuss their programs with a member of the department faculty.

2610 Religion and Culture: Religions in History (4)

Introduction to the study of religion through selected historical traditions, East and West.

2611 Religion and Culture: Ancient Near Eastern Religions (4) An alternative to 2610. Students may not receive credit for both 2610 and 2611.

2620 Religion and Culture: Contemporary Issues (4)

Introduction to the study of religion through selected religious problems and alternatives in the modern and post-modern world.

HISTORY AND LITERATURE OF RELIGIONS

3011 Phenomenology of Religion (4) Examination of recurrent forms, themes and patterns in history of religions, such as high gods, cultural heroes, initiations and ascensions.

3021 Religious Myth, Symbol, and Ritual (4) Study of interrelationships of myths, symbols, and rituals among preliterate peoples through a specific motif, such as solar, lunar, and communal.

3061-71 History of Western Religious Thought and Institutions (4, 4) 3061—First Century to the Thirteenth Century. 3071—Thirteenth Century to 1800. (Same as History 3061-71.)

3110 Ancient Israel's Historical and Religious Traditions (4) Political, religious and cultural history and traditions of ancient Israel from earliest period to Exile.

3120 The Rise of Judaism (4) Political, religious and cultural history and traditions of exilic and post-exilic Israel and early Judaism through 135 A.D. Later literature of Old Testament, Apocrypha, and Dead Sea Scrolls.

3210 Early Greek Mythology (3) (Same as Classics 3210).

3220 Greek Mythology in the Classical Period (3) (Same as Classics 3220).

3230 Roman Mythology (3) (Same as Classics 3230).

3270 Russian Philosophical and Theological Thought (4) (Same as Russian 3270 and Philosophy 3270).

3311-12 Images of Jesus (4, 4) Introduction to ancient and modern portrayals of Jesus, understood within their cultural milieus. Must be taken in sequence.


3340 Judaism in the Common Era. (3) Survey of literature and traditions of Judaism in the Common Era.

3411-12-13 Renaissance and Reformation (3, 3, 3) (Same as History 3411-12-13."

3440 Religion of Primitive Peoples (3) (Same as Anthropology 3440).

3490 African Religions (4) Examination of religions of the indigenous peoples of Africa, including a study of functions of myth, rites, and symbols and an inquiry into how certain political movements in Africa have been and are informed by religious sensibilities. (Same as Anthropology 3490 and Black Studies 3490).

3510-20 Religion in America (4, 4) Not a survey but a representative profile of religion in America, past and present, organized each quarter around theme or problem. May be taken independently.

3550 Religion and Racism in America (4) Historical and critical survey of role played by religion in supporting and criticizing American racial injustice. (Same as Black Studies 3550).

3560 Black Religion in America (4) Historical and critical examination of formation and development of black religious thought and institutions in America. (Same as Black Studies 3560).

3630 World Religions (4) Philosophic study of major living religions. May not be taken by students who have completed any of the following: 3650-60-70-80. (Same as Philosophy 3630.)

3650 Philosophy and Religion in India (4) (Same as Philosophy 3650).

3660 Buddhist Philosophy and Religion (4) (Same as Philosophy 3660).

3670 Religion and Philosophy in China and Japan (4) (Same as Philosophy 3670).
4111-21 Modern Religious Philosophies (4, 4) Examination of the religious implications of major thinkers and movements. 4111—Nicolas de Cusa to Hume. 4121—Kant and the nineteenth century. Prereq: 9 hrs. of philosophy other than logic. (Same as Philosophy 4111-21.)

4370-71 Theoretical Issues in Medical Ethics (4, 4) (Same as Philosophy 4370-71.)

4410 American Religious Thought (4) Selected figures, movements and problems in American religious thought from colonial period to present.

4540 Social and Religious Change (4) Same as Sociology 4540.

4610 Topics in Western Religious Thought and Institutions (4) Selected figures, issues, and institutions. Seniors and graduate students only, except by permission of Department. Prereq: 3061-71. May be repeated for credit to a maximum of 12 hours.

4810-20-30 Readings and Research in Religious Studies (3-4, 3-4, 3-4)

3400-10 Religious Ethics (4, 4) Historical and critical survey of religious ethics; basic theories and their application in social problems.

3611 Religious and Philosophical Issues in Medical Ethics (4) Explores ethical issues in medicine such as abortion, euthanasia, human experimentation, fairness in health care delivery and the doctor-patient relationship. (Same as Philosophy 3611.)

3620 Topics in Religious Ethics (4) Examination of particular theoretical issues and social problems from perspectives of religious ethics. May be repeated once for credit.

3690 Philosophy of Religion (4) (Same as Philo- 3690.)

3715 Religious Thought in the Nineteenth Century (4) Major problems and themes in European and American religious thought between 1800 and the beginning of World War I.

3720 Contemporary Religious Thought (3) Major themes, issues, and thinkers.

3740 Issues in Science and Religion (3) Relation of religion to history, methods, and theories of science.

3750 Theology and Literature (3) Exploration of issues raised for religious inquiry by phenomenon of literature. Relation of religious and moral concepts to the human experience of literature. Critical commentary on various contemporary criticism. Relation of religious language to certain forms of human expression (symbol, metaphor, myth, image) identified in study of literature.

3760 Eastern Religions and Western Thought (3) Critical consideration of influences of Hindu and Buddhist Philosophy on Western thinkers.

3780 The Literature of Discord (3) Critique of religion in Western thought. Aspects of atheism, rebellion, and revolution in such thinkers as Lucretius, Spinoza, Voltaire, Feuerbach, Marx, Nietzsche, Russell, and Camus.

4101 Foreign Study (1-16) See page 167.

4102 Off-Campus Study (1-16) See page 167.

4103 Independent Study (1-16) See page 167.
2510-20 Intermediate French (4, 4) Must be taken in sequence. 4 class meetings and 2 laboratory periods.

2518-28 Honors: Intermediate French (4, 4) Honors course for students of superior ability. 1518 not open to students who have taken French in high school. Freshmen are admitted on the basis of a diagnostic test or conference with the instructor, high school average, and performance on the ACT. This class will be held to a maximum of 15 so that each student may receive more attention. This class will cover the normal French program for the first year, but will be enriched whenever possible. Students will be expected to spend only the normal amount of time preparation. Those who find the course too difficult may easily transfer to a regular class. Potential majors and minors in French are urged to take this course. Students who pass 1510 with a grade of B or higher may take 1528 instead of 1520.

4160-70-80 Advanced Conversation (2, 2, 2) Intensive training in prepared and spontaneous conversations. Subjects range from travel and current events to literature and aspects of national culture. Prereq: completion of 9 hrs of courses on 3000-level.

4210-20-30 Phonetics and Advanced Grammar (3, 3, 3) Prereq: 2130 or equivalent.

4250 Introduction to Descriptive Linguistics (3) Phonetics and phonemics, morphology and syntax. Types of languages, linguistic groups, dialects and dialect geography. Application of descriptive linguistics—field linguistics, dialect, study; its practical use in learning languages and in language teaching. Introduction to transformational grammar. Prereq: 9 hrs of upper division English, or 9 hrs of upper division courses in a modern or ancient language (exclusive of German and French 3010-20-30, courses in literature in translation, and general courses in Latin and Greek requiring no knowledge of these languages), or permission of department. (Same as Spanish, German, and Russian 4250.)

4260 Introduction to Historical and Comparative Linguistics (3) (Same as Spanish, German and Russian 4260.)

4270 Romance Linguistics (3) Development of classical Latin through vulgar Latin into major Romance languages. (Same as Spanish 4270.)

4310-20-30 French Literature of Eighteenth Century (3, 3, 3) Prereq: 2130 or equivalent.

4350-60-70 Medieval French Literature (3, 3, 3) Medieval works in modern French texts. Prereq: 2130 or equivalent.

4410-20-30 French Civilization (3, 3, 3) Prereq: 2130 or equivalent.

4510-20-30 French Literature of Nineteenth Century (3, 3, 3) Prereq: 2130 or equivalent.

4618-28 Honors: Readings in French Literature (3, 3) For students who have completed 3130 or equivalent and who have at least 3.0 on all university work. No credit for grade less than B.

4640-50-60 French Literature of Sixteenth Century (3, 3, 3) Prereq: 2130 or equivalent.

4710-20-30 French Literature of Twentieth Century (3, 3, 3) Prereq: 2130 or equivalent.

GRADUATE
The Master's Program
See Graduate Catalog for requirements.

5000 Thesis
5011 Techniques in Literary Analysis (2)
5101 Foreign Study (1-12)
5102 Off-Campus Study (1-12)
5103 Independent Study (1-12)
5110-20-30 Old French (3, 3, 3)
5151-61-71 Bibliography and Methods of Research (1, 1, 1)
5210-20-30 French Literature of Sixteenth Century (3, 3, 3)
5310-20-30 French Directed Readings (3, 3, 3)
5350-60-70 The Philosophes (18th Century) (3, 3, 3)
5410-20-30 The French Novel (3, 3, 3)
5450-60 Lyric Poetry of Nineteenth Century (3, 3)
5470 Baudelaire and the Symbolists (3)
5510-20-30 The French Drama (3, 3, 3)
5610-20-30 Trends in Contemporary French Literature (3, 3, 3)
5650-60 Advanced Syntax and Stylistics (3, 3)
5670 Problems in Romance Linguistics (3)
GRADUATE
See Graduate School Catalog for requirements.

5000 Thesis
5011 Techniques in Literary Analysis (2)
5101 Foreign Study (1-12)
5102 Off-Campus Study (1-12)
5103 Independent Study (1-12)
5151-61-72 Bibliography and Methods of Research
5610-20-30 Readings in Italian Literature (3, 3, 3)
5710-20-30 Seminar in Italian Literature (3, 3, 3)

Portuguese (811)

UNDERGRADUATE
1510-20 Elementary Portuguese (4, 4) Must be taken in sequence. 4 class meetings and 2 laboratory periods.
2510-20 Intermediate Portuguese (4, 4) Must be taken in sequence. 4 class meetings and 2 laboratory periods.
3510-20 Aspects of Portuguese Literature (4, 4) Prereq: 2520. Must be taken in sequence. 4 class meetings and 2 laboratory periods.

Spanish (924)

UNDERGRADUATE
1510-20 Elementary Spanish (4, 4) Must be taken in sequence. 4 class meetings and 2 laboratory periods.
1518-28 Honors: Elementary Spanish (4, 4) Honors course for students of superior ability. 1518 open to students who have taken Spanish in high school. Freshmen are admitted on the basis of a diagnostic test or conference with the instructor, high school average, and permission on the ACT. This class will be held to a maximum of 15 so that each student may receive more attention. Students will follow an enriched program with continuing emphasis upon speaking ability and with special emphasis on reading, including literary selections. Must be taken in sequence. Students who pass 1510 with a grade of B or higher may take 1528 instead of 1520.
2510-20 Intermediate Spanish (4, 4) Must be taken in sequence. 4 class meetings and 2 laboratory periods.
2518-28 Honors: Intermediate Spanish (4, 4) Honors course for students of superior ability in Spanish. Incoming freshmen are admitted on the basis of a diagnostic test, high school average, and performance on the ACT. This class will be held to a maximum of 15 so that each student may receive more attention. Students will follow an enriched program with continuing emphasis upon speaking ability and with special emphasis on reading, including literary selections. Must be taken in sequence. Students who earn an A or B in 2528 automatically receive credit for Spanish 3000. Prereq: Spanish 2518-28 or equivalent.
2610-20 Panorama of Hispanic Culture (4, 4) 2610 — Peninsular Spain from Roman invasion through 19th Century, including Colonial period in Latin America. 2620—Highlights of 20th Century culture in both Latin America and Spain.

3000 Spanish Transition (3) Development of literary and linguistic skills necessary for satisfactory work in courses above 3000. Recommended for all students intending to take upper-division Spanish, especially those intending to major.
3010-20 Spanish and Spanish American Literature in English Translation (3-4, 3-4, 3-4) 3010 — Masterpieces of Classical Spanish Literature: Cervantes, realism and the picaroon novel, religious mystics, Golden Age Theatre. 3020 — Masterpieces of Twentieth Century Spanish Literature: Unamuno, Lorca, Garcia Lorca, Ortega. 3030 — Contemporary Spanish American Fiction: Marquez, Borges, Fuentes, Asturias. No change in credit hours after add deadline. Option of 4 hours credit must present an appropriate amount of extra work above that required for 3 hours.
3410-20 Intermediate Composition and Conversation (3, 3, 3) Not offered for graduate credit.
3510-20 Aspects of Spanish Literature (4, 4) Prereq: 2520 or equivalent. Recommended for literature majors. Not offered for graduate credit.
3610-20 Survey of Spanish Literature (4, 4) May be taken in place of 3510-20 or 3710-20. Prereq: 2520 or equivalent.
3710-20 Aspects of Spanish American Literature (4, 4) May be taken in place of 3510-20 or 3810-20. Prereq: 2520 or equivalent.
4030 Masterpieces of Spanish Literature in English Translation (3) No foreign language credit.
4040 Spanish Drama in English Translation (3) No foreign language credit.
4050-50-70 Hispano-Arabic Literature and Culture (3, 3, 3)
4101 Foreign Study (1-16) See page 167.
4110-20-30 Spanish Literature of the Golden Age (3, 3, 3) The picaroon novel, Cervantes, the Comedia.
4150 Theatrical Spanish (1-3) Performance in one or more Spanish plays. May be repeated for credit with permission of department. Prereq: 2130 or equivalent and permission of instructor.
4160-70-80 Advanced Conversation (2, 2, 2) Intensive training in prepared and spontaneous conversations. Subjects range from travel and current events to literature and aspects of national culture. Prereq: completion of 9 hrs of courses on 3000 level.
4210-20-30 Phonetics and Advanced Grammar (3, 3, 3) Prereq: 2130 or equivalent.
4250 Introduction to Descriptive Linguistics (3) (Same as French, German and Russian 4250.)
4260 Introduction to Historical and Comparative Linguistics (3) (Same as French, German and Russian 4260.)
4270 Romance Linguistics (3) (Same as French 4270.)
4410 Spanish Civilization (3) Prereq: 2130 or equivalent.
4420-30 Latin American Civilization (3, 3, 3) Prereq: 2130 or equivalent.
4540-60-70 Studies in Modern Spanish Style (3, 3, 3) Prereq: 3410-20-30 or permission of instructor.
4510-20-30 Spanish Literature of Nineteenth Century (3, 3, 3) Prereq: 2130 or equivalent.
4618-28-38 Honors: Readings in Literature (3, 3, 3) For students who have completed 3130, 3330, or equivalent and have at least 3.0 on all university work. No credit for grade less than B.
4710-20-30 Spanish Literature of Twentieth Century (3, 3, 3) 4710—Nordic Romance. 4720—Drama. 4730—Lyric Poetry. Prereq: 2130 or equivalent.
4810-20-30 Topical Survey of Spanish American Literature (3, 3, 3) 4810: Prose fiction; major examples of the short story and novel. 4820: Poetry; landmarks, figures of past and present. 4860: Drama and essay; the modern period.
GRADUATE
The Master's Program
See Graduate School Catalog for requirements.

5000 Thesis
5011 Techniques in Literary Analysis (2)
5070-80-90 Hispanic-Arabic Literature and Culture (3, 3, 3)
5101 Foreign Study (1-12)
5102 Off-Campus Study (1-12)
5103 Independent Study (1-12)
5110-20-30 Old Spanish (3, 3, 3)
5151-61-71 Bibliography and Methods of Research (1, 1, 1)
5210-20-30 The Early Spanish Novel (3, 3, 3)
5211-21 Don Quijote (3, 3)
5231 The Exemplary Novels, Persiles y Sigismunda (3)
5250-60 The Generation of '98 (3, 3)
5270 the Contemporary Novel (3)
5310-20-30 Directed Readings (3, 3, 3)
5311-21-31 Special Topics in Spanish or Spanish American Literature (3, 3, 3)
5340 Problems in Hispanic Culture (3)
5510-20-30 Spanish Theatre After the Golden Age (3, 3, 3)
5550-60-70 Golden Age Theatre (3, 3, 3)
5610 Spanish American Prose to 1900 (3)
5611-21 Spanish American Lyric Poetry (3, 3)
5620-30 The Modern Novel in Spanish America (3, 3)
5631 Spanish American Essay (3)
5632 The Spanish American Short Story (3)
5633 Twentieth Century Latin Theatre and Film (3)
5640 Latin American Women Writers (3)
5650-60 Advanced Syntax and Stylistics (3, 3)
5670 Problems in Romance Linguistics (3)
5810-20-30 Spanish Lyric Poetry (3, 3, 3)
5910 Literary Criticism: Foundations of Romance Criticism (3)
6000 Doctoral Research and Dissertation
6210-20-30 Seminar in Spanish Literature (3, 3, 3)
6310-20-30 Seminar in Latin American Literature (3, 3, 3)

Russian
See Germanic and Slavic Languages.

Russian and East European Studies
See Cultural Studies.

Sociology (915)

Professors:
J.A. Black (Head), Ph.D. Iowa; D.J. Champion, Ph.D. Purdue; E. Cole (Emeritus), Ph.D.;
D. Cornell; L.E. Dotson, Ph.D. Vanderbilt;
L. Ebersole (Vice Chair, College for Planning and Administration), Ph.D. Pennsylvania;
W.B. Jones (Emeritus), Ph.D., Vanderbilt;
J.B. Knox (Emeritus), Ph.D., Harvard.

Associate Professors:
D.M. Bels, Ph.D. Michigan State; D. Clelland, Ph.D. Michigan State; D.W. Hastings, Ph.D. Massachusetts; T.C. Hood, Ph.D. Duke;
N.E. Shover, Ph.D. Illinois (Urbana);
S.E. Wallace, Ph.D. Minnesota; P.L. Wuebben, Ph.D. Wisconsin.

Assistant Professors:
S. Kurth, Ph.D. Illinois (Chicago); S.J. Miller, Ph.D. Kansas; S.E. Norland, Ph.D. Iowa;
R.G. Perrin, Ph.D. British Columbia; T.J. Weirath, Ph.D. Wisconsin (Madison).

Instructor:
D. Harris, M.A. Tennessee.

UNDERGRADUATE
Major: Consists of 36 upper-division hours in sociology. Eight lower-division hours in sociology are prerequisite to a major. The minor shall consist of 24 upper-division hours. Eight lower-division hours in sociology are a prerequisite to a minor.

Social Work: Students contemplating entrance into the field of professional social work will have an opportunity to plan their upper division programs to this end. Suggested course offerings for students planning a social work career can be obtained from the Graduate School of Social Work catalog. The address and general information on the School are given on pages 41-42.

Students who contemplate professional training in social work should discuss their upper division programs with the Knoxville campus representatives of the School of Social Work.

American Studies. See Cultural Studies.

Latin American Studies. See Cultural Studies.

1510 General Sociology (4) Social origins, structures, forces, processes, and products.

1520 Sociology of Social Problems (4)

3010 Collective Behavior (4) Processual analysis of such collective phenomena as crowd behavior, social epidemics, fads, fashions, popular crazes, and mass movements; nature of the public, functional analyses of public opinion; problems of democracy as viewed from standpoint of organizing collective action.

3030 Political Sociology (4) Sociological analysis of American political system. Attention given to consideration of concept of power, elitist-pluralist controversy, end-of-ideology debate, and related topics.

1310 Social Psychology (4) Social basis of human behavior; socialization; social status and social roles; personality; social adjustment.

3110 Deviance and the Social Order (4) Examination of relations between deviance and social order. Various types of social deviance considered, with focus on their structure, social factors related to process of becoming deviant, and consequences of deviant conduct.

3150 Sociology of Sex Roles (4) Sociological examination of the structure of current American sex roles utilizing various theoretical perspectives, e.g., role theory and bargaining. Development and effects of organized reactions to sex role expectations and social movements such as feminism are considered.

3160 Sociology of Medicine (4) Introduction to sociological approach to study of health and medicine. Emphasis on relationship of demographic characteristics to the prevalence of disease, organization of health care facilities and staff-patient relationships.

3220 The Family (4) Origin and ethnology of the family; background of modern American family; the normal family; social changes and the family; social pathology of the family; reorganization and future of the family system.

3320 Sociology of Mass Communication (4) Sociology of different modes of mass communication and mass media, nature of mass communications organizations as bureaucratic structures, and effects of mass communication on social behavior are examined.

3330 Prejudice and Racism in the United States (4)

Same as Black Studies 3330.

3340 Sociology of Poverty and Inequality (4) Factors contributing to condition of poverty and social policies of being poor. (Same as Black Studies 3340.)

3350 Social Stratification (4) Study of economic class, prestige, life style, and power hierarchies; causes and consequences of structured social inequality.

3410 Urban Environment (4) Introduction to urban environment includes: Emergence of the city; cities of New World; rise of metropolitan America; urban society; social worlds within urban environments.

3420 Urban Problems (4) Crises and the urban conscience; urban problems and interventions; housing, urban renewal and neighborhood conservation; the urban poor, the dissident and alienated; planning for urban youth; the urban elderly; the social and physical planning process; new towns.

3510 Juvenile Delinquency (4) Critical assessment of nature of the delinquency problem, major sociological causes and their implications for control, and administration of juvenile justice.

3610 Sociology of Occupations (4) Introduction to occupations and their relation to the individual and society; technology and occupations; unequal rewards and occupations; social organization and occupations.

3620 Occupations as Organizations (4) Occupations as interest groupings; their impact on work settings and the wider community.

3690 Sociology of Aging (4) The aged as social minority and subculture in society; role changes in middle age and in old age; significance of increase in proportion of aged in terms of employment, welfare, retirement, and political power.

3810 Sociological Theory (4) Theory and analysis of the sociological theory from time of Comte to present.

3910 Introduction to Social Research (4) Scientific method applied to social phenomena; formulating hypotheses; techniques for collecting data; measuring social variables; interpreting research findings. Lectures and laboratory.

3920 Elementary Statistical Methods (4) Statistics used in social research; elementary descriptive techniques and measures of central tendency, dispersion, elementary statistical inference; tests of significance for parametric and non-parametric data.

4000 Special Topics (4) Student-generated course offered at convenience of Department upon student initiative. Scope of subject matter determined by students and instructor with approval of Department. Elective credit only. Prerequisite determined by Department.

4300 Society and Law (4) General treatment of social origins and consequences of law and legal process. Particular emphasis is placed on problems of law and social change, and on structure and functioning of legal sanctions. Some attention is paid to law and law-like phenomena in formal organizations and primitive societies.

College of Liberal Arts 209
Spanish.

See Romance Languages.

Speech and Theatre

Professors:

Associate Professors:

Assistant Professors:

Instructors:

UNDERGRADUATE

Major: The major, Speech and Theatre, offers three areas of concentration as follows:

Concentration in Speech: Eight hours from Speech 1211, 1221, Speech and Theatre 1441 are prerequisite to a concentration which consists of 8 hours from Speech 2021, 2311, (or 3551 by permission), 2331, 2351; thirty additional hours in Speech courses numbered 2000 and above, twelve hours of which may be in cognate areas approved by the Department.

Concentration in Theatre: Theatre 1520-30 is prerequisite to a concentration which consists of theatre 2111, 2211-21, 3252-53-54; twenty-four additional hours of Theatre courses numbered 2000 or above, twelve hours of which may be in cognate areas approved by the Department.

Concentration in General Speech: Designed for students who anticipate teaching in broadly based high school programs or who desire a wide exposure to the whole discipline of Speech. Prerequisite is a minimum of six hours selected from Audiology and Speech Pathology 3040, Broadcasting 2750, Communications 1110, Speech 1211, 1221, Speech and Theatre 1441, Theatre 1510. The concentration consists of Speech 2311 (or 3551 by placement); four hours selected from Speech 2021, 2331, 2351; thirty-six additional hours in courses numbered 2000 and above, no more than twenty of which can be in any one department of division (Audiology and Speech Pathology, Broadcasting, Speech, Speech and Theatre, or Theatre). At least twenty-four hours must be earned in courses numbered 3000 and above.

Minors: Two minors are offered. Speech and Theatre, Speech 1211-21 is prerequisite to a minor in Speech which consists of 24 hours in Speech courses numbered above 2000. Theatre 1520-30 is prerequisite to a
minor in Theatre which consists of 24 hours in Theatre courses numbered above 2000.

Certification for Teaching Speech or Speech and English. Consult Certification Clerk, Room 212, Claxton Education Building.

GRADUATE
The Department of Speech and Theatre offers the Master of Arts (M.A.) and Master of Arts in College Teaching (M.A.C.T.) degrees. Requirements for these degrees are described in the Graduate School Catalog.

Speech (943)

UNDERGRADUATE
1211 Introduction to Rhetoric and Public Address (4) Major theories of communication from Plato to present; methods for describing and evaluating public address.

1221 Introduction to Speech Communication (4) Fundamental theories and practices with particular reference to interpersonal communication, persuasion, semantics, psycholinguistics; legal and ethical dimensions of communication.

2021 Voice and Diction (4) Voice production; attention to individual speech problems.

2311 Public Speaking (4) Basic principles of speech preparation and delivery.

2321 Argumentation and Debate (4) Recommended: 2311.

2341 Deliberation in Assemblies (4) Various techniques for coming to collective decisions; parliamentary procedure.

2351 Interpersonal Communication (4) Communication theory in its application to informal, face-to-face situations.

2410-20 Intercollegiate Forensics (1, 1, 1) Supervised work in tournament debate. Prereq: Permission of instructor.

3011 Persuasion (4) Persuasive discourse: its psychological, sociological, and cultural dimensions.

3021 Group Communication (4) Communication theory in its application to small groups, especially discussion groups; communication barriers, nonverbal communication, business communication.

3410-20-30 Intercollegiate Forensics (1, 1, 1) Continuation of 2410-20-30 Prereq: Permission of instructor.

3541 Rhetorical Theory and Criticism (4) Survey of Western rhetorical theory; contemporary approaches to criticism of public address. Recommended: 1211.

3551 Advanced Public Speaking (4) Speech forms; principles and practice of speech composition.

4222 Advanced Argumentation and Debate (4) Prereq: 2331 or permission of instructor.

4461 Quantitative Research Methods in Speech Communication (4) Designing experiments; planning field studies; using statistical analysis.

4551 Southern Oratory (4) Historical and critical study of public address in the South.

4560 Rhetoric of the Women's Rights Movement (4) Historical and critical study of public address in campaign for women's rights from the 1830's to present.

4571 British Oratory (4) Historical and critical study of British public address.

4582 Public Discussion of Race (4) History and criticism of racial advocacy in America.

4591 Persuasive Uses of Imaginative Literature (4) Topics in social and political uses of novels, plays, and poems.

4811 Advanced Phonetics (4) Phonetic aspects of contemporary dialects of the English language. Prereq: Permission of instructor.


4999 Colloquium in Speech Communication (1) May be repeated for credit.

GRADUATE
5140 Communications Theory (3)

5210 Topics in Group and Interpersonal Communications (3)

5220 Quantitative Projects in Speech Communications (3)

5430 Studies in Tennessee Oratory (3)

5440 Organizational Communication (3)

5450 Studies in Collection and Use of Recorded Discourse (3)

5550-60-70 Studies in Persuasion (3, 3, 3)

5750-60-70 Studies in Rhetoric (3, 3, 3)

Theatre (976)

UNDERGRADUATE
1510 Introduction to Theatre (4) Theatre as experience; materials and techniques. Non-technical introductory course for general student, not available for credit to theatre majors.

1520-30 Fundamentals of Play Production (4, 4) 1520—Play analysis and arts of performance (acting and directing), 1530—Arts of performance and physical production.

2111-21 Acting (4, 4) (4) Readings, improvisations, and scene study; voice and movement for the stage basic rehearsal techniques. Prereq: permission of instructor for 2111.

2211-21 Stagecraft (4, 4) 2211—Techniques of scenery construction, 2221—Fundamental methods of stage lighting. Crew assignments on major productions.

2311 Basic Stage Costuming (4) Costume history and its application to the stage; basic techniques in costume construction.

3121-22 Advanced Acting (4, 4) Prereq: permission of instructor.

3151-52 Major Productions (4, 4) Supervised work on departmental productions. Available for credit only to theatre majors or with consent of Department. Prereq: permission of instructor.

3153 Outdoor Repertory Productions (4) Supervised work on productions at Hunter Hills Theatre. Available only to members of summer company by permission of instructor.

3221-22 Introduction to Scene Design (4, 4) Descriptive drawing as an approach to three-dimensional design; theatrical graphic standards; problems in stage design with reference to lighting, movement, scale, and style. Prereq: 2211-21 or permission of instructor. Must be taken in sequence.


3262-63 History of the American Theatre (4, 4) Development of the theatre as social institution in American life. 3262—From its beginnings to 1900. 3263—From 1900 to present. Prereq: 2211-21 and permission of instructor.

3321-22 Introduction to Lighting Design (4, 4) Mechanics of stage lighting; elementary theory; problems in basic lighting practice. Must be taken in sequence. Prereq: 2211-21 and permission of instructor.

3451-52 Play Directing (4, 4) Must be taken in sequence. Prereq: 2211.

3511-12 Introduction to Costume Design (4, 4) Costume as expression of character on stage; the application of costume history to specific design projects. Prereq: 2231 or permission of instructor.

4133-34 Special Problems in Acting (4, 4) Advanced exercises in voice and movement; preparation of major role under performance conditions. Prereq: 3121-22 and permission of instructor.

4151-52 Major Productions (4, 4) Continuation of 3151-52. Available for credit only to theatre majors. Prereq: Permission of instructor.

4153 Outdoor Repertory Productions (4) Continuation of 3153. Available only to members of summer company by permission of instructor.

4241-42 Advanced Scene Design (4, 4) Play interpretation through scenic means; setting as environment for dramatic action. Must be taken in sequence. Prereq: 3221-22 and permission of instructor.

4341-42 Advanced Lighting Design (4, 4) Relationship of light to setting in creating stage environment. Must be taken in sequence. Prereq: 3221-22 and permission of instructor.

4441-42 Advanced Play Directing (4, 4) Problems of play interpretation, directing period plays; preparation of a play for public performance. Must be taken in sequence. Prereq: 3451-52 and permission of instructor.

4541-42 Advanced Theatre Costume Design (4, 4) Advanced problems in costume design and construction; pattern drafting; draping. Prereq: 3511-12.


4951-52 Playwriting (4, 4) Prereq: Permission of instructor.

GRADUATE
5250 Seminar in Playwriting (3)

5310 Studies in European Theatre History (3)

5320 Studies in American Theatre History (3)

5520 Projects in Lighting Design (3)

5530 Projects in Play Directing (3)

5640 Projects in Scene Design (3)

5650 Projects in Costume Design (3)

5890 Studies in Theatrical Production (3)

5950-66-70 Studies in Dramatic Theory and Criticism (3, 3, 3)

Speech and Theatre (945)

UNDERGRADUATE
1441 Introduction to Cinema (4) Development of motion pictures as a medium; film aesthetics; analysis and criticism of selected films.

2031 Introduction to Oral Interpretation (4) Art of reading aloud; development of interpretive techniques and their application to selected passages of prose, poetry and drama.

3651 Oral Interpretation of Prose Literature (4) Prereq: 2031 or permission of instructor.

3661 Oral Interpretation of Poetry (4) Prereq: 2031 or permission of instructor.

3671 Oral Interpretation of Drama (4) Prereq: 2031 or permission of instructor.

4101 Foreign Study (1-16) See page 167.

4102 Off-Campus Study (1-16) May be repeated for major credit to maximum of 12 hours. See page 167.
UNDERGRADUATE
Prerequisites to upper division courses:
Biology 1210-20-30 is a prerequisite for all upper division courses, with the exception of 3090 and 4940. Additional prerequisites are included with course descriptions. Courses numbered in the 4000's are no more advanced than those in the 3000's except as may be indicated by prerequisites.

Major: Consists of Biology 3110, 3120, 3130; 18 hours of upper division Zoology courses (except 3010-20-30), and 3 quarters of chemistry or biochemistry at the 2000 level or above. Of the 18 hours of upper division Zoology courses a minimum of 6 hours must be at the 4000 level, including at least one laboratory or field course. Prerequisites to this concentration are: Biology 1210-20-30 or Zoology 1118-28 Zoology 2920-30 may be substituted for the course Biology 1220, and Chemistry 1110-20-30.
Corequisites are Mathematics 1840-50 or 1550-60 (Math 1840-50 is the recommended choice); and a year sequence in physics (except 1410-20-30).

Note: Students majoring in Zoology are advised to exercise care in fulfilling the Science and Mathematics triad requirements. Mathematics 1840-50 or 1540-50-60 and Chemistry 1110-20-30 (or 21 hours allotted) must be completed by all zoology majors.

Minor: Consists of 24 hours of Zoology, or Zoology and Biology, courses. (Zoology courses must be at the upper division level; but 2000-level Biology courses may be used, e.g. Biology 2110, 2120, 2130.) Prerequisites to this concentration are Biology 1210-20-30 or Zoology 1110-20-30 or 1118-28 and Chemistry 1110-20-30.

Note: Certain Zoology courses require organic chemistry or other prerequisites—Consult the catalog description for each course.

Many courses in this department are offered only in specified quarters. Students should plan in advance the proper sequence. Information on the quarter a course is to be offered is available in the Departmental Office.

1118-28-38 Honors: General Zoology (4, 4, 4) Honors courses designed for selected students admitted on basis of performance on American College Testing Program (freshmen) or grade point average 3.0 (1118-38). 1118—Unity of Life; Diversity of Life. 1128—Continuity with change; Ecology. 1138—Special Topics (offered only on demand). Biology 1230 should be substituted for Zoology 1128 for students who earn less than a B in each. A year's sequence could be completed with addition of Biology 1210. 2 hrs and 2 labs.

2460-70-80 Human Anatomy and Physiology for Nurses (3, 3, 3) Fundamentals of human anatomy and physiology. 2 hrs and 1 lab.

2461-71-81 Human Anatomy and Physiology for Nurses (4, 4, 4) Same as 2460-70-80 except 2 hrs and 2 labs.

2920-30 Human Physiology (4, 4) Fundamentals of biology; principles of human physiology and anatomy. Must be taken in sequence. Prerequisite: One year of college chemistry. 2 hrs and 2 labs.

3040 Natural History of the Vertebrates (5) Behavior; life history, phylogeny, and classification. 3 hrs and 2 labs or field periods.

3050 Comparative Vertebrate Embryology (5) Developmental morphology of selected vertebrates. 2 hrs and 3 labs.

3060 Comparative Vertebrate Anatomy (4) Anatomy of organ systems. Dogfish shark and cat used in laboratory. 2 hrs and 2 labs.

3071 Immunology (3) Same as Microbiology 3071.

3080 Principles of Animal Physiology (5) Physiology of organ systems of animals including man. Prerequisite: Biology 1220. Corequisites: Physics 2110-20-30 recommended. 3 hrs and 1 lab.

3090 Biology and Human Affairs (3) Same as Botany 3090.

3110 General Entomology (5) Introduction to insects; basic structure, development, behavior; classification of insect orders and representative families; interpretation and use of keys. Prerequisite: Biology 2130, or permission of instructor. 3 hrs and 2 labs.

3150 Invertebrate Zoology (5) Biology of invertebrates (except insects) with emphasis on ecology and behavior. Prerequisite: Biology 2130. 3 hrs and 2 labs.

3220 Physiology of Reproduction (3) Same as Animal Science 3220.

3320 Histology (4) Study of animal tissues. Prerequisite: Biology 2120. 2 hrs and 2 labs.

3410 Bioethics (3) Relationship between biological discoveries and human values. Open discussion of selected dilemmas arising from new knowledge about medicine, behavior, resources, and technology.

3920 Hormones and Endocrine Function in the Human Body (3) Basic course in human endocrinology with emphasis on the practical diagnosis of hormone levels for analysis of glandular function and treatment of endocrine abnormalities. 3 lectures and 1 discussion. Prerequisite: a course in physiology.

4007-4010-11-12-13-14-15-16-17 Minicourse in Zoology (2, 2, 2, 2, 2, 2, 2, 2) Selected, advanced topics in zoology, concentrated in time and subject matter. Consult departmental listing for actual topics offered. Prerequisite: As posted. May be repeated for credit.

4050 Developmental Biology (4) Experimental morphogenesis, fertilization, cellular interactions, hormonal effects and related topics with examples drawn primarily from invertebrates and vertebrates. Prerequisite: 3050. 2 hrs and 2 labs.

4110-20-30 Undergraduate Research Participation (2, 2, 2) Experience in active research projects under supervision of staff members. Prerequisite: Junior or senior standing and prior permission of instructor.

4140 Practicum in Zoology (1-3) Participation in practical application of zoology in community institutions, government organizations and industry. Approximately 5 hrs involvement per week. Prerequisite: Biology 2110, 2120, 2130 and senior standing.

4190 Mammalogy (4) Classification, evolution, distribution, reproduction, populations, and behavior. 2 hrs and 2 lab or field periods. (Not open to students with credit for 3190.)

4200 Ichthyology (5) Classification, collection and identification, distribution, life histories, and economic importance of fishes. Prerequisite: Biology 2130, or permission of instructor. 2 hrs and 2 lab or field periods. (Not open to students with credit for former 3200.)

4210 Cell Physiology (5) Development of modern concepts in cell physiology from point of view of information and control which examines kinetics and integration of cellular activities. Prerequisite: Cell Biology or any Physiology, and Organic Chemistry. Biochemistry recommended. 3 lecture hrs and 1 lab.

4240 Animal Ecology (4) Environmental factors determining distribution and numbers of animals; intra-specific relations; problems and methods. Prerequisite: Biology 2130. 2 hrs and 2 labs.
4250 Comparative Animal Physiology, I (3)
Environmental physiology. Survey of physiological mechanisms and their relation to ability of animals to survive in diverse physical environments. Prereq: Biology 3120-30, 2 years of chemistry. 3 hours.

4259 Comparative Animal Physiology Laboratory, I (1) Coreq: 4250. 1 hr.

4260 Comparative Animal Physiology II (3) Sensory, effecter and integrative physiology. Prereq: 3080.

4269 Comparative Animal Physiology Laboratory, II (1) Prereq: 3080 and permission of instructor. Coreq: 4260.

4280 Comparative Endocrinology (5) Comparative analysis of the physiology and morphology of endocrine glands in vertebrates and invertebrates. Their role and interaction in maintenance of the organism and species. Prereq: 3080 or 3920. 3 hrs and 1 (3 hr.) lab.

4290 Herpetology (4) Classification, distribution, life histories, collection and identification of amphibians and reptiles, primarily of local species. 2 hrs and 2 lab or field periods. (Not open to students with credit for 3210.)

4300 Ornithology (4) Morphology, physiology, behavior, reproduction, populations, evolution, field identification. 2 hrs and 2 labs or field periods. (Not open to students with credit in 3230.)

4310 Animal Cytology (4) Structure and function of cells and their components; emphasis on mitosis and meiosis. 2 hrs and 2 labs. Recommended: Biology 2110.

4320 Microtechnique (4) 3320 recommended. 2 hrs and 2 labs.

4369 General Genetics Laboratory (2) Mainly Drosophila experiments designed to illustrate basic principles of inheritance. Prereq: Biology 2110. 2 labs.


4410 General Parasitology (4) Morphology, taxonomy, and ecology of parasitic worms and protozoa, with emphasis on host-parasite relationships. 3 hrs and 1 lab. Prereq: Biology 2130 or permission of instructor.

4430 Medical Entomology (4) Distinctive morphological features, distribution, life histories, and control of arthropods that parasitize man or serve as vectors of human pathogens. Prereq: Agricultural Biology 3210 or Biology 2130. (Not open to students with credit for 3430.)

4450 Protozoology (4) Morphology, taxonomy, and physiology of protozoa in relation to fundamental biological concepts. Recommended: Biology 2120. 2 hrs and 2 labs.

4510 Freshwater Fishery Biology (4) (Same as Agricultural Biology 4510.)

4610-20 Comparative Animal Pathology (2, 2) Abnormal morphological changes and their causes. 4610—Cell and tissue changes. 4620—Organ, organ system, and organism changes. Recommended: 3080, 3320, 3060.

4619-29 Comparative Animal Pathology (2, 2) 4619—Cell and tissue changes. 4629—Organ, organ system, and organism changes. Coreq: 4810-20.

4660-70 Limnology (4, 4) 4660—Effects of origin, age, and location of lakes on their physical and chemical nature. 4670—Lake communities, productivity and pollution. Prereq: Chemistry 1110-20-30 and Biology 2130. Botany 1110-20-30 and Physics 1210-20-30 recommended. 2 hrs and 2 labs (4660); 3 hrs and 1 lab (4670). Must be taken in sequence, except with permission of instructor. Not open to students with credit in 3650 or 4650.

4700 Arachnology (4) Biology of spiders, mites, scorpions, and relatives. Prereq: 3110 or 3150. 2 hrs and 2 labs.

4720 Comparative Animal Behavior (4) Methods and principles. (Same as Psychology 4720.)

4729 Comparative Animal Behavior Laboratory (4) Laboratory and field studies. Coreq: 4720 (Same as Psychology 4729.)

4810-20-30 Insect Morphology and Taxonomy (4, 4, 4) 4810—Insect morphology of both generalized and specialized forms. 4820—Taxonomy of major orders. 4830—Taxonomy of minor orders and immature forms. Prereq for 4820-30: 3110, or permission of instructor. 2 hrs and 2 labs.

4940 Physiology of Exercise (4) Functions of body in muscular work: physiological aspects of fatigue, training, and physical fitness. Prereq: 2920-30 or 3080. 3 hrs and 1 lab. (Not open to students with credit for 3840.)

GRADUATE

5000 Thesis

5080 Graduate Research Participation (3)

5110-20-30 Special Problems (2, 2, 2)

5150 Zoological Bibliography (1)

5180 Fresh-Water Invertebrates (4)

5210 Plant Parasitic Nematodes (4)

5220-30-40 Advanced Vertebrate Physiology (4, 4, 4)

5260 Physiology of Hormones (4)

5270 Advanced Neuromuscular Physiology (5)

5280 Insect Physiology (4)

5290 Quaternary Problems (4)

5310-20 Seminar in Teaching of College Zoology (2, 2)

5350 Biometry (3)

5410 Advanced Parasitology (4)

5430 Advanced Medical Entomology (3)

5550 Advanced Ornithology (4)

5570 Animal Populations (3)

5610-20 Foundations of Radiation Biology (4, 4)

5630 Methods of Experimentation with Laboratory Mammals (3)

5660 Physiology of Development (3)

5670 Cellular Immunology (4)

5760 General Vertebrate Neuroanatomy (3)

5780 Radiation Physiology (4)

5820 Methods of Taxonomy (4)

5840 Aquatic Insects (4)

5860 Geographic Distribution of Animals (4)

5870 Insect Synecology (4)

6000 Doctoral Research and Dissertation

6110-20-30 Seminars in Cellular Biology (2, 2, 2)

6140 Seminar in Immunobiology (2)

6210-20-30 Seminar in Physiology (2, 2, 2)

6310-20-30 Seminar in Cytology (2, 2, 2)

6350-60-70 Seminar in Developmental Biology (2, 2, 2)
School of Nursing

Sylvia E. Hart, Dean

The School of Nursing at The University of Tennessee, Knoxville, was established in July, 1971, in response to a long recognized and well-established need for nurses prepared at the baccalaureate level and as a part of a state-wide comprehensive plan approved for The University of Tennessee system by its Board of Trustees and for the State by the Tennessee Higher Education Commission.

The program offered by the School of Nursing is fully accredited by the National League for Nursing. It combines the unique resources of the University with those of several cooperating health agencies in a manner which enables both faculty and students to become aware of and responsive to an evolving dynamic culture, rapid scientific and technological advances and changing concepts of health, of human beings and of society.

The baccalaureate nursing program has as its central focus and frame of reference human being, society and health. It is based on the belief that nursing has equal concern for the prevention of illness, the promotion of health, and the care of the sick.

General education courses, nursing courses and electives are organized in a manner designed to promote creative thinking and innovative approaches at both the theoretical and practical levels. General education courses are incorporated into the nursing curriculum at both lower and upper division levels. Certain aspects of general education, primarily in the natural and behavioral sciences, are prerequisite to any courses in the nursing major. Other supporting courses are taken concurrently with nursing courses.

Since nursing is a humanistic science and an art, nursing courses provide theoretical content which draws heavily from the theories and principles of related sciences and disciplines. This content is organized, integrated and synthesized in a manner which promotes a comprehensive understanding of the life process from conception through senescence. In nursing practice, this knowledge and understanding is combined with intellectual judgments, practical skills and human compassion. Opportunities to develop this kind of expertise in a variety of settings and situations are integral components of all nursing courses.

A broad base of general education, a thorough study of human behavior, emphasis on health maintenance and promotion and a strong family and community orientation are essential components of baccalaureate education in nursing. It is these characteristics which differentiate it from other types of basic nursing education.

Because of the expanding role of the professional nurse, the increasing complexity of health care delivery and the ever changing health needs of society, the goals of the program are to prepare graduates who are able to:

1. Assume beginning leadership positions in nursing in a variety of settings.
2. Work collaboratively with other health professionals.
3. Function as socially conscious and contributing citizens.
4. Pursue advanced education on either a formal or an informal basis.

GENERAL REQUIREMENTS:

In order to obtain a Bachelor of Science Degree in Nursing, 12 quarters of full-time study or their equivalent are required. Students may enroll in nursing courses following successful completion of 90 quarter hour credits in prescribed general education courses. These courses may be taken at The University of Tennessee or at any accredited junior or senior college or community college. One hundred eighty-nine quarter hour credits must be successfully completed in order to be awarded the Bachelor of Science in Nursing Degree.

NOTE: Students are advised to consult the University’s degree requirements as stated in the front section of this catalog as well as the requirements for the School of Nursing.

GRADING POLICY:

The Satisfactory-No Credit option is not permitted for any nursing course.

The minimum acceptable grade for any required Nursing course is a “C”. Any course in which a grade of “D” or “F” is achieved may be repeated once. If a grade of “D” or “F” is achieved on the second attempt, the student will be required to withdraw from the program. Any student who achieves a grade of “D” or “F” for more than two clinical nursing courses will be required to withdraw from the program even if the courses in which the grades of “D” or “F” were achieved have been repeated and a grade of “C” or better has removed the “D” or “F”.

If a student receives an “Incomplete” in a required nursing course the “Incomplete” must be removed before the student may enroll in any other required nursing courses.

If a student’s clinical laboratory performance for any nursing course is deemed unsatisfactory, the grade for that course will be an “F” regardless of any grades related to the theoretical component of the course. If the unsatisfactory clinical performance is characterized by dangerous, inappropriate or irresponsible behavior which actually or potentially places the patient’s or family’s welfare in jeopardy, the student will be required to withdraw from the program.
ADMISSION PROCEDURE

1) Nursing students must achieve a course grade of “C” or better in all required lower division courses, exclusive of electives.

2) When the student has completed all required lower division courses, having met the above stated grade requirement, he or she must submit a petition for admission to upper division courses to the Progression Committee in the School of Nursing. The Progression Committee will verify a record of each student who has submitted a petition in order to verify that the student has successfully completed all lower division courses required by the University of Calif. Nursing will then notify, in writing, those students who are eligible to begin upper division nursing courses.

Student petitions for admission to upper division courses must be submitted to the Progression Committee during the Spring Quarter which immediately precedes the Fall Quarter in which they expect to enter the upper division. The deadline for submitting a petition is the drop deadline date for each Spring Quarter.

3) Students who expect to enroll in The University of Tennessee, Knoxville School of Nursing, once they have completed lower division nursing courses, should contact the Student Advisement Coordinator at the UTK School of Nursing as soon as they begin their lower division courses. Transfer students who believe they have met lower division requirements should submit a petition to begin upper division courses as soon as they are admitted to the University.

4) Transfer students who have been accepted in a School of Nursing curriculum. Transcripts will be evaluated on an individual basis. Students are free to take proficiency or challenge examinations in order to determine whether it is necessary for them to enroll in a course or whether they have met those course requirements in another way.

5) Registered nurses seeking a baccalaureate degree in nursing must also apply for admission to the University and must be accepted on the same basis as others. They must complete all prerequisites and all required courses identified in the nursing curriculum. They may also take challenge or proficiency examinations in required courses whenever these are appropriate and available.

COURSE LOAD
The maximum credit hours per quarter allowed for any student without special permission is 18.

BACHELOR OF SCIENCE IN NURSING CURRICULUM

The following curriculum leads to the Bachelor of Science in Nursing Degree. A minimum of 189 quarter hours of credit is required.

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<tr>
<th>Sophomore</th>
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<tr>
<td>Zoology 2920-30</td>
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<td>Nursing 3150, 3330</td>
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TOTAL: 189 hours

*At least 18 of the elective hours must be in Humanities courses.

Faculty

Professor: S.E. Hart (Dean), Ph.D. New York.
Associate Professors: K.J. Kant, Ph.D. Illinois; B.M. Reid, M.S.N. Columbia.
Assistant Professors: S.S. Blowers, M.D. Rochester; M.T. Boynton, M.S.N. Emory; K.P. Conlon, M.S.N. SUNY at Buffalo; D.H. Goodfellow, M.S.N. SUNY at Buffalo; N.R. Hein, M.S.N. Medical College of Georgia; M.L. Jolly, M.S.N. Columbia University; V.M. Kraemer, M.S. Colorado; B.W. Lowe, M.S. Tennessee; J.P. McCurdy, M.S.N. Catholic University of America; J.N. Mozingo, M.S.N. Emory; D.R. Odle, M.S.N. Emory; H.E. Overton, M.P.H. Tennessee; K.L. Palmer, M.S. Woyna, M.A. Pierce, M.P.H. Tennessee; E.L. Rice, M.S.N. Emory; B.J. Riley, M.S. Ohio State; S.L. Sugg, M.S.N. Pennsylvania; J.W. Wagner, M.S.N. Yale.

10 Family Health Promotion (4) (Same as Nutrition 2710).

100 History and Philosophy of Nursing (3) Survey of the history of health care delivery and nursing practice. Examination of various philosophical systems which have had an impact upon nursing education and nursing practice.

301 Nursing Process (6) Theory and related laboratory experiences necessary for the development of basic nursing skills. Includes exploration of the expanding role of the professional nurse, the life process in man, the health illness continuum, determinants and indices of health, and the principles underlying the more common skills associated with nursing practice. 3 hrs, 1 lab.

302 Philosophy of Nursing (1) Overview of educational and practical trends; definitions of health; roles and functions of the professional nurse in health care delivery system.

311 Pharmacology (4) Biochemical and pharmacological effects of drugs and medications on the human body. Physiological and pathophysiological reactions and interaction effects between and among drugs. Prereq: Chemistry 1610-20, Zoology 2620-30.

3150 Family Health Nursing I (6) Nursing needs of families in childbearing. Principles of development. Principles of human growth and development and family dynamics. Laboratory experiments in a variety of clinical, community and home settings with focus on family health assessment with opportunity for planning, implementing and evaluating nursing care for women in various stages of uncomplicated pregnancy and for their newborn infants. 3 hrs, 3 lab. Prereq: 3010, Coreq: 3110. For nursing majors only.

3210 Acute Care Nursing I (8) Theory and clinical laboratory experiences related to nursing care of patients whose health problems require hospitalization. Physiological alterations and interrelationships which underlie or are associated with the more common, relatively uncomplicated acute illnesses of children and adults. Laboratory experiences with patients or their families. 3 hrs, 3 lab. Prereq: 3010, 3110. For nursing majors only.

3320 Human Responses to Stress and Illness (3) Adaptation and maladaptation of the behaviors of individuals to stress with emphasis on the maladaptive, theoretical and clinical factors which affect these responses. Course will cover a biophysical and psychological behavior from the sick role to severe psychopathology.

3330 Psychosocial Nursing (6) Nursing needs of patients and families whose primary health problems are psychosocial in origin. Emphasis on prevention, promotion and rehabilitation. Principles from the behavioral and developmental sciences are reinforced, expanded and modified. Laboratory provides opportunities to apply these principles in a variety of settings to the care of individuals and families with physiological and behavioral health problems. 3 hrs, 3 lab. Prereq: 3010, 3110, and 3220. For nursing majors only.

3410 Children and Health (4) Theory and laboratory experiences related to systematic nursing care of assessment of children and adolescents at various levels of health illness. Emphasis on normal growth and development and relationships with parents, children and health workers and responses to illness and hospitalization. Corequisites: 3010, 3110.

3710 Individual and Family Health Problems (4) (Same as Nutrition 3710).

4220 Acute Care Nursing II (6) The more serious and complicated health problems requiring hospitalization. Nursing needs of patients and their families. 3 hrs, 3 lab. Prereq: All 3000-level nursing courses or their equivalent. For nursing majors only.

4250 Family Health Nursing II (4) Nursing needs of families in crisis. Further exploration of theories of human growth and development and family dynamics with emphasis on both psychological and behavioral deviations which produce critical and complex family health problems. Laboratory experiences to further refine and expand the skills necessary for comprehensive family health assessment as well as to develop specialized skills necessary to provide quality nursing care to those patients and their families who are experiencing such health problems as complications of child bearing, congenital anomalies and developmental disorders. 2 hrs, 2 lab. Prereq: All 3000-level nursing courses or their equivalent. For nursing majors only.

4330 Nursing in the Specialties (2-4) Application of principles from human growth and development, family health, and nursing sciences to solution of nursing problems. Includes exploration of nursing intervention needed to maintain or restore homeostasis in clients experiencing selected physiological and/or behavioral deviations. Prereq: Permission of instructor.

4420 Long Term Nursing (6) Nursing needs of patients with long term congenital, developmental, or other chronic health problems. Focus on development of skills and knowledge necessary to achieve total patient and family involvement in rehabilitative process. 3 hrs, 3 lab. Prereq: All 3000-level nursing courses or their equivalent. For nursing majors only.

4440 Scientific Inquiry in Nursing (3) Introduction to language of research, types of research designs,
methodological approaches, sampling, data analysis and significance of findings. Evaluation of existing and ongoing nursing research studies. Prereq: Psychology 3150, senior standing. For nursing majors only.

4560 Nursing in the Community (6) Content and laboratory experiences with focus on health patterns, needs and problems of the community. Particular emphasis on the health assessment of small and large groups, comparison of variations in health needs and patterns within and between communities, involvement in preventive and promotive community health programs at the national, state and local levels. 3 hrs. 3 lab. Prereq: 4220 and 4250. For nursing majors only.

4660 Professional Nursing Seminar (3) Critical examination of legislative, legal, ethical, social and educational issues and trends which have immediate or long-range implications for professional nursing practice. Prereq: 4220 and 4250. For nursing majors only.

4760 Management of Health Care (6) Theories of administration, supervision, organization, management, and leadership as they apply to the delivery of health care services. Emphasis on role of the nurse in health care management and delivery. Laboratory experiences to develop skills necessary to function as an effective member of the health team. 2 hrs. 1 lab. Prereq: 4220 and 4250. For nursing majors only.

4770 Comprehensive Health Assessment (4) Principles and theories underlying health screening of children and adults, including health history, interviewing and physical examination. Practicum included. 2 hrs and 2 labs. (4 hrs. each). Prereq: all 3000-level nursing courses or their equivalent or permission of instructor.

4860 Independent Study in Nursing (3) In-depth study of some aspect of nursing in which student has developed special interest. Study is pursued independently, utilizing guidelines developed by the student with appropriate faculty guidance, supervision and evaluation. Prereq: 4220 and 4250. For nursing majors only.
Independent Departments

Department of Air Force Aerospace Studies (094)

Air Force ROTC Program

Professor of Air Force Aerospace Studies:
Colonel J.E. Hiteshew (Head), M.A. East Carolina.

Assistant Professors:
Major G.D. Johnson, M.B.A. George Washington; Major D.D. King, M.A. Central Michigan; Capt. J.D. Howell, Sr., M.B.A. Eastern New Mexico; Capt. S.A. Morris, M.S. Mississippi State.

GENERAL INFORMATION
Any student may enroll voluntarily in Air Force ROTC at the same time as registration for other undergraduate courses. There is no active duty obligation resulting from enrollment in the first two years of AFROTC classes unless the students is on AFROTC scholarship.

AIR FORCE ROTC SCHOLARSHIP PROGRAM
Scholarships are available to qualified students who enroll in the four-year cadet program. These scholarships cover full tuition, all fees, and reimbursement for all required books. In addition, cadets are paid $100.00 per month during the entire period of the scholarship. Scholarships are awarded to cadets on a competitive basis for two through four years at all levels of the Air Force ROTC program, including college freshmen, sophomores, and juniors. High school seniors should contact their guidance counselors to apply for four-year scholarships not later than 31 December each year. Applicants for two-, or three-year scholarships should contact the Professor of Air Force Aerospace Studies early in their freshman year on campus.

PURPOSE OF THE AIR FORCE ROTC
The Air Force ROTC Program is designed to qualify for commissions those college men and women who desire to serve in the United State Air Force. The program provides education that will develop skills and attitudes vital to the professional Air Force officer. Upon graduation from the University and the Department of Air Force Aerospace Studies, students are commissioned second lieutenants in the United State Air Force Reserve. Opportunities exist throughout the initial period of active duty for the graduate to receive a Regular Commission in the Air Force and to pursue commissioned service as a career.

UNIVERSITY CREDITS
The following credits are granted for Air Force Aerospace Studies work and are creditable toward a degree in some colleges. See respective PAS for further information.
Aerospace Studies 1000 series
(Freshman)—6 quarter hours per year
Aerospace Studies 2000 series
(Sophomore)—6 quarter hours per year
Field Training Academics (Sophomore)—6 quarter hours
Aerospace Studies 3000 series (Junior)—9 quarter hours per year
Flight Instruction Ground School—8 quarter hours
Aerospace Studies 4000 series (Senior)—9 quarter hours per year.

COURSES AVAILABLE
The first two years (freshman and sophomore) of the Air Force Curriculum are known as the General Military Course. The last two years of the curriculum (junior and senior) are known as the Professional Officer Course.

Flight training is offered free of charge to qualified male pilot applicants who are senior AFROTC cadets. The cadet receives twenty-five hours of flight instruction. University credit is granted for the Ground School portion of the Flight Instruction Program. Field Training is offered at Air Force bases across the country. Normally, this is the cadet’s first extended exposure to an Air Force environment. It is here that the cadet receives junior officer and leadership development training. Also at this time, the Air Force has an opportunity to personally evaluate each cadet as a potential member of its officer corps. Four-year ROTC members are required to complete a four-week session and two-year applicants attend a six-week session, adding two intensive weeks of academics comparable to the academics taught in Aerospace Studies 1000 and 2000 courses. Credit is granted for this two-week period, provided the student registers for credit, attends five one-hour pretraining session before attending Field Training, and attends two one-hour seminars conducted during the Fall Quarter following completion of Field Training.

ELIGIBILITY FOR THE PROFESSIONAL OFFICER COURSE (FOR PURPOSE OF EARNING A COMMISSION)
(Junior and Senior Years)
All cadets enrolled in the Professional Officer Course (junior and senior years) of the Air Force ROTC (for purpose of earning a commission) must:
a. Have either completed the General Military Course (freshman and sophomore years), or the off-campus, six-week Field Training; or have the required amount of prior military service.
b. Have two academic years of college remaining (either graduate or undergraduate).
c. Execute a written agreement with the Government to complete the program, contingent upon remaining qualified and in school; and to attend the off-campus, four-week Field Training between the sophomore and junior years and to accept an Air Force Reserve Commission, if tendered.
d. Be selected by the Professor of Air Force Aerospace Studies and the President of the University or his duly authorized representative.
e. Meet certain specified age, mental, and physical requirements.

EXEMPTIONS FOR PREVIOUS ROTC, PREVIOUS ACTIVE MILITARY SERVICE, OR CERTAIN CIVIL AIR PATROL AWARDS
A student may request exemption from portions of the General Military Course on the following bases: (1) previous honorable active military service in any branch of the Armed Services; (2) at least two years of high school ROTC; or (3) holds certain awards in the Civil Air Patrol. Exemption will be on an individual basis, and no University credit is
given for those hours or portions of the General Military Course exempted.

PAY AND ENTITLEMENTS

All cadets enrolled in AFROTC are furnished texts and uniforms by the Government through the Air Force Material Command, Office of the Chief of Transportation. Enrollees are required to deposit $35.00 as security to the University against loss or damage of uniforms or equipment for which the University is accountable to the Government. At the option of AFROTC, or when the student withdraws from the program, with the exception of a nominal fee covering the cost of shoes, the deposit is returned to the student provided he obtains a properly signed release from the prior uniform and equipment. Professional Officer Course cadets receive a subsistence allowance of $100.00 per month; not to exceed 20 months. In addition, they are paid mileage to and from Field Training, plus pay commensurate with active duty rates. A four-week Field Training is normally required between the sophomore and junior years for those students enrolled in the four-year curriculum. A four-week camp is required for two-year applicants.

ACTIVE DUTY COMMITMENTS

Commissioned graduates will be required to serve five years active duty with the Air Force after completion of flying or navigator training. Nonflying officers will be required to serve four years of active duty.

CONDUCT, ORGANIZATION, AND ADMINISTRATION

Air Force Regulations provide for the following: “For the effective conduct of instruction at civilian colleges and universities, subject to coordination with general college regulations and arrangements and the approval of the head of the institution, the Professor of Air Force Aerospace Studies will be empowered to draft the rules and orders relating to the organization, control, and training of the members of the AFROTC and the appointment, promotion, and reduction of Cadet Officers and Cadet Non-Commissioned Officers.”

The Department of Air Force Aerospace Studies sponsors the following organizations:

1. Arnold Air Society, a national honor society for outstanding AFROTC cadets.

2. Angles Flight, National auxiliary of the Arnold Air Society. Composed of selected cadets who are interested in enhancing the spirit, morale, and appearance of the Air Force ROTC Cadet Corps.

3. Sabre Team. Provides interested cadets an opportunity to serve as honor guard for all official Cadet Corps functions.

4. Air Commando Flight. Provides opportunity for additional military training for those cadets volunteering to participate.

Curriculum

1210-20-30 Air Force Aerospace Studies (2, 2, 2)

Supervises, directs, and gives instruction in the development and application of the Air Force. Emphasis on the Air Force Commands, the environment in which the Air Force operates and how the Air Force works with the Army and Navy, providing foundation upon which study of the Armed Forces and the Air Force can build. 1 hr and 1 hr lab (Leadership laboratory).

2210-20-30 Air Force Aerospace Studies (2, 2, 2)

Introduction to study of air power. Course is developed from a historical perspective starting before the Wright Brothers and continuing into the 1970's. 1 hr and 1 hr lab (Leadership laboratory).

UNIVERSITY ROTC PROGRAM

The University of Tennessee offers a voluntary ROTC program leading to appointment as an officer in the United States Army.

PURPOSE AND OBJECTIVE

The purpose is to provide professional education which will prepare students for appointment as commissioned officers in the Regular Army or the United States Army Reserve.

Objectives of the program are to provide students with an understanding of the fundamental concepts and principles of military art and science; to develop in them a basic understanding of associated professional knowledge, a strong sense of personal integrity, honor, and individual responsibility, and an appreciation of the requirements for national security; and to establish a sound basis for the students' future professional development.

ROTC draws young men and women for training from all geographical, economic, and social strata of our society as well as from many educational disciplines required for the modern Army. The program insures that men and women educated in a liberal and broad spectrum of American institutions of higher learning are commissioned annually into the officer corps.

ARMY ROTC SCHOLARSHIP PROGRAM

The army ROTC scholarship program offers financial assistance to outstanding young men and women in the Army ROTC program who are interested in the Army as a career. Each scholarship provides for free tuition, textbooks, and laboratory fees in addition to a subsistence allowance of $100 per month for the period that the scholarship is in effect. Scholarships may be awarded for either one, two, three or four years. High school seniors should contact their guidance counselors early in November or December of their senior year to apply for the four-year scholarship. One, two and three year scholarship applicants should contact the Professor of Military Science for further information. Certain other privately financed scholarships and grants are available to ROTC cadets.

UNIVERSITY CREDIT

The University of Tennessee grants the following credit for Military Science:

Military Science I — 3 quarter hours (MS 1110)

Military Science II — 6 quarter hours (MS 2110-20)

Military Science III — 12 quarter hours (MS 3110-20-30)

Military Science IV — 12 quarter hours (MS 4110-20-30)

Army ROTC Summer Studies — 6 quarter hours (MS 4000)

BASIC ACADEMIC REQUIREMENT FOR APPOINTMENT AS SECOND LIEUTENANT

An academic prerequisite for appointment as Second Lieutenant in the United States Army through the ROTC Program at The University of Tennessee, Knoxville, include the following minimum requirements. The sequence and selection of courses not specified will be determined by the adviser in concert with the head of the Department of Military Science. In cases where a student is pursuing a discipline which is narrowly
restricted (excluding Military Science Core Curriculum) with few elective options, any conflict in scheduling or course selection will be resolved in favor of academic degree requirements.

MILITARY SCIENCE CORE CURRICULUM

Basic Military Studies
MS 1110 Fundamentals of Military Organization and Leadership and Management...3
MS 2110-20 Applied Leadership and Management (3, 3).........6

Advanced Military Studies
MS 3110-20-30 Advanced Leadership and Management (4, 4, 4)......12
MS 4000 Army ROTC Summer Studies .6
MS 4110-20-30 Seminar in Leadership and Management (4, 4, 4)....12

TOTAL: 39 hours

Substitution
The following courses may be substituted for military courses with permission of adviser and ROTC department head:
- Industrial Management 4460; History 4380 for MS 4130.
- Certain other upper division courses may be substituted with permission of PMS.

OTHER ACADEMIC COURSES
Since each degree field at UT is designed to provide a well-balanced education in diversified fields, no specific hour requirements is levied for courses outside the Military Science Core Curriculum.

Freshman and Sophomore Years
The University requirements for subjects in the field of communications (English grammar, composition, speech, etc.); physical, natural and biological sciences; humanities; social sciences; and applied sciences (engineering, mathematics, computer science, etc.) will satisfy the Army's desire for its officers to have a well-rounded liberal education.

Junior and Senior Years
The cadet is expected to pursue at least one quarter of upper division work in each of two different divisional course areas (other than major) as follows: mathematics; computer sciences; natural sciences; anthropology; economics; political science and international relations; history; psychology; sociology; foreign languages; management; urban studies; mass communications; or accounting.

Students seeking an Army commission are permitted to substitute military studies for non-elective electives, Social Studies, and/or Humanities to satisfy degree requirements. This substitution is at the sole discretion of the Deans of the separate Schools and Colleges.

ENROLLMENT AND CONTINUANCE REQUIREMENT
The general requirements for enrollment and continuance in the ROTC program are:
1. Basic Course—MS I and II
   a. Be a citizen of the United States.
   b. Be physically qualified.
   c. Be not less than fourteen years of age and have not reached twenty-three years of age at the time of enrollment.
2. Advanced Course—(MS III and IV)
   All cadets applying for enrollment in the Advanced Course Army ROTC who seek a Commission must:
   a. Have either completed the Basic Course, or an off-campus six-week Field Training Course, or have the required amount of prior military service.
   b. Have two academic years of college remaining (either graduate or undergraduate).
   c. Be enrolled as a full-time student, either at UT or at a nearby institution in a cooperative program.
   d. Meet military screening and physical requirements.

Regularity enrolled students who meet the academic prerequisites and do not desire a commission may take individual courses as electives with the permission of the department head and their academic adviser.

ADVANCED MILITARY STANDING FOR MILITARY TRAINING

On the basis of previous honorable active military service in any branch of the Armed Services, or participation in the Junior ROTC Program at Secondary Schools, a student may request exemption from portions of the Basic Course. Exemption allowed will be determined on the merit of academic adviser.

PROFICIENCY EXAMINATIONS

Students may apply for proficiency examinations in Military Science 1110, 2110 and 2120. These examinations are offered mainly for graduates of the 6-weeks of intensive training at the Basic Camp at Fort Knox, Kentucky. A student applying for a proficiency examination should present evidence that he or she has developed those abilities and attitudes expected of a student who has taken the course involved. The application must be approved by the department head.

EMOLUMENTS

All students enrolled in the Army ROTC program are furnished certain texts and uniforms by the Army through the Military Property Officer at UT. Students enrolled in the ROTC Advanced Course receive an allowance of $100 per month during the academic year. While attending the ROTC summer studies, each cadet receives approximately $480.00 plus meals, clothing, and requisite special equipment.

SELECTIVE SERVICE STATUS

The Selective Service laws provide for certain deferment (draft exemption) for students seeking a commission in the Army through the ROTC curriculum.

COURSES AVAILABLE

The curriculum of the Army ROTC program is designed to qualify the cadet for appointment as an officer. Selection for assignment to the various branches of the Army is based upon:
- The personal interests of the cadet.
- The major course of study.
- Academic accomplishment.
- Leadership potential.
- The needs of the Service.

Under this system a cadet may be commissioned in any branch for which he or she is qualified and in which a need for officers exists. After graduation and commanding officer, the cadet will attend a service school for further specialized military training which will qualify him or her for the Branch to which he or she is assigned.

Flight training, which includes 35 hours of ground instruction and 35 hours of flight instruction, is offered to physically qualified senior ROTC cadets. The cadet may qualify for a Federal Aviation Agency approved private pilot's license. Successful completion of the flight training course is offered at no cost to the cadet.

Curriculum

1110 Fundamentals of Leadership and Management
(3) Development of American military institutions, policies, experiences and traditions in peace and war from colonial times to present. Historical examples of effective and ineffective leadership and application of principles of war. Practical exercise in leadership development.

2110 Applied Leadership and Management

2120 Applied Leadership and Management

3110-20-30 Advanced Leadership and Management
(4, 4, 4) Applied leadership to include operation of the military team, electronic communications, land navigation, small unit leadership and internal defense/development. Two field trips. Leadership Laboratory: Philosophy of organization and operation of military in tactical and administrative roles. Prereq: 2120.

4000 Army ROTC Summer Camp (6) Six-week encampment (forty-four hours of instruction are scheduled each week) is a prerequisite to commissioning and normally scheduled upon completion of 3130. Camp is conducted at an Army installation with instruction presented by ROTC faculty from colleges and universities. Course of instruction is an extension of leadership and management curricula. Prereq: 3130.

4110 Theory and Dynamics of the Military Team (4) Organization and management of division military team, development and function of military staff, and coordination and planning of the military team. Leadership Laboratory: Staff and Tactical Planning, presentation of briefings, preparation, execution
and supervision of plans. Prereq: 4000 or permission of instructor.

4120-30 Seminar in Leadership and Management (4, 4) Analysis of selected leadership and management problems involved in unit administration, military justice, Army Readiness Program, and officer-enlisted relationships. Leadership Laboratory. Prereq: 4110.

4140 Flight Instruction (9) Flight and ground instruction including fundamentals of air discipline, solo, dual, basic instrument and cross-country flying, meteorology, aerial navigation and radio procedures. Prereq: Enrolled in 4110 or permission of Department Head and physically qualified according to Army standards.
Division of Continuing Education

Vice President for Continuing Education:
Charles H. Weaver, Ph.D. Wisconsin
Associate Vice President for Continuing Education:
Kenneth D. Wright, Ph.D. Ohio State

The Division of Continuing Education is responsible for the operation of all statewide continuing education programs, both on campus and off campus. The Division is concerned with policies and programs required for effective offering of educational opportunities, including attainment of college level degrees, to qualified students of all ages and walks of life who pursue knowledge outside the traditional on-campus setting. All continuing education programs of the University are coordinated through the Division.

Information concerning continuing education programs of the various campuses is set forth in the respective catalogs. Information on continuing education programs of The University of Tennessee, Knoxville, is given on page 85 of this catalog.

Joint University Center (UT/MSU)
Coordinator:
H. Sammons, B.S. Tennessee
Instructors (full time only):
P. Breland, M.A. Alabama; E.M. Brown, M.A. Memphis State; E.K. Miller, M.A. Alabama.

The Joint University Center is administered cooperatively by The University of Tennessee and Memphis State University, and the Division has coordinative and developmental responsibilities only.

Center for Extended Learning
Director:
C.W. Hartsell, Ed.D. Tennessee
Assistant Directors:

CLEP Open Center: Administers
College Level Examination Program tests each month.

College Credit for High School Seniors:
Coordinated in cooperative with the State Board of Education.

Conferences for specific clientele statewide.

Independent Reading: The student should contact the academic department for the desired reading course and then register for credit through the CEL.

Independent Study: Extends instructional services of the University from all campuses to the citizens of the state. Courses may be started at any time.

College Credit Courses: The same courses with the same instructors as in resident classes, offering full degree credit.

College Entrance Courses: To remove entrance deficiencies or to complete high school requirements.

Non-Credit Courses and Certificate Programs: In areas of general interest and in technical, business, and professional fields.

Statewide Media Programs: Courses for credit by cable and open-circuit television, radio, and newspapers.

Undergraduate Cooperative Education Program for students desiring to work alternate quarters while going to school.

For information on enrollment, costs, books, and credit, write: Center for Extended Learning, 447 Comm. & Univ. Ext. Bldg., The University of Tennessee, Knoxville, Tennessee 37918. Telephone: (615) 974-5135

Head Start State Training Office
Director:
L.C. Biggs, M.S. Wisconsin
Assistant Director:
M.S. Griesemer, M.S. Ohio State
Coordinators:
K.M. Albrecht, M.S. Tennessee; B.A. Chervin, B.S. Tennessee.

Training Officers:
S.L. Bell, M.S. Howard; C.M. Cameron, B.A. Tennessee; D.A. Henry, M.P.S. Western Kentucky; N.W. Moore, B.S. Northwestern.

Supervisory Training Coordinator at UTC:
P.J. Printz, M.A. Missouri.

Coordinator Supplementary Training Program:
V.H. Galyon, M.S. Tennessee

Research Competency Program:
W.J. Judd, M.S. Tennessee.

Leadership Development Program
Training Officers:
R. Catey, M.S. Southern Illinois; R.C. Majkut, B.S. Rhode Island; J.B. Sims, Jr., B.A. Davidson College.

The State Training Office of Head Start is a program of services to the twenty area Head Start Programs in Tennessee. The services include organizing training programs for personnel of the various local programs, development of special workshops, publication of a newsletter, and organizational work with parents of children in the Head Start program. This office provides training through the coordination of the Leadership Development Program, Head Start Supplementary Training and the State Training Office grants.
Library Services

Director:
D.J. Harkness, M.A. Columbia.

This is a statewide service, administered by the system Division, and has four major facets.

Package Library Service provides material for use by clubwomen, teachers, librarians, and other individuals in preparing talks and papers and in doing special study and reference work. Books from the Extension Library and the University Library are loaned to individuals within the state and to students taking courses by correspondence. Study club outlines, bibliographies, suggestions for club yearbooks, reading lists, and information-reference services are provided.

Club Program Service includes a series of program manuals on historical, literary, and bibliographical subjects designed to help clubwomen, teachers, and librarians in their work and individuals in their reading and study in informal adult education.

Drama Loan Service makes it possible for directors of drama in schools, colleges, universities, Little Theatres, and church drama groups to borrow copies of one-act and three-act plays and material for special days for reading and examination. Information on sets, costumes, and the original Broadway productions, along with material on playwrights, actors, and actresses, is also available.

School Program Service includes aids to teachers, librarians, and directors of speech and drama through package libraries, drama loans, and production aids.

Publications

Publications are a direct means of extending to Tennesseans the information resulting from studies by University departments and various extension materials designed for general enrichment of civic, cultural, and economic understanding. The University of Tennessee Continuing Education Series is used as an outlet for these materials. A list of available titles, most of them free to Tennessee residents, may be had upon request.

Radio Services

Director:
R.A. Shirley, M.A. Tennessee.

Associate Director:
N.L. Dryer, B.M. Indiana.

Staff:

This department conducts an extensive statewide program of adult education and information by radio, offering hundreds of different cultural and educational experiences. Its activities may be grouped into three categories:

(1) WUOT, the University's 100,000-watt stereo FM station, operating eighteen hours a day every day of the year, with a high quality and varied program of music, public affairs, discussion, drama, and documentaries from local, state, national, and international sources. The station is a member of the National Public Radio Network.

(2) A network of over 150 Tennessee radio stations which provide without charge the time for over 22,000 quarter-hour programs on subjects of public interest, with production, duplication on audio tape, and distribution accomplished by the department. Its close contact with all broadcasting, and its staff and facilities equip the department ideally for work with the other campuses in the production, duplication, and distribution of audio materials for educational use. It will upon request assist all of the campuses in communications development.

(3) A technical service which includes highspeed duplication of reel-to-reel or cassette audio tapes for university departments, recording conferences and workshops, audio consulting, and educational radio consulting.

Teaching Materials Center

Director:
J.T. Benton, M.S. Tennessee.

This department provides educational films for the public schools, colleges, churches, civic clubs, and other interested organizations on a wide variety of subjects, ranging from agriculture to technical material on the space age, and also films for industrial use. Film councils throughout the state encourage the use of these materials for forum discussions and general adult education. An advisory service on effective film use is also provided by the department. Films, equipment, and other services are made available to the academic faculty for classroom instruction and experimentation; and educational films are provided for the students both on and off campus for student teaching, previews, and special projects.

Television Services

Director:
F.A. Lester, M.A. Tennessee.

Production Manager:
W.R. Terry, B.A. Tennessee.

Chief Engineer:
D.L. Bower.

Coordinator, VERM:
E.D. Wood, B.S. Tennessee.

Producers:
S.H. Gordon, B.S. Tennessee; W.P. Wilson, B.S. Tennessee.

Television services includes the complex closed-circuit administration and production work which results in many lower division resident classes being taught to some 8000 students by television on the campus; the production of 196 half-hour programs each year on WSJK-TV, the State Department of Education station in East Tennessee; and Instruction for three resident courses in broadcasting for the College of Communications. The department jointly administers an off-campus secondary school accelerated entrance program by television tape and the Video Tape Electrowriter Remote Mode program of graduate studies in engineering.
The books, periodicals, non-print and any other materials contained in the 6 UTK Library units are available to all students, faculty and staff of the University of Tennessee, Knoxville. Included among the holdings are 1,229,423 books, more than 698,000 microforms, 3,000 audiotapes, 300 slide carrousels, 100 video-cassettes, 2591 phonodiscs, more than 1.5 million manuscripts, and various ephemeral materials.

The library in its 6 locations is open to all students and faculty, regardless of their fields of study, The James D. Hoskins Library at 1401 West Cumberland is the main library where administrative and technical services offices are located. The dictionary catalog, listing the library holdings for the entire campus, is in Main, as are the general and research collections, comprehensive reference, interlibrary services, documents, 4000/5000 level reserves, newspapers, and Special Collections, the last a repository of local and regional source materials.

The John C. Hodges Undergraduate Library, on Volunteer Boulevard at Andy Holt Ave., has a limited collection of 150,000 volumes selected to meet the needs of students in undergraduate courses. Reserve materials for 1000-3000 level courses are available in this library as is a large collection of audiotapes, slides, and video-cassettes.

Other libraries serving specialized areas are: Agriculture in Morgan Hall; Law in the Taylor Law Building; Music in the Music Building; and Science/Engineering in Dabney-Buehler.

The libraries are administered by a director, three associate directors (for public, technical, and administrative services) and a number of department heads. Questions and comments are invited in person or through the suggestion boxes located in each library. Continuing evaluation and building of the collections is the responsibility of the Collections Development Librarian. While most materials are selected by faculty, recommendations for purchase are invited from all students and staff. Copies of Your Libraries, the library handbook for students and faculty, are available at all libraries.
Public Service

Vice President for Public Service:
C.E. Smith, A.M. Peabody
Associate Vice President for
Public Service:
A.B. Biscoe, Jr., Ph.D. Florida

Institute For Public Service

Executive Director:
R.S. Hutchison, M.B.A. Chicago
Assistant Director:
L.R. Rogers, B.S. Tennessee
Manager of Information Services:
T.B. Ballard, B.S. Tennessee
Manager of Program Development and Evaluation:
B.S. Barker, M.A. Texas
Manager of Request-for-Service System:
W.S. Evans, B.S. Tennessee
Business Manager:
G.W. Baskette

The Institute for Public Service was established in 1971 within the office of the Vice President for Urban and Public Affairs. The purpose of the Institute is to coordinate and promote public service activities throughout the University system, excluding services provided through the Institute of Agriculture.

The basic goal of the University public service effort is to bring to the citizens of Tennessee—their business, their industry, and their governments—the problem-solving capabilities uniquely embodied within their statewide university system.

Public service at The University of Tennessee includes all services offered to those outside the University, including teaching in certain non-degree situations, technical assistance, and applied research which is conducted specifically at the request and for the benefit of non-University organizations in Tennessee.

The Institute provides: (1) a system-wide focal point for urban and public services; (2) a means to coordinate the various system-level public service activities; and (3) an organizational base for communication and program development that relates to both outside service clientele of the University and the campuses of the University system.

The Institute is headquartered in Knoxville and maintains regional offices in Chattanooga, Columbia, Cookeville, Jackson, Johnson City, Martin, Memphis and Nashville.

The Institute is comprised of the system-level public service operations listed below.

County Technical Assistance Service

Executive Director:
J.H. Westbrooks, Jr., B.S. Tennessee
Assistant Director for Legal Services:
T.W. Graham, J.D. Tennessee
Assistant Director for Administration:
T.D. McNulty, M.A. Austin Peay.
Executive Assistant to Director:
D.A. Rizor, M.A. Arkansas

Legal Specialists:
W.C. McIntyre, J.D. YMCA Law School, C.D. Wiggins, J.G. Tennessee
Senior Law Enforcement Consultant:
G.L. White
Law Enforcement Consultant:
J.M. Gardiner, B.S. East Tennessee State

Financial Specialist:
S.R. Pelizzari, B.S. Tennessee
Engineering Specialist:
C.R. Phebus, M.S. Vanderbilt

County Technical Assistance Service:
Government Research Analyst:
W.E. Bragg, M.P.A. Middle Tennessee State
Communications and Publications Specialist:
L.D. Beach, B.A. University of the South

County Field Advisors:

The County Technical Assistance Service was established by the Board of Trustees at the 1973 mid-year meeting and began operation September 1, 1973. Establishment of the Service was authorized by the 88th General Assembly for the purpose of providing "studies and research in county government, publications, educational conferences and attendance thereat, and to furnish technical, consultative and field services to counties of the state in problems relating to fiscal administration, accounting, tax assessment and collection, law enforcement, improvements and public works, and in any and all matters relating to county government. This program shall be carried on in cooperation with and with the advice of counties of the state acting through the Tennessee County Services Association and its Board of Directors, which is recognized as their official agency or instrumentality."

The Service is headquartered in Nashville, with regional offices in Chattanooga, Columbia, Cookeville, Jackson, Johnson City, and Knoxville.

Municipal Technical Advisory Service

Executive Director:
V.C. Holiday, Ph.D. Syracuse.
Assistant Director:
J.P. Hartman, M.P.A. Tennessee.
Specialists Consultants:
J.M. Crabtree, Jr., B.S. Tennessee Tech (Personnel); J.W. Crawford, B.A. Miami (Personnel); J.A. Fitzgerald, B.A. Memphis State (Police); W.K. Jones, B.S. Tennessee Polytechnic (Finance and Accounting); J. Kersh, B.S. Tennessee (Municipal Information); F.E. Kirk, B.S. in C.E. Southern Methodist (Public Works); J.H. Leuty, B.S. Tennessee Polytechnic (Finance and Accounting); A.C. Lock, Jr., B.S.C.E. Oklahoma State (Public Works); R.A. Loveace, M.P.A. Kansas (Intergovernmental Affairs); J.A. Fitzgerald, B.A. Memphis State (Police); G. Musick (Police);
Tennessee's industries informed about the supply of and demand for trained qualified personnel; and by cooperating with the Governor's Staff, Assistant for Industrial Development and the Tennessee Industrial and Agricultural Commission in carrying out its duties."

This statewide program encourages and assists managers of Tennessee firms to draw upon the intellectual resources of the colleges and universities to upgrade the firm's performance. Field engineers experienced in manufacturing operations take the initiative in encouraging the upgrading and expansion of management in their plant environment.

The Center for Industrial Services is headquartered in Nashville. Regional offices are maintained in Chattanooga, Columbia, Cookeville, Jackson, Johnson City, Knoxville, Martin and Memphis.

**Center for Government Training**

Executive Director: D.M. Sullivan, M.P.A. Southern California.
Associate Director: A.D. McLee, Jr., Washington, D.C.
Assistant Directors: E.K. Smith; J.W. Fort, M.A. Austin Peay; G.T. Himes, Jr., B.S. Belmont.
Program Administrator: M.D. Traughber, B.S. Middle Tennessee State
Regional Managers: R.H. Cummings, Jr., B.S. Tennessee; D.J. Edmondson, B.S. Tennessee; P.J. Gipson, B.S. Belmont; A.C. North, Jr., B.S. Middle Tennessee State.
State Program Consultant: J.F. Roop, M.S. Indiana.

The Center for Government Training has responsibility for providing professional assistance and establishing training and career development programs for state and local government employees throughout the state. Headquarters are maintained in Nashville, but decentralized programs are developed in various sections of the state. The Center is charged with identifying and analyzing needs for public service education and training at the state and local levels in Tennessee.

The Center provides professional assistance and conducting programs for training of public agency employees, working with institutions of higher education in the state and other educational facilities. The Center acts as a clearinghouse for information relative to public service personnel education and training programs. In addition, the Center serves as the central administrative agency in a state-wide local government training network which includes for campuses of the University and the six senior institutions in the Board of Regents system.

**Technical Assistance Center**

Director: J.T. Brothers, B.S. Tennessee.
Associate Director: J.R. Annis, M.B.A. Inter-American University.

The Technical Assistance Center was created in March, 1970. It is funded in part by a grant from the Economic Development Administration of the U.S. Department of Commerce.

The Center gives assistance to small business or industry, prospective business or industry, development districts, local governments, or local economic development groups in activities which will promote the economic development of the eastern portion of the state. Priority is given to projects within 35 counties which have been designated by EDRA as Redevelopment Areas.

Assistance given includes: economic feasibility studies, market studies, management review and assistance, and management seminars and conferences. The technical work of the Center is performed by faculty and students of the University.

**Civil Defense Education Program**

Director: H.V. Price, M.S. Tennessee.

The purpose of the Civil Defense Program is to assist the state, county and municipal governments throughout Tennessee in the development of operational readiness to cope with disasters, natural or man-made. Activities include courses, conferences, consultations, workshops, simulation exercises and surveys designed specifically to meet local needs. Participants and enrollees, generally, are local government officials, civil defense staff personnel, community agency leaders, emergency services personnel, and representatives from industry and private institutions.

Training requirements are established cooperatively with the State Division of Civil Defense and Emergency Preparedness, and the Defense Civil Preparedness Agency, Department of Defense.

**Title I, Higher Education Act of 1965 (State Agency)**

Director: P.R. Martin, Jr., A.B. Western Carolina.
Administrative Assistant: N.J. Harrell, M.S. Tennessee.

The Governor of Tennessee has designated The University of Tennessee as the State Agency to administer the Statewide Community Service and Continuing Education Program under Title I of the Higher Education Act of 1965. Within the University the State Agency for Title I was established to administer this adult education program.

The Community Service and Continuing Education Program under Title I authorizes the allotment of federal funds to the States for the purpose of strengthening community service and continuing education programs of colleges and universities in order to assist people in the solution of community problems, with particular emphasis on urban and suburban problems.

The Governor and the President of UT have jointly appointed a 16-member State Advisory Council for Title I to work with the State Agency in implementing this program. This Council is composed of leaders from higher education, business, government, and the community.

Through the Tennessee State Plan and annual program amendments, the State
Agency for Title I, with the advice of the Advisory Council, establishes priorities among problem areas, approves all project proposals from colleges and universities, and allot funds to qualified institutions of higher education.

**Environment Center**

Director:
J.H. Gibbons, Ph.D. Duke.

Associate Director:
R.A. Bohm, Ph.D. Washington (Missouri)

The Environment Center was created to encourage and support UT faculty and students to become involved in interdisciplinary studies to provide alternative solutions to problems related to energy and the environment. The Center provides assistance to faculty interested in developing research and public service projects; manages research and development projects that involve several disciplines; and assists Tennessee government and industry in specific problems related to energy and environment. It also participates in the Statewide Consumer Education Program, especially in developing material.

Projects include the following: environmental and human costs of coal production; solar energy utilization in buildings; energy conservation in buildings and industry; and regional solid waste management and resource recovery.

The Center is supported jointly by the Institute for Public Service and UT, Knoxville through the Office of the Vice Chancellor for Graduate Studies and Research.

**Transportation Center**

Director:
K.W. Heathington, Ph.D. Northwestern.

Associate Directors:
F.W. Davis Jr., Ph.D. Michigan State; R.A. Mundy, Ph.D. Pennsylvania State.

Assistant Directors:
D.H. Jones, M.S. Tennessee; R.L. Perry, M.S. Tennessee.

Assistant to Director:
C.P. Mauney, Ph.D. Tennessee

The mission of the Transportation Center is to encourage and facilitate interdisciplinary research in all phases of transportation, to provide public service of a transportation-related nature, to manage the research program for the Tennessee State Department of Transportation, and to manage highway safety research for the Governor's Highway Safety Program.

The Center works with all modes of transportation, including water, rail, air, highways and mass transportation, and with the movement of both goods and people in consideration of transportation's impact of the total environment as well as the technical aspects of a problem.

The Center is supported jointly by the Institute for Public Service and UT, Knoxville through the Office of the Vice Chancellor for Graduate Studies and Research.
THE UNIVERSITY OF TENNESSEE GENERAL SUMMARY

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  Ex-Officio ........................................................................... 5

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  Vice Presidents .................................................................... 8
  Assoc./Asst. Vice Presidents .............................................. 7
  Chancellors ........................................................................... 5
  Vice Chancellors and Provost ............................................ 17
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<th>Chattanooga</th>
<th>Knoxville</th>
<th>Martin</th>
<th>Nashville</th>
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*a includes three vice presidential titles held by one person.
*b includes two vice presidents.
*c includes UTMRC.
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<th>Freshman</th>
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<td>Practice</td>
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<td>560</td>
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*Note: Full-time student count.*
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