cussion of normal and deviant behaviors. Prereq: Admission to doctoral program in Clinical Psychology or consent of instructor.

5883 Phenomenological Approach to Clinical Psychology (3) Normal development and psychopathology, emphasis on existential theory. Comparison of underlying assumptions of different theories. Prereq: Admission to doctoral program in Clinical Psychology or consent of instructor.

5889 Adult Psychological Assessment (3) Basic concepts and techniques of adult assessment, including intelligence tests and personality tests. Prereq: Admission to doctoral program in Clinical Psychology or consent of instructor.

5981 Seminar in Object Relations Theory (3) European and American conceptions of normal and psychopathological development of object relations, practical significance for psychotherapy and psychoanalysis. Prereq: Admission to doctoral program in Clinical Psychology or consent of instructor.

5982 Descriptive Psychopathology (3) Diagnostic criteria of the DSM-III. Examples from written case histories and recorded interviews. Prereq: Admission to doctoral program in Clinical Psychology or consent of instructor.

5601 Dynamics of Psychopathology (3) Psychodynamic view of etiological factors and symptoms of major psychoses, neuroses and adjustment disorders. Prereq: Admission to doctoral program in Clinical Psychology or consent of instructor.

5610-20 Psychology of Learning (3, 3) Prereq: 3210 or Educational Psychology 3730. F: W

5660 Neural Basis of Behavior (3) Neuronanatomy: bases and symptomatology of neurological syndromes encountered in clinical psychology. Prereq: M.A. in psychology or equivalent.

5860 Psychopharmacology (3) Review and evaluation of pharmacology as it relates to psychology. Prereq: Consent of instructor. Sp, A

5702 Community Psychology (3) Psychological aspects of research, evaluation, intervention, and planning in community psychology, systems for primary and secondary prevention, planning of social systems, and relevance of federal policies. Prereq: Consent of instructor.

5750 Ethological Psychology (3) Evolutionary and physiological basis of comparative psychology and implications for human behavior. Prereq: Introduction to biology and graduate standing.

5760 General Vertebrate Neuroanatomy (3) Lecture and laboratory dealing with structure and function of central and peripheral nervous system. Prereq: 4716, 4719, or consent of instructor. (Same as Zoology 5760.)

5769 Advanced Techniques in Physiological Psychology (3) Animal and human laboratory procedures central to research in physiological psychology. Prereq: 4710, 4719, and consent of instructor. May be repeated with consent of instructor.

5790 Seminar in Psycholinguistic Concepts in Speech Pathology (3) (Same as Speech Pathology 5790.)

5850 Child Psychological Assessment (3) Introduction: behavioral observation, questionnaires, techniques, objective tests, projective techniques. Prereq: 5100 and Admission to Clinical Training Program or consent of instructor.

5860 Interpersonal Assessment (3) Focus on objective tests such as MMPI and Leary System of interpersonal diagnosis. Prereq: 5580 or equivalent and admission to Clinical Training Program or consent of instructor.

5869 Practicum in Psychological Appraisal (3) Prereq: Admission to doctoral program in Clinical Psychology or consent of instructor. May be repeated. Maximum 8 hrs.

5870 Projective Techniques in Assessment (3) Diagnosis of personality disorders using case history and mental status; projective techniques. Prereq: 5601 or equivalent and admission to Clinical Training Program or consent of instructor.

5879 Practicum in Psychological Appraisals (3) Prereq: 5869.

5950-60 Theory and Practice of Consultation (3, 3) Issues in consultation, models of consulting process, and evaluation of consulting techniques. Must be taken in sequence. Coreq: 5956-69 and consent of instructor. (Same as Educational Psychology 5950-60.) W: Sp

5959-69 Practicum in Psychological Appraisal (2, 2) Coreq: 5850-60-70. Prereq: Consent of instructor. Must be taken in sequence. (Same as Educational Psychology 5959-69.) S/NC only. W: Sp

6000 Doctoral Research and Dissertation (3-15) P/NP only: E

6050 Seminar on Methods of Social Research (3) (Same as Sociology 6050.)

6089 Internship in Community Psychology (1-6) Supervised employment at departmentally approved internship sites. Prereq: Consent of instructor. May be repeated. Maximum 12 hrs. S/NC only.

6099 Internship in School Psychology (1-6) Supervised employment at departmentally approved internship sites. Prereq: Consent of instructor. May be repeated. Maximum 18 hrs. S/NC only.

6100 Seminar in Community Psychology (3) Evaluation, research, intervention, and systems for deliveries of services in communities. Prereq: 5702.

6150 Seminar in Program Evaluation (3) Techniques for designing and conducting research to evaluate effectiveness of programs. Prereq: Statistics 5050-60-70 or equivalent and consent of instructor.

6159 Practicum in Program Evaluation (3) Designing, conducting, and analyzing results of program evaluation in schools or community setting. Prereq: 6150 and consent of instructor.

6250-60-70 Seminar in Industrial and Organizational Psychology (3, 3, 3) (Same as Management 6250-60-70).

6310 Seminar in Motivation and Emotion (3)


6320 Seminar in Research Methods (3)

6330 Seminar in Learning (3)

6340 Seminar in Developmental Psychology (3)

6350 Seminar in Thinking (3)

6370 Seminar in Theoretical Psychology (3)

6380 Seminar in Industrial Organizational Psychology (3) (Same as Management 6380.)

6385 Hypnosis and Imagination (3) Demonstration and practice of hypnotic induction methods, survey of clinical applications of hypnosis and imagery. Prereq: Consent of instructor.

6390 Seminar in Psychotherapy (2) Treatment of current case, focusing upon psychodynamic, psychopathology, and therapeutic techniques employed. Prereq: Consent of instructor.

6395 Seminar in Assessment (3) Seminar for advanced graduate students in clinical psychology, to deal with current research on methods of evaluating the status of individuals seeking clinical aid.

6400 Seminar on Changing Concepts in Clinical Psychology (3) New developments in field in relation to their impact on experimentation and systems of thought. Prereq: M.A. in psychology or equivalent.

6405 Seminar in Psychopharmacology (3) Prereq: Consent of instructor.

6410-20-30 Psychotherapy (3, 3, 3) Theories and principles. Prereq: Consent of instructor.

6411 Seminar in Group Processes (2) Theory and practice of group therapy; communication skills. Prereq: Admission to Clinical Training Program or consent of instructor.

6412 Seminar in Inference in Psychotherapy (3) Uses of actuarial and inferential data for assessment of strategies and tactics used in psychotherapy. Prereq: Admission to Clinical Training Program or consent of instructor.

6413 Seminar in Techniques of Behavior Modification (2) Practical applications of systematic desensitization, operant conditioning, aversive conditioning and related techniques for modification of behavior disorders. Prereq: Admission to the Clinical Psychology Program.

6414 Seminar in Marital and Family Therapy (2) Evaluating marital and family problems; methods of investigation. Psychodynamic, behavioral, and systems theory concepts. Prereq: Admission to the Clinical Psychology Program.

6415 Introduction to Psychoanalytic Psychotherapy (3) Prereq: Consent of instructor.

6429 Assessment Laboratory (2) Coreq: 5589, 5869, 5870, or 5879. May be repeated. Maximum 12 hrs.


6450 Advanced Psychometrics (3) Construction and standardization of psychological tests, questionnaires, and rating scales; theory of errors or measurements; item analysis, scaling, equation, and norms development. Prereq: 4650, 5440, and 5500. May be repeated. Maximum 9 hrs.

6491 Field Placement (1-4) Required of all students second year and beyond in full-time residence in the clinical training program. May be repeated. Maximum 24 hrs. S/NC only.

6492 Psychology Clinic Placement (1-4) Required of students assigned to Psychology Clinic. May be repeated. Maximum 24 hrs. S/NC only.

6493 Advanced Clinical Activity (1-4) May be repeated. Maximum 12 hrs. S/NC only.

6494 Field Experience in Clinical Psychology (1-4) For students who have finished internship with placement in clinical psychology in local area. May be repeated. Maximum 12 hrs. S/NC only.

6500 Seminar in Psychometrics (3) Seminar for advanced graduate students in psychometrics or quantitative psychology, to deal with advanced theories, methodologies, and their applications. Prereq: 4640, 5500 or equivalent, and consent of instructor. May be repeated. Maximum 9 hrs.

6510 Ethical and Professional Issues in Psychology (3) (Same as Educational and Counseling Psychology 6510.)

6550 Seminar in Advanced Social Psychology (3)

6575 Seminar in Mental Health Administration (3) Theory and problems in organization and management of mental health administration.


6702 Social Ecology (3) Seminar on current topics: ecological psychology, quality-of-life, social impact assessment, and environmental classification. Prereq: Consent of instructor.

6710 Seminar in Physiological Psychology (3)

6720 Seminar in Comparative and Ethological Psychology (3)

6800 Field Work in Industrial and Organizational Psychology (1-15) (Same as Management 6800.)

*May be repeated for credit with the approval of the department.
An M.A. in Philosophy with a concentration in religious studies is available for graduate work in these related fields. (Details of this program are described under Philosophy.) Graduate courses in religious studies further provide opportunities for students in a variety of disciplines to pursue work in religious studies as a graduate concentration.

3060-70-80 History of Western Religious Thought and Institutions (4, 4) 3060—First Century to Fifth Century. 3070—Sixth Century to Fifteenth Century. 3080—Sixteenth Century to 1900. (Same as History 3060-70-80.) A

4311 The Renaissance (3) (Same as History 4311.)

4312 The Reformation (3) (Same as History 4312.)

4340 Religion of Primitive Peoples (3) (Same as Anthropology 3440.)

3605-06 Professional Responsibility (4, 4) (Same as Philosophy 3605-06.)

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

3660 Buddhist Philosophy and Religion (4) (Same as Philosophy 3660.) F, W

3671 Religion and Philosophy in China (4) (Same as Philosophy 3671.) S

3800 Philosophy of Religion (4) (Same as Philosophy 3800.) F, Sp

4111-21 Modern Religious Philosophies (4, 4) Examination of the religious implications of major thinkers. Seniors and graduate students only, except by consent of department. Prereq: Consent of instructor. May be repeated. Maximum 12 hrs.

4640 Topics in Early Christianity and Hellenistic Religions (4) Selected figures, issues, and institutions. Seniors and graduate students only, except by consent of department. Prereq: Consent of instructor. May be repeated. Maximum 12 hrs.

4670 Topics in Eastern Religions (4) Selected figures, issues, and institutions. Seniors and graduate students only, except by consent of department. Prereq: 3650-60-71-72. May be repeated. Maximum 12 hrs.

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

4840 Readings in Selected Languages Related to Religious Studies (3-4) Prereq: Consent of instructor. May be repeated. Maximum 12 hrs.

4940 Sociology of Religion (4) (Same as Sociology 4940.)

5105 Foreign Study (1-12) See page 104.

5102 Off-campus Study (1-12) See page 104.

5103 Independent Study (1-12) See page 104.

5310-20 Topics in Religion and Society (4, 4)

5335 Orientation to Medical Ethics (4) (Same as Philosophy 5335.)

5365 Applied Ethical Theory (4) (Same as Philosophy 5365.)

5910-20 Topics in the History of Religion (4, 4)

5660 Topics in Afro-American History (3) (Same as History 5660.)

5710-20 Topics in Religious Thought (4, 4)

Romance Languages

MAJORS

French

M.A., Ph.D.

Spanish

M.A., Ph.D.

Professors:

Y. M. Washburn, (Acting Head) Ph.D. North Carolina (Chapel Hill); P. E. Barrett, Ph.D. California (Berkeley); C. W. Cobb, Ph.D. Tulane; J. C. Elliott, M.A. Illinois, W. H. Herlin, Ph.D. Florida State; T. B. Irving (Emeritus), Ph.D. Princeton; F. D. Maurino (Emeritus), Ph.D. Columbia; M. Petroska, Ph.D. Kentucky; C. Prinsky, Ph.D. California (Berkeley); J. O. Swain (Emeritus), Ph.D. Illinois; A. M. Vazquez-Bigi, Ph.D. Minnesota; G. E. Wade (Emeritus), Ph.D. Chicago; A. H. Wallace, Ph.D. North Carolina, (Chapel Hill).

Associate Professors:

W. F. Eyes (Emeritus), Ph.D. Wisconsin; E. J. Campion, Ph.D. Yale; R. M. Derryck, Ph.D. Illinois; M. H. Hankslein, Ph.D. Florida; K. D. Levy, Ph.D. Kentucky.

Assistant Professors:

A. S. Allen, Ph.D. California (Berkeley); D. M. DiPucchio, Ph.D. Kansas; C. K. Duncan, Ph.D. Illinois; F. Perez-Pines, Ph.D. Pennsylvania State; C. V. Rogers, Ed.D. Georgia; B. S. West, Ph.D. North Carolina, (Chapel Hill); J. J. Wood, Ph.D. Southern California.

The Department of Romance Languages offers two advanced degrees: the Master of Arts (M.A.) in French and Spanish; and the Doctor of Philosophy (Ph.D.) in Spanish.

Inquiries should be addressed to the Head of the Department.

THE MASTER’S PROGRAM

Thesis Option:

1. Completion of a minimum of 36 quarter hours of which 24 must be taken in courses numbered above 5000, including 5011 (French or Spanish, as appropriate). If the student chooses to divide his/her work into a major and minor (French-Italian, Spanish-Portuguese, etc.), at least 27 hours must be taken in the major.


3. A written examination covering the course work and selected items from a master reading list.

4. A final oral examination covering the thesis.

THE DOCTORAL PROGRAM

Course Work and Residence: A dissertation (36 credit hours), and minimum of 81 credit hours in course work beyond the Bachelor’s degree or its equivalent is required; maximum of 12 hours may be taken in courses at the 4000 level and the rest in courses above 5000, including a minimum of 18 hours in courses above 5000. All students must complete the series in methods of research (5151-61-71) for a total of 3 credits. No fewer than 54 quarter hours should be taken in courses pertaining to the student’s major field. The minor shall consist of at least 18 hours of which at least 12 hours must be numbered above 5000 and the rest above 4000, and should represent a meaningful complement to the student’s area of specialization. In addition, 9 hours of courses above 4000 in a related discipline are required. This requirement may be waived in favor of additional course work in the major field.

Language Requirements: Students are expected to demonstrate written and oral fluency in Spanish as well as knowledge of two other foreign languages. One of these must be French; the second one should be chosen from such languages as German, Dutch, Italian, Portuguese, Arabic or Hebrew in accordance with the student’s field of concentration. Proficiency in Latin shall be required of all students specializing in an area related to philology or the medieval period.

Examinations: A comprehensive examination, both written and oral, covering the major and minor fields must be passed before a student can become an official candidate for the degree. This examination is to be held at the time deemed most appropriate by the student’s major advisor and committee. The candidate is expected to defend the dissertation in a final oral examination.

French

3010-20-30 Elements of French for Upper Division and Graduate Students (3, 3, 3) Elements of language, elementary and advanced readings. Open to graduate students preparing for language examinations, and upper division students desiring reading knowledge of the language. Undergraduate credit only. No credit for those having had Elementary French. No auditors. F, W, Sp; Su
4001-02-03 Introduction to Consecutive and Simultaneous French Translation (3, 3, 3) Four-hour translation into English; 4002—Consecutive translation to and from English; 4003—Simultaneous translation to and from English. Training of students with intermediate or advanced knowledge of French for consecutive and simultaneous oral translation from French into English and vice versa, on a variety of practical subjects such as business, economics, politics, and sciences. Given mainly in language lab with additional classroom supervision by instructor. Prereq: 3430 or equivalent. Must be taken in sequence.

4011 Masterpieces of French Literature in English Translation (3) No foreign language credit. A

4020 Masterpieces of French Drama in English Translation (3) No foreign language credit. A

4110-20-30 French Literature of the Seventeenth Century (3, 3, 3) Prereq: Intermediate French or equivalent. A

4150 Theatrical French (1-3) Performance in one or more French plays. Prereq: Intermediate French or equivalent and consent of instructor. May be repeated with consent of department. A

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 national culture. Prereq: Completion of 9 hrs of courses on 3000 level. F; W; Sp

4210 Phonetics (3) Prereq: 2130, 2520, or equivalent. F

4220-30 Advanced Grammar (3, 3) Prereq: 2130, 2520, or equivalent. W; Sp

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 consent of department. (Same as German, Russian, Spanish and Linguistics 4250.) F

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

4270 Introduction to Romance Linguistics (3) Development of Classical Latin through Vulgar Latin into the major Romance languages. (Same as Spanish and Linguistics 4270.) Sp

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

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

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

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

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

5000 Thesis (1-15) P/NP only. E

5002 Non-Thesis Graduation Completion (3-15) Required for the non-thesis student not otherwise registered during any quarter when such a student owes university facilities and/or faculty time before degree is completed. May not be used toward degree requirements. May be repeated. S/N only. E

5011 Techniques in Literary Analysis (3) Required for either Plan A or Plan B of M.A. program. Intensive course in explication de texte. F
4270 Introduction to Romance Linguistics (3) (Same as French and Linguistics 4270). Sp
4410 Spanish Civilization (3) Prereq: Intermediate Spanish or equivalent.
4420-30 Latin American Civilization (3, 3) Prereq: Intermediate Spanish, or equivalent. W, Sp
4510 Special Topics in Nineteenth Century Spanish Literature (3) Prereq: Intermediate Spanish or equivalent. May be repeated with consent of department. Maximum 9 hrs. A
4810-20-30 Topical Survey of Spanish American Literature (3) Prereq: Intermediate Spanish or equivalent. May be repeated with consent of department. Maximum 9 hrs. A
5000 Thesis (1-15) P/NP only. E
5002 Non-Thesis Graduation Completion (3-15) Required for the non-thesis student not otherwise registered during any quarter when such a student uses university facilities and/or faculty time before degree is completed. May not be used toward degree requirements. May be repeated. S/NC only. E
5011 Techniques in Literary Analysis (3) Required for either Plan A or Plan B. W; S, Sp
5101 Foreign Study (1-12) See page 104. E
5102 Off-campus Study (1-12) See page 104. E
5103 Independent Study (1-12) See page 104. E
5110-20-30 Old Spanish (3, 3, 3) Medieval Spanish language and literature. A
5121 College Teaching of Romance Languages (3) Seminars, demonstrations, and practical applications of techniques and procedures for teaching and evaluating basic language skills, cultural aspects, and beginning literature. Required of all M.A. and Ph.D. students holding Graduate Teaching Assistantships except those whose previous training or experience warrants their being excused by department. F
5151-61-71 Bibliography and Methods of Research (1, 1, 1) (Same as French and Italian 5151-61-71.) S/NC only. A
5211-21 Don Quijote (3, 3) Must be taken in sequence. A
5212-32 Golden Age Prose (3, 3) 5212—La Celestina; critical study of Fernando de Rojas' life and work. Celestina's genre; Feliciano de Silva's Segundo Celestina. 5232—Guzman de Alfaroche and Spanish picarese genre. A
5250-60 The Generation of '98 (3, 3) Angel Gavinet, Giner de los Rios, Baroja, Unamuno, Valle Inclan, Benavente, Azorin, Perez de Ayala. A
5270 The Contemporary Novel (3) Civil War and post-Civil War period. A
5310 Directed Readings (3) E
5311-21 Special Topics in Spanish or Spanish American Literature (3, 3) May be repeated. A
5340 Problems in Hispanic Culture (3) Fruvaling social, political, artistic, literary and ideological conditions and patterns of any area or period within Spanish or Latin American culture. May be repeated with consent of department. Maximum 6 hrs. A
5550-60 The Golden Age Theatre (3, 3) 5550—Introduction to Spanish Theatre, Lope and Tirso. 5560—Castro, Alarcon, Moreto and Calderon. A
5610 Spanish American Prose to 1900 (3) Novel, chronicle, essay. A
5611-21 Spanish American Lyric Poetry (3, 3) A
5620-30 The Modern Novel in Spanish America (3, 3) A
5631 Spanish American Essay (3) A
5632 The Spanish American Short Story (3) Short story as major literary genre in Spanish America. Reading and criticism of works of authors such as Dario, Quiroga, Borges, Areoela, and Rufto. A
5633 Twentieth-century Latin American Theatre and Film (3) Readings from works of Carlos Solorzano, Rodolfo Usigli, Coronado Nale Roxio, Roberto Giner, Castaneda, Rene Marques and Sebastian Salazar Brondy. Presentation of films as adaptations of classics such as D. Barba, L. Almagro and E. Gomendu Sombral as well as exponents of experimental cinema of today. A
5640 Latin American Women Writers (3) Feminine point of view, modern image of woman, male-female relationships and society as context for woman's destiny. Readings from poetry and fiction, including such authors as Alfonnessa Storni, Delmira Agustini, Gabriela Mistral, Silvina Builech, Silvina Ocampo and Rosario Castellanos. A
5650-60 Advanced Syntax and Stylistics (3, 3) Readings and written imitations of modern literary styles in compositions, sketches, and original stories. A
5670 Problems in Linguistics: Romance Languages (3) (Same as French 5670). A
5610-20-30 Spanish Lyric Poetry (3, 3, 3) A
6000 Doctoral Research and Dissertation (3-15) P/NP only. E
6210-20-30 Seminars in Spanish Literature (3, 3, 3) Topics vary in field of Peninsular Literature. May be repeated with consent of department. A
6310-20-30 Seminar in Latin American Literature (3, 3, 3) Topics may be repeated with consent of department. A

Russian
See German

Sociology

MAJOR

DEGREES

Sociology


The Department of Sociology offers programs leading to the Master of Arts and the Doctor of Philosophy degrees.

For a full statement of departmental requirements, students are referred to the Department Graduate Manual.

THE MASTER'S PROGRAM

The department offers both a thesis and non-thesis option for a master's degree. For information concerning the master's degree with thesis, see the General Requirements on page 22. Those interested in the non-thesis option should obtain details from the department.

THE DOCTORAL PROGRAM

Specific requirements for the degree of Doctor of Philosophy in Sociology include:

1. A minimum of 108 credit hours following the Bachelor's degree, exclusive of credits for the Master's degree, is required. Of this number, 36 hours shall be allocated to doctoral research and dissertation. A maximum of 12 hours credit outside the major may be taken in related fields, with the approval of the student's committee.

2. A written comprehensive examination covering sociological theory research methodology and two other areas in sociology must be passed prior to admission to candidacy. This examination must be passed not later than one academic year before the date on which the degree is granted.

3. No later than one month before the beginning of the semester in which the candidate is graduating, the candidate will be required to pass an oral examination on the doctoral dissertation. At the oral examination the candidate will be expected to show a thorough knowledge of sociological theory and methodology related to the research.

All registration for 3000- and 4000-level courses requires the consent of the instructor.
and social structure in American society; analysis of intergroup relations with attention given to both past and present treatments of selected groups to broader society.

4930 Society Movements (4) Development, organization, and function of social movements; attention is given to the ideology, leadership and organization of major movements, religious and other types of social movements. Sp

4940 Sociology of Religion (4) Interrelationship of society, culture, and religion. (Same as Religious Studies 4940.) A

5000 Thesis (1-15) P/NP only. E

5002 Non-Thesis Graduation Completion (3-15) Required for the non-thesis student not otherwise registered during any quarter when such a student uses university facilities and/or faculty time before degree is completed. May not be used toward degree requirements. May be repeated. S/NC only. E

5010 Professional Seminar (3) Limited to sociology students. May be repeated. Maximum 9 hrs. S/NC only. W, Sp

5120 Introduction to Sociological Theory (3) F

5230 Seminar in Sociology of Medicine (3) May be repeated with different instructors. Maximum 6 hrs. Fall

5300 Methods of Sociological Research I (3) Assumptions and foundations of sociological research strategies and techniques.

5310 Seminar in Methods of Sociological Research (3) Major methodological issues in sociology; scaling techniques, reliability, validity, sampling, and quantitative methodology.

5320-30 Social Statistics (3, 3) General survey of parametric and nonparametric procedures in analysis of sociological data; assumptions underlying procedures; advantages, disadvantages, and special applications. Must be taken in sequence. F; W

5350-60 Statistical Analysis in the Social Sciences I, II, III (3, 3, 3) Topics include multiple regression, analysis of variance, analysis of covariance, ordinal and nominal measures of association, sampling, significance tests, and confidence limits. Extensive use of social science computing packages.

5470 Foundations of Social Psychology (3) Current and classical theoretical perspective in social psychology. May be used for credit in psychology.

5480 Foundations of Social Conflict and Change (3) Fall

5510 Delinquency and the Social Structure (3) Critical assessment of contemporary theories of delinquency, research findings related to them, and their implications for formal strategies of control and rehabilitation.

5520 Crime, Law, and Social Control (3) Winter

5550 Demographic Techniques (3) Life, table, standard rates, and survey techniques of population analysis. A

5560 Seminar in Community (3) Winter

5560 Historical Demography (3) Family reconstitution, aggregate analysis, strategies for examining documents containing information on population. Requirement for finding trends in historical patterns of changes in fertility, mortality, migration and different types of family structure. A

5710 Seminar in Collective Behavior and Social Movements (3) A

5720 Social Interaction (3) Critical assessment, through reading and actual research, of contemporary theoretical orientations to study of small groups. Research designed to test selected theoretical problems. May be repeated. Maximum 6 hrs.

5740 Seminar in Social Attitudes (3)

5800 Seminar in Race and Culture (3) Critical examination on theoretical and conceptual approaches in study of intergroup relations. A

5830 Social Differentiation and Stratification (3) Various sources of differentiation in society, their relation to conflict in society, and their relationship to class structure in society.

5840 Seminar in Occupations (3) Occupations and their relation to individual and society; technology and occupations; occupational structures and occupations; social organization and occupations.

5850 Seminar in Occupations (3) Continuation from material in Sociology 5840; interface between occupations and settings in which they are performed.

5870 Social Organization (3) Structure and function of human groups, with special attention to voluntary associations and administrative organizations.

5880 Seminar in Research Problems in Intergroup Relations (3) Research techniques and problems encountered in race and intergroup relations are explored; actual field research projects are performed.

5890 Sociology of Development and Modernization (3) Comparative approach to institutional and organizational correlates of modernization. Relations between urbanization, industrialization, and modernization.

5940 Social Theories of Sport (3) (Same as Physical Education 5940.)

6000 Doctoral Research and Dissertation (3-18) P/NP only. E

6050 Seminar on Methods of Social Research (3) Experimental research projects. (Same as Psychology 6050.)

6220 Sociological Theory I (3) Prerequisite: 5410 or consent of instructor.

6230 Sociological Theory II (3) Prerequisite: 5410 or consent of instructor.

6300-40 Survey Design and Analysis (3, 3) Application of general methodological principles to particular operating contexts of survey. Systematic exploration of survey problems through student participation in design and analysis of survey (2 qtrs). Prerequisite: 5303-10 or consent of instructor.

6350 Field Research (3) Prerequisite: 5303-10 or consent of instructor.

6360 Field Research Practicum (3)

6410 Tutorials in Advanced Topics (3) Individual research. Prerequisite: Consent of department. 5410 and 6420 may be repeated in any combination for a maximum of 18 hrs.

6420 Special Topics (3) Topic of special interest or student-initiated courses which will not be regularly offered. Prerequisite: Consent of instructor. 6410 and 6420 may be repeated in any combination for a maximum of 18 hrs.

6530 Sociology of Law (3) Analysis of social and cultural factors influencing emergence and maintenance of law as social institution and affecting relations between law and deviant behavior; appraisal of theoretical and methodological issues encountered in studying law. A

6640 Seminar in Environmental Sociology (3)

6550 Urban and Regional Sociology (3) Prerequisite: Consent of instructor.

6660 Urban Fertility (3) Historical, topical, regional, and methodological approaches to urban fertility and demographic problems. Consideration of relations obtained between socioeconomic and demographic change in various parts of the world; fertility rates and national growth; controversies on control of vital rates of growth. Prerequisite: 5650 or consent of instructor.

6670 Theory and Methods of Human Ecology (3) Theoretical perspective and research techniques of human ecology applied to selected research sites. Prerequisite: Consent of instructor.

6680 Theory and Research in Human Migration (3) Prerequisite: 5650 or consent of instructor.

6990 Population Theory (3) Malthus, Marx, optimum population, and selected variables. Prerequisite: 5650 or consent of instructor.

7030 Advanced Studies in Social Psychology (3) Social interaction and personality; genesis and functioning of self; interplay of social structures and individual action; and recent theories of social psychology. Selected related issues and problems and recent research are discussed. May be repeated. Prerequisite: 5470 or consent of instructor.

7040 Formal Organization (3) Major formal organizational theories; bureaucracy, functions of theoretical models of organizations; major organizational variables; organizational authority patterns; communication in formal organizations. Prerequisite: 5470 or consent of instructor.

7050 Formal Organization (3) Organizations, organizational change and effect of technology; social consequences of automation; unionization and organization; organizations and community interrelatedness. Prerequisite: 5470 or consent of instructor.

7600 Sociology of Religion (3) Process to learn cognitive systems and forms of behavior of social world. Examination of main currents in sociological theory and research. Prerequisite: 5470 or consent of instructor. May be repeated with different instructors. Maximum 6 hrs.

8620 Political Sociology (3) Political system from societal, organizational, and group perspectives.

8630 Seminar in Class and Status (3) Classics and recent studies of class analysis. Prerequisite: 5470 or consent of instructor. Maximum 6 hrs.

8640-50 Social Change (3, 3) Major theories, methods, and research.

8660 Seminar on Community Power (3) Analysis of theories and methods used in studying social power in communities. Prerequisite: 5480 or consent of instructor.

Spanish

See Romance Languages

Special Programs

5010 Perspectives in the Liberal Arts (3) Seminar on role of liberal arts in education from historical and regional perspective.

5020 Inquiry in the Liberal Arts (3) Seminar on nature of evidence in social sciences, natural sciences, and humanities and fine arts to provide overview of research and issues pertinent to disciplinary focus.

5030 Learning in the Liberal Arts (3) Seminar on creative approaches to promoting liberal learning environment in classroom, incorporating use of "Great Books," critical thinking and creative problem-solving processes, values sensitivity, and other components.

Speech and Hearing Science

See Audiology and Speech Pathology

Speech and Theatre

MAJOR DEGREE

Speech and Theatre Theatre M.A. M.F.A.

Professors:

MASTER OF FINE ARTS DEGREE CURRICULUM

At least 90 quarter hours, 60 of which must be at the 5000 level or above are required for the degree of Master of Fine Arts in Theatre, which is normally to be completed in three consecutive years of full-time residence. Theatre 5110 is required the first quarter of residence. Also required are Theatre 3611, 3252-53-54, and at least 6 hours in dramatic theory and criticism. 3252-53-54 may be waived by proficiency examination. Students passing this examination must complete 12 hours in advanced theoretical history and dramatic theory/criticism, including at least one course from each of the two areas.

In addition to the core requirements listed above, each area of concentration has specific requirements:

**Acting:**
1. one quarter of 5610, representing a significant project.
2. Theatre 5670-71-72-73-74-75-76-77-78.
3. One course in directing.
4. Two hours each in voice and dance.

**Directing:**
1. one quarter of 5610, representing a significant project.
2. Theatre 4441-42.
3. 6 hours of 5630.

**Playwriting:**
1. one quarter of 5610, representing a significant project.
2. Theatre 4951-52.
3. 18 hours of 5250.
4. 6 hours of 5610.

**Dramaturgy:**
1. one quarter of 5610, representing a significant project.
2. Three courses in dramatic theory/criticism.
3. Theatre 5330, 4441-42.
4. 3 hours of 5630.
5. 18 hours of 5710.
6. 12 hours in an arts and humanities area.

**Research:**
1. One year of language study.

**Design/Technical Production:**
4. 3 hours of 5610.
5. 12 hours in an arts and humanities area.

In addition to the core requirements listed above, each area of concentration has specific requirements:

**Speech Communication:**
1. (1) Speech 5010 and 5140.
2. (2) Three courses from the following: 4222, 4550, 5550, 5750, and 5770.
3. One course from the following: 4560, 4571, 4591, 4930.
4. (4) One course from the following: 5210, and 5440.
5. (4) Any of the required 45 hours (including thesis hours) must be taken in each Speech or Theatre course numbered 4000 or above. Two-thirds of the total hours must be at the 5000 level or above. No courses in Theatre may be counted toward the speech concentration.

**Theatre:**
1. (5) 15 hours in theatrical history and criticism.
2. At least 9 hours (and no more than 12 hours) in performance and production courses may be included in the 45-hour minimum for the degree.
3. No more than 6 hours in projects courses.

**Research in Speech Communication (3)** Survey of methods and representative studies in speech communication.

**5110 Communications Theory (3)** Analysis of contemporary theories of human communication, emphasizing similarities and differences of communication processes in intrapersonal, interpersonal, and mass communication systems.

**5120 Topics in Group and Interpersonal Communication (3)** May be repeated. Maximum 9 hrs.

**5440 Organizational Communication (3)** May be repeated. Maximum 9 hrs.

**5911 Directing the Forensic Program (4)** Philosophy and methods of directing cocurricular and extracurricular forensic activities in high schools and colleges: competitive and noncompetitive approaches to directing debate, oral interpretation and public speaking events. (Same as Curriculum and Instruction 5911.)

**Speech and Theatre**

4640 Ensemble Interpretation (4) Oral interpretative techniques of choral reading, readers theatre and chamber theatre. F, W

5000 Thesis (1-15) P/NP only. E

5002 Non-Thesis Graduation Completion (3-15) Required for the non-thesis student not otherwise registered during any quarter when such a student uses university facilities and/or faculty time before degree is completed. May not be used toward degree requirements. May be repeated. S/N only. E

5110 Introduction to Graduate Research in Speech and Theatre (3) F

5120 Directed Reading and Research (2) May be repeated. Maximum 9 hrs.

5160 Theory and Production Techniques of Oral Interpretation (4) Literary, psychological, communicative, and aesthetic approaches to collection, adaptation, and oral presentation of literature. W, Sp

**Theatre**

3214-15 Technical Theatre (4, 4) Special techniques in scenery and property construction; stage management; and scenic and technical theatre practice. Prereq: 2211-21, or consent of instructor. Must be
4611 Principles of design for the Theatre (4) Relationship of elements of design to design of stage scenery, lights, costumes and stage direction.

4642 Scenery Painting (3) Materials, techniques and principles of the craft. Gaining skill and understanding through studio experience. Prereq.: Consent of instructor. Graduate credit available to Theatre MFA students only.

4751-52-53 Dramatic Theory and Criticism (3, 3, 3) W; Sp

4951-52 Playwriting (4) Prereq.: Consent of instructor. F; W

5210 Advanced Costume Patternmaking (4) Advanced studies in pattern-making the period costumes. Development of historic patterns through flat pattern method.

5214 Special Problems in Technical Theatre (4) Theatrical technical direction. Prereq.: Consent of instructor. May be repeated. Maximum 8 hrs.

5241 Studies in Scene Design (4) Advanced scene design techniques and approaches to design for complex dramas and varied dramatic forms. May be repeated. Maximum 8 hrs.

5250 Seminar in Playwriting (1-6) Sp may be repeated. Maximum 27 hrs.

5310 Studies in European Theatre History (3) May be repeated. Maximum 9 hrs. F, W

5320 Studies in American Theatre History (3) May be repeated. Maximum 9 hrs. F, W

5330 Dramaturgy: Theory and Practice (4) Methods and materials. Prereq.: Consent of instructor.

5341 Studies in Lighting Design (4) Scene design techniques and approaches to design for complex dramas and varied dramatic forms. May be repeated. Maximum 8 hrs.

5551 Costume Design and Production (4) Practical application and production of costume designs for the stage. Prereq.: 2231, 3511, 3512, 4541, 4542, and/or consent of instructor. May be repeated. Maximum 8 hrs.

5610 Production Workshops (1-4) Directed experience in production collaboration. Prereq.: Consent of instructor. May be repeated. Maximum 12 hrs.

5620 Projects in Lighting Design (3) May be repeated. Maximum 9 hrs. E

5630 Projects in Play Directing (3) May be repeated. Maximum 9 hrs. E

5640 Projects in Scene Design (3) May be repeated. Maximum 9 hrs. E

5650 Projects in Costume Design (3) Problems of play interpretation and theatrical costume design centralizing around individual projects. Students will design costumes for complex plays for public performance. May be repeated. Maximum 9 hrs. E

5652 Projects in Costume Technology (1-4) Individualized studies in costume technology in theatrical production. Prereq.: Consent of instructor. May be repeated. Maximum 6 hrs.

5660 Projects in Technical Theatre (1-6) Problems of set design, interpretation, and execution. May be repeated. Maximum 9 hrs. E

5670-71-72-73-74-75-76-77-78 Master Class in Acting (5, 5, 5, 5, 5, 5, 5, 5, 5) Available to Theatre M.F.A. students only.

5680 Design and Technical Production Seminar (3) Directed project work and research. Prereq.: Consent of instructor. May be repeated. Maximum 27 hrs.

5710 Seminar and Projects in Dramaturgy (3) Directed study and experience. Prereq.: Consent of instructor. May be repeated. Maximum 27 hrs.

5890 Studies in Theatrical Production (3) May be repeated. Maximum 9 hrs. Sp

5912 Play Production in Secondary Schools (4) Principles and methods for directing high school dramatic programs. (Same as Curriculum and Instruction 5912.) Su

5950-60-70 Studies in Dramatic Theory and Criticism (3, 3, 3) F; W; Sp

5990 Project and Thesis (1-6) Available to Theatre MFA students only. Prereq.: 45 hrs toward MFA and approval of advisor. May be repeated. Maximum 12 hrs. S/NC only.

Speech Pathology

See Audiology and Speech Pathology

Zoology

MAJOR

DEGREES

Zoology

M.S., Ph.D.

Professors:

A. C. Echtermaclt (Acting Head), Ph.D. Kansas; R. M. Bagby, Ph.D. Illinois; D. L. Bunting, Ph.D. Oklahoma State; J. G. Carlson (Emeritus), Ph.D. Pennsylvania; D. A. Elter, Ph.D. Minnesota; B. Hochman, Ph.D. California (Berkeley); E. T. Howley, Ph.D. Wisconsin; K. J. Weon, Ph.D. Chicago; J. R. Kennedy, Ph.D. Ohio; J. N. Liles, Ph.D. Ohio State; J. A. MacCabe, Ph.D. California (Davis); S. E. Riehert, Ph.D. Wisconsin; L. E. Roth, Ph.D. Chicago; C. A. Shivers, Ph.D. Michigan State; J. T. Tanner (Emeritus), Ph.D. Cornell; N. G. Weich, Ph.D. Florida; G. W. Whitson, Ph.D. Iowa.

Assistant Professors:


Research Assistant Professor:

J. L. Gittleman, Ph.D. D. Sussex (Brighton, England).

1 Alumni Distinguished Service Professor.

The Department of Zoology offers the Master of Science and Doctor of Philosophy degrees with concentrations in aquatic biology, zoology, marine biology, and animal behavior; in mammalogy, and in various aspects of the earth and aquatic sciences. The Zoology program is designed to provide students with a solid foundation in the sciences and an opportunity to develop research skills.

Requirements for admission: Applicants for graduate study must have a background in the natural sciences. Applicants to any major degree program must meet the following requirements:

1. A bachelor's degree from a college or university accredited by the appropriate regional accrediting agency.
2. A cumulative grade point average of 3.0 or better
3. A minimum score of 500 on the GRE General Test.
4. Evidence of interest in and commitment to research, as demonstrated by research experience or participation in research activities.

Specializations:

Aquatic Biology:

The aquatic biology specialization is designed to provide students with a solid foundation in the sciences and an opportunity to develop research skills.

Requirements for admission: Applicants for graduate study must have a background in the natural sciences. Applicants to any major degree program must meet the following requirements:

1. A bachelor's degree from a college or university accredited by the appropriate regional accrediting agency.
2. A cumulative grade point average of 3.0 or better
3. A minimum score of 500 on the GRE General Test.
4. Evidence of interest in and commitment to research, as demonstrated by research experience or participation in research activities.

MAJOR

DEGREES

Zoology

M.S., Ph.D.

Professors:

A. C. Echtermaclt (Acting Head), Ph.D. Kansas; R. M. Bagby, Ph.D. Illinois; D. L. Bunting, Ph.D. Oklahoma State; J. G. Carlson (Emeritus), Ph.D. Pennsylvania; D. A. Elter, Ph.D. Minnesota; B. Hochman, Ph.D. California (Berkeley); E. T. Howley, Ph.D. Wisconsin; K. J. Weon, Ph.D. Chicago; J. R. Kennedy, Ph.D. Ohio; J. N. Liles, Ph.D. Ohio State; J. A. MacCabe, Ph.D. California (Davis); S. E. Riehert, Ph.D. Wisconsin; L. E. Roth, Ph.D. Chicago; C. A. Shivers, Ph.D. Michigan State; J. T. Tanner (Emeritus), Ph.D. Cornell; N. G. Weich, Ph.D. Florida; G. W. Whitson, Ph.D. Iowa.

Assistant Professors:


Research Assistant Professor:

J. L. Gittleman, Ph.D. D. Sussex (Brighton, England).

1 Alumni Distinguished Service Professor.
ing examination. Students must take this examination during the winter quarter of the first year and may repeat the examination the following winter quarter if unsatisfactory scores are received. Competency must be exhibited within this two-year period for a student to continue in the program.

Preparation for thesis or dissertation: During the second year of study, a written examination and a special research problem in each of two faculty members' laboratories will determine the student's preparation for thesis or dissertation study.

THE DOCTORAL PROGRAM

Special requirements in Zoology are as follows: (1) course requirements shall be determined by the candidate’s faculty committee; (2) the comprehensive examination will be an oral and written examination in zoology and in allied fields in which the candidate has had training; (3) the candidate for the Ph.D. degree must possess a reading knowledge of at least one foreign language in which there exists a sizeable amount of literature relevant to the major field of study. The student has the option of demonstrating a reading knowledge of this foreign language by (a) passing the official reading examination given by the language department or (b) earning at least a B in a third quarter of a language course. This requirement for the first language must be fulfilled before the student can take the comprehensive examination.

The student's faculty committee may require of the student any level of training or proficiency in a second foreign language but may not require that the student take the official language examination in the second language.

3050 Comparative Vertebrate Embryology (B) Developmental morphology of selected vertebrates. 2 hrs and 3 labs. F, W, Sp

3060 Comparative Vertebrate Anatomy (P) Phylegny and anatomy of organ systems. Dogfish shark and cat primarily used in laboratory. 3 hrs and 2 labs. W

3080 Principles of Animal Physiology (B) Physiology of organ systems of animals including man. Prereq: Biology 3120, Coreq: Chemistry 3221. Recommended: Physics 2210-20. 3 hrs and 1 lab. F, Sp

3110 General Entomology (P) Introduction to insects; basic structure and development; behavior; classification of insect orders and representative families; interpretation and use of keys. Prereq: Biology 3130 or consent of instructor. 3 hrs and 2 labs. W

3150 Invertebrate Zoology (B) Biology of invertebrates (except insects) with emphasis on ecology and behavior. Prereq: Biology 3130. 3 hrs and 2 labs. W

3220 Physiology of Reproduction (S) [Same as Animal Science 3220.] F, Sp

3320 Histology (4) Study of animal tissues. Prereq: Biology 3120. 2 hrs and 2 labs. F

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. Sp

4007-4017 Minicourse in Zoology (2 hrs each) Selected, advanced topics in zoology; concentrated in time and subject matter. Consult departmental listing for actual topics offered. Prereq: As posted. May be repeated. E

4050 Developmental Biology (4) Experimental morphogenesis at least a B in the third quarter, major effects and related topics with examples drawn primarily from invertebrates and vertebrates. Prereq: 3650. 2 hrs and 2 labs. W

4120 Undergraduate Research Participation (2) Experience in active research projects under supervision of staff member. Consent of instructor. E

4140 Practicum in Zoology (1-3) Participation in practical application of zoology in community institutions, government organizations and industry. Approximate 9 hrs involving 6 lab quarters. Prereq: Biology 3110, 3120, 3130 and senior standing: E

4190 Mammalogy (4) Classification, evolution, distribution, reproduction, populations, and behavior. 2 hrs and 2 labs or field periods. F

4200 Ichthyology (5) Classification, collection and identification, distribution, life histories, and economic importance of fishes. Prereq: Consent of instructor. 2 hrs and 2 labs or field periods. F

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, Prereq: Cell biology, or any physiology, and organic chemistry. Recommended prereq: Biochemistry. 3 hrs and 1 lab. Sp

4250 Environmental Physiology (4) Physiological mechanisms in animal kingdom and relationships to animal ecology and to survival of animals in diverse environments. Prereq: Biology 3120-30, 2 yrs chemistry. W

4250 Comparative Animal Physiology Laboratory I (1) Coreq: 4250. W

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

4280 Comparative Animal Physiology Laboratory II (1) Prereq: 3080 and consent of instructor. Coreq: 4260. Sp

4270 Immunology (3) (Same as Microbiology 4270.)

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 equivalent. W

4290 Herpetology (4) Classification, distribution, life histories, collection and identification of amphibians and reptiles, primarily of local species. 2 hrs and 2 labs or field periods. Sp

4300 Ornithology (4) Morphology, physiology, behavior, reproduction, populations, evolution, field identification. 2 hrs and 2 labs or field periods. W

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

4330 General Cytology (4) Study of cellular organelles at the light and electron microscope levels and the functioning of these organelles. Prereq: Biology 3110. W

4390 Advanced Parasitology (4) Life cycles, techniques of collection, preservation, and identification of parasitic worms and protozoa. Prereq: Consent of instructor.

5180 Fresh Water Invertebrate Zoology (4) Ecology and taxonomy of fresh water invertebrates exclusive of insects. Laboratory and field study. Prereq: 3150.


5280 Insect Physiology (4) Functions and interrelationships of systems relative to metabolism, growth, coordination, movement, and reproduction. Prereq: 4280, 1 yr general chemistry or consent of instructor. 2 hrs and 2 labs. W, A

5290 Quaternary Problems (4) (Same as Geology 5290 and Botany 5290.)

5300 Biometry (3) Statistical methods used in analysis of quantitative biological data. Prereq: 1 qr statistics or consent of instructor. F

5410 Advanced Parasitology (4) Life cycles, techniques of collection, preservation, and identification of parasitic worms and protozoa. Prereq: Consent of instructor.

5610-20 Advanced Animal Physiology (5, 6) Primarily mammalian physiology; 5510—membrane neuron, central nervous system, muscle, cardiovascular system, and control mechanisms, 5520—respiratory, renal, gastrointestinal, and reproductive physiology, acid-base mechanisms, and metabolism. Should be taken in sequence. Prereq: 4280. Recommended prereq: 3110, or 5510. 3 hrs and 1 lab. W, Sp

5620 Animal Populations (3) Characterization of natural populations of plants and animals. Prereq: Biology 3110 and 3130. (Same as Botany 5730.)
5740 Physiological Ecology of Animals (2) Adaptive physiological responses of animals to natural changes in or extremes of physical and biotic environment. Emphasis on terrestrial vertebrates. Term paper including review of assigned topic with emphasis on creative development of special aspect. 1 2-hr lec. Su

5750 Physiological Ethology (3) Behavioral endocrinology and neurology from ethological perspective; reciprocal relationships of physiology and behavior in natural context. Prereq: Consent of instructor, or Psychology/Zoology 4720, or undergraduate course in physiology. W

5760 General Vertebrate Neuronanatomy (3) (Same as Psychology 5760.)

5820 Methods of Taxonomy (4) Classification of animals, rules of nomenclature, problems in priority; preparation of keys, descriptions, and figures. Prereq: Consent of instructor. W

5840 Aquatic Insects (4) Taxonomy and biology of aquatic insects, emphasis on immature forms. 2 hrs and 2 labs. Sp

5860 Geographic Distribution of Animals (4) Distribution patterns of vertebrate and invertebrate animals in all major habitats. Prereq: Consent of instructor.

6000 Doctoral Research and Dissertation (3-15) P/ NP only. E

6110 Advanced Topics in Cell and Molecular Biology (1-3) Readings and discussions of recent advances in cell biology. Prereq: Biology 3120 and consent of instructor. May be repeated with consent of department. Maximum 12 hrs.

6210 Seminar in Physiology (2) Two physiology courses or consent of instructor. May be repeated. Maximum 6 hrs.

6310 Seminar in Cytology (2) May be repeated. Maximum 6 hrs.

6350 Seminar in Developmental Biology (2) Internal regulation in differentiating cells. Prereq: 3050, 4050, Biochemistry 4110-20. W

6510 Seminar in Genetics (2) Prereq: General genetics. May be repeated. Maximum 6 hrs. F

6550 Seminar in Aquatic Biology (2) Prereq: Any 2 of 4200, 4660, Botany 5061, or consent of instructor. May be repeated. Maximum 6 hrs. F, W, Sp

6710 Seminar in Ecology (2) Prereq: Consent of instructor. May be repeated. Maximum 6 hrs. W
Robert L. Summit, Dean  
Reid I. Collmann, Associate Dean

The major campus of the College of Medicine is located in Memphis, Tennessee. The College, however, is a statewide organization with other units in Chattanooga, Jackson, and Knoxville.

In addition to the Department of Medical Biology listed here, the Knoxville Unit has several clinical departments with faculty dedicated to graduate and postgraduate medical education.

The College of Medicine traces its origin to the establishment of the medical department of the University of Nashville in 1851. Later, through a merger of four medical schools, it became The University of Tennessee College of Medicine and moved to Memphis in 1911.

Medical Biology/  
Memorial Research Center

Professors:  
C. D. Lozzio, (Acting Chairman) M.D. Buenos Aires (Argentina); W. Farber, Ph.D., Duke; J. E. Fuhr, Ph.D.; St. John's (New York); C. C. Congdon (Emeritus), M.D. Michigan; J. B. Jones, D.V.M. Illinois; R. D. Lange, M.D. Washington (St. Louis); J. P. Chen, Ph.D. Pennsylvania State; T. P. McDonald, Ph.D. Pennsylvania State; J. C. Parker, Jr., M.D. Medical College (Virginia); P. W. Wiggier, Ph.D. California (Berkeley); C. J. Wust, Ph.D. Indiana (Bloomington).

Associate Professors:  
R. Carroll, Ph.D. Cornell; W. T. Hama, M.D. Ain-Shams (Egypt); A. T. Ichiki, Ph.D. California (Los Angeles); E. C. Schroeder, D.V.M. Michigan State.

Assistant Professor:  

The Department of Medical Biology of the College-Knoxville Unit was formed from the faculty of The University of Tennessee Memorial Research Center and Hospital in 1978. The Research Center was established in 1956. Its faculty has research, education, and service interests in cancer, blood diseases, metabolism, neuroscience, birth defects, cytogenetics and clinical genetics. Courses in these areas are offered to students at the graduate and undergraduate levels. Elective courses are also available to students in the College of Medicine.

The faculty with the College of Veterinary Medicine participates in the graduate program leading to M.S. and Ph.D. degrees in Comparative Medicine.

Other advanced degree students can do thesis research in the department by arrangement with other life science departments at the University.

5000 Thesis (1-15) P/NP only. E

5080 Graduate Research Participation (3) Advanced research techniques studied while conducting individual biomedical research projects under supervision of faculty. Prereq: Consent of instructor. May be repeated with consent. Maximum 9 hrs. S/NC only. E

5210 Principles of Oncology (3) Lectures, classroom discussion, and case reports surveying the major topics in the study of cancer. Prereq: Upper division Biology. May be repeated. Maximum 9 hrs. F, W, Sp

5220 Special Topics in Cancer (1-3) Special topics in oncology. Prereq: 4210 and consent of instructor. May be repeated. Maximum 9 hrs. F, W, Sp

5310 Principles of Hematology (4) Lectures, classroom discussion, and case reports. Prereq: Upper division Biology background preferably to include immunology. May be repeated. Maximum 9 hrs. F, W, Sp

5320 Special Topics in Hematology (1-3) Special topics in hematology. Prereq: 4310 and consent of instructor. May be repeated. Maximum 9 hrs. F, W, Sp


5410 Molecular Basis for Metabolic Disease (5) Metabolic disorders of humans and animals. Emphasis on molecular mechanisms in inborn errors of metabolism, toxic reactions, and deficiency states. Clinical and pathological correlations. Prereq: Biochemistry 4110-20 or equivalent. W, A

5420 Special Topics in Metabolic Disease (1-3) Bio-

5430 Metabolism of Drugs (2) Drug mechanisms of action: membrane transport, enzyme reactions, drug receptors, ionization, stereochemistry and metabolic pathways. For students interested in biochemical pharmacology. Prereq: Biochemistry 4110-20. Sp

5450 Clinical Genetics (3) Human genetic disorders: lectures, case presentations and new developments in diagnoses and research. Prereq: General Biology and general Genetics background or consent of instructor.

5510 Special Topics in Neuropathology (1-3) Special topics in neuropathology. Prereq: Pathobiology 5010 or equivalent or consent of instructor. May be repeated. Maximum 9 hrs.

6000 Doctoral Research and Dissertation (3-15) P/NP only. E

6110 Advanced Topics in Medical Biology (2) New developments in biologic research applicable to clinical medicine. Primarily for doctoral candidates in Comparative and Experimental Medicine. Prereq: Consent of instructor. May be repeated. Maximum 6 hrs. F, W, Sp

6520 Special Topics in Pathology (1-3) Special topics in pathology. Primarily for doctoral candidates in Comparative and Experimental Medicine. Prereq: Consent of instructor. May be repeated. Maximum 6 hrs. F, W, Sp


5410 Molecular Basis for Metabolic Disease (5) Metabolic disorders of humans and animals. Emphasis on molecular mechanisms in inborn errors of metabolism, toxic reactions, and deficiency states. Clinical and pathological correlations. Prereq: Biochemistry 4110-20 or equivalent. W, A

5420 Special Topics in Metabolic Disease (1-3) Bio-

chemical and physiological basis of selected diseases of humans and animals. Clinical-pathological correlations. Prereq: 5410 and consent of instructor. May be repeated. Maximum 9 hrs. F, W, Sp
College of Nursing

Sylvia E. Hart, Dean
Barbara M. Reid, Associate Dean for Student Affairs
Dorothy B. Stephens, Assistant Dean for Clinical and Business Affairs

MAJOR
Nursing

DEGREE
M.S.N.

ADMISSION REQUIREMENTS

1. Meet requirements for admission to The Graduate School.
2. Hold a Bachelor's degree in Nursing. If the Bachelor's degree is not in Nursing, the applicant must successfully complete the equivalent of an upper division major in nursing as part of the M.S.N. program.
3. If the number of qualified applicants exceeds the number that can be accommodated, preference will be given to applicants:
   a. whose undergraduate GPA is a 3.0 or higher;
   b. who have had at least two years of full-time clinical practice experience following completion of a baccalaureate nursing program;
   c. who are Tennessee residents;
   d. who are currently employed in underserved health service areas and who can demonstrate their commitment to return to those areas following completion of the program; or
   e. who are currently employed as nurse educators in programs preparing registered nurses; or
   f. who are currently employed as directors of nursing service.
4. Ordinarily one year of full-time clinical practice experience should be completed prior to applying for admission to the program.

DEGREE REQUIREMENTS

In addition to The Graduate School Requirements for Advanced Degrees on p. 19:

1. Students must complete 60 quarter hours of graduate level coursework with a cumulative GPA of 3.0 or better.
2. The 60 credit hours must include the following components:
   a. Core requirements
      - 23 hrs
   b. Clinical concentration
      - 20 hrs
   c. Role preparation option
      - 11 hrs
   d. Electives
      - 6 hrs
   Total 60 hrs
3. A Master's thesis is not required, but those students who wish to complete a thesis as a part of their program may substitute the thesis for the 8 elective hours.
4. All students must successfully complete a comprehensive final examination, written (or written and oral) for the non-thesis option and oral (or oral and written) for the thesis option.
5. Students may choose either primary care nursing, secondary/tertiary care nursing or parent-child nursing as their clinical concentration option. Students selecting the primary care nursing option must complete 5450, 5460, 5550. Students selecting the secondary/tertiary care nursing option must complete 5120-30 and 5310. Students selecting the parent-child nursing option must complete 5220, 5255, and either 5230 or 5245. A special track in the M.S.N. program designed to prepare associate degree nursing faculty will be discontinued in 1987.
6. The core requirement that must be completed by all students regardless of clinical option includes the following courses: 5010, 5020, 5030, 5070, 5210, 5680 and a graduate level statistics course that must be approved in advance by the student's faculty advisor.
7. Students may select a role preparation option in teaching, management, or advanced clinical practice. Students selecting the teaching option must complete 6 hours of graduate level courses in education and 5830. Students selecting the management option must complete 6 hours of graduate level management courses and 5730. Students selecting the advanced clinical practice option must complete 5580 and 5680 if their clinical option is primary care, 5320 and 5340 if their clinical option is secondary care, 5520 and 5540 if their clinical option is community mental health, or 5285 and 5270 if their clinical option is parent-child nursing. Except for electives, all courses taken in other colleges must be approved in advance by the student's faculty advisor.
8. Students whose baccalaureate degrees are not in Nursing must complete the equivalent of a baccalaureate nursing major by taking or challenging a series of undergraduate nursing courses as determined by each student's major advisor.
9. If a student's clinical laboratory performance for any undergraduate or graduate nursing course is determined unsatisfactory, the grade for that course will be an 'F' regardless of any grades related to the theoretical component of the course.

10. If a student's clinical laboratory performance for any undergraduate or graduate nursing course is characterized by unethical or unprofessional behavior, the student will be required to withdraw from the program.

11. A student will be required to withdraw from the program if a grade of 'D' or 'F' is received for any required undergraduate or graduate nursing course.

REQUIREMENTS FOR SECOND MASTER'S DEGREE

1. Students must complete 60 hours at the graduate level (with a cumulative GPA of 3.0) unless they already have Master's or doctoral degrees. For the latter up to 15 hours may be applied to the second Master's degree, with approval of the student's committee, Dean of the College, and Vice Provost and Dean of the Graduate School.

Any hours so applied would be from courses in the first degree program that are directly relevant to the second. Hours from the first program to be applied to the second shall have been earned within the time limits (six years) established for the second.

Reduction of hour requirements, when appropriate, will not be used to reduce the residency requirements of the second Master's degree.

2. The 45 to 60 hours must include the following components:

   Core requirement
   17 hrs

Clinical concentration option
20-30 hrs

Role Preparation option
6-11 hrs

Electives
2-9 hrs

Total
45-60 hrs

4330 Nursing in the Specialties (2-4) Application of principles from behavioral, physical, social and nursing sciences to solution of nursing problems. Exploration of theories needed to maintain or restore homeostasis in clients experiencing selected physiological and/or behavioral deviations. Specific topics to be determined by faculty and students. Prereq: Consent of instructor. May be repeated. Maximum 6 hrs. E

5120 Secondary/Tertiary Nursing of Adults (6) Role of the clinical nurse specialist and nurse consultant with families to optimal health; application of advanced nursing, physiological, developmental and psychosocial theories and principles to delivery of health and nursing care to adults and their families who are experiencing acute illness episodes and related crises. Prereq: 5010, 5030, 5070. 3 hrs and 3 labs. W

5125 Nursing in Secondary Care Settings (4) Application of physiological, psychosocial, developmental, and nursing theories and concepts to care of hospitalized adults; utilization of assessment criteria to social theories to diagnosis, orders, intervention and evaluation of outcomes. For MSN students in ADN teaching track only. Prereq: 5010, 5030, 5070 and physical assessment course. Coreq: 5015. 1 hr and 3 labs. W

5130 Secondary/Tertiary Nursing of Adults II (6) Continuation of 5120 with further exploration of role of clinical nurse specialist; application of theories and concepts to nursing care of hospitalized adults with emphasis on analysis and utilization of nursing and health related research findings in delivery of health and nursing care. Prereq: 5020, 5120. Prereq or coreq: 5210. 3 hrs and 3 labs. Sp

5210 Applied Nursing Research (4) Utilization of research process to identify and investigate common nursing problems; critical assessment of nursing research methodology, development and critique of nursing research proposals. Prereq: 4440 or equivalent, graduate level statistics course. W

5220 Parent-Child Nursing (6) Care of childbearing and child-rearing families; health promotion and recognition of threats to health of mothers and children; child-bearing or child-rearing families in acute care or community settings. Prereq: 5010, 5030, 5070. 4 hrs and 2 labs W

5225 Advanced Parent Child Nursing (6) Continuation of 5220. Role of clinical specialist in working with childbearing or childrearing families, application of advanced physiological, psychosocial, and nursing theories to care of childbearing or childrearing clients and families. Prereq: 5220. Coreq: 5210. 4 hrs and 2 labs. Sp

5252 Nursing Care of Mothers and Children (4) Application of physiological, developmental, and nursing theories and concepts to nursing care of pediatric or maternity clients and families. Coreq: 5010, 5030, 5070 and physical assessment course. Coreq: 5015. 1 hr and 3 labs. Su


5270 Parent-Child Nursing Seminar (2) Issues and problems in delivering high quality parent-child nursing care; theories and concepts from 5680 as they affect role of parent-child clinical specialist. Prereq: 5680 Coreq: 5265. F

5310 Secondary/Tertiary Nursing Field Work I (8) Advanced clinical practice with opportunities to apply newly acquired nursing skills to more complex clinical nursing situations.

5320 Secondary/Tertiary Nursing Field Work II (9) Continuation of 5310 and application of knowledge and skills acquired in family and community health care delivery systems. Prereq: 5310 as they affect role of nursing research. Prereq: 5270. Coreq: 5265. F

5450 Family Centered Primary Care Nursing I (6) Primary care for children, including care of infants and children; care for families and individuals in child bearing and child rear-
Identification of issues and problems involved in delivery of community mental health nursing care; further analysis and exploration of theories and concepts included in 5580 as they affect the role of nurse as community mental health clinical specialist. Prereq: 5680. Coreq: 5520. F

5550 Primary Care Nursing Field Work I (8) Placement in selected off-campus primary health care delivery site for purposes of applying newly acquired knowledge and developing clinical skills necessary to function as a nurse practitioner. Prereq: 5460. Coreq: 5680. Su

5560 Primary Care Nursing Field Work II (9) Continuation of 5550 with further emphasis on acquisition of nurse practitioner skills coupled with ability to function more autonomously. Prereq: 5550. F

5630 Teaching Strategies and Practicum (6) Analysis and application of curricular and teaching modalities; field placement with supervised opportunities to provide both classroom and clinical instruction to undergraduate nursing students. Prereq: 6 hrs approved education courses and 5310, 5510, 5550, or 5255. 2 hrs and 3 labs. F

5632 Directed Study in Technical Nursing Education (5) Philosophy, history, and contemporary issues in technical nursing and nursing education; teaching strategies for adult learner in community college; in-depth investigation of selected topics. Prereq: 9 hrs approved education courses and 5630. Su

5660 Primary Care Nursing Seminar (2) Issues and problems involved in delivery of primary nursing care; further analysis and exploration of theories and concepts included in 5580 as they affect role of nurse as primary care provider. Prereq: 5680. Coreq: 5560. F

5680 Advanced Nursing Seminar (3) Theories of leadership, motivation, power, conflict, authority, change and decision making and their application to advanced clinical nursing practice; examination and analysis of role of nurse as health care provider and client—family advocate. Prereq or coreq: 5310 or 5550 or 5510. Su

5730 Management Strategies and Practicum (5) Analysis and application of managerial and supervisory theories and strategies; field placement in nursing service facility with supervised practice in nursing service administration. Prereq: 6 hrs approved management courses and 5310, 5510, 5550, or 5255. 2 hrs and 3 labs.

5770 Special Topics (1-3) In-depth study of selected nursing topics, problems, or issues not covered in other courses. Prereq: Consent of instructor. May be repeated. Maximum 6 hrs. E

5900 Graduate Seminar in Public Health (1-2) (Same as Public Health 5900, Nutrition and Food Science 5910, Physical Education 5900, and Social Work 5900.) S/NC only. E
4830 Introduction to Preservation (3) History and theory of architectural preservation and restoration. F

4831 Preservation Technology (3) Techniques of preservation: dating, methods of analysis, history of materials and technology used in old buildings. W

4832 Descriptive Analysis of Historic Buildings (3) Identification and analysis of characteristic elements of buildings from various architectural periods with emphasis on American architecture. Survey techniques. Sp

4833 Preservation Law (3) Legal aspects of contemporary preservation activity.

4850 Elementary Structural Matrix Methods (4) Introduction to generalized matrix methods of analysis of structures. Review of matrix algebra and vectors; development of member stiffness and flexibility matrices; assembly of structure stiffness and flexibility matrices. Prereq: Consent of instructor. (Same as Civil Engineering 4850 and Engineering Science and Mechanics 4850.) Su

4870 Architectural Photography (3) Photography as a design, research and presentation medium. Emphasis on architectural photography using black and white media. F, W, Sp

4871 Advanced Architectural Photography (3) Application of special photographic techniques with emphasis on color printing and processing. Prereq: Consent of instructor. F, W, Sp

4887 Structural Design for Protection Against Extreme Hazards (3) Probability, risk, human values, insurance. Survey of possible hazards; floods, fire, hurricanes, and tornadoes, earthquakes, nuclear effects, internal and external explosions. Building code and engineered design of steel, masonry, concrete, and wood structures to resist extreme effects. Protective construction for human and system needs. Fire protection engineering, fire phenomena, life safety and analysis, high-rise building fires.


4940 Proxemics (4) (Same as Interior Design 4940.) Interior Design is the primary department.

4950 Environment as Code (4) (Same as Interior Design 4950.) Interior Design is the primary department.
W.E. Barnett, Director

MAJOR
Biomedical Sciences

DEGREES
M.S., Ph.D.

Professors:
D. Ditten, Ph.D. Tennessee; D. E. Olins, Ph.D. Rockefeller.

Assistant Professor:
C. Soumoff, Ph.D. California (Los Angeles).

Research Professor:

Research Associate Professor:
E. C. Uberbacher, Ph.D. Pennsylvania

Shared Faculty:

*Staff of Oak Ridge Associated Universities

The University of Tennessee-Oak Ridge Graduate School of Biomedical Sciences, located within the Biology Division of Oak Ridge National Laboratory, offers programs leading to the Master of Science and Doctor of Philosophy degrees. The National Laboratory is a well-known center of basic research. The school utilizes the staff and facilities of this laboratory, and thus brings directly into the mainstream of full-time graduate study in the life sciences the talent and experience of that staff, as well as the most advanced research methods and technology.

The program of study, which incorporates a high faculty-to-student ratio, is based on intensive graduate courses supplemented by tutorial instruction, participation in a wide variety of seminars, and a heavy emphasis on communication skills, research training and independent study. The program encourages students to pursue graduate studies to the limits of their abilities.

The school is not departmentalized, and, apart from certain basic requirements, each student's curriculum is planned to meet individual needs, with the aim of giving: (1) strength in the basic sciences; (2) perception of the biomedical sciences as a whole; and (3) experience and training in a chosen specialty.

The concentration areas available for Master's thesis and Ph.D. dissertation work are biochemistry, biophysics, carcinogenesis, genetics, cellular, developmental and mammalian biology, and radiation biology. Included are such subjects as immunology, protein and enzyme chemistry, nucleic acid chemistry, cytology, radiation and environment biology, virology, developmental biology, experimental pathology, microbial and mammalian genetics, mutagenesis, and problems of aging.

ADMISSION REQUIREMENTS

A Bachelor's degree or its equivalent is required. Students with M.S., D.V.M., or M.D. degrees are also encouraged to apply. Completed applications, Graduate Record Examination scores and letters of reference should be sent to the address below. The student will need previous training in biology, calculus, physics, and organic and physical chemistry. A course in physical chemistry is offered by the School in order to meet the last requirement. It is recommended that deficiencies in meeting entrance requirements be eliminated prior to entrance.

Requests for application forms, information on admission, financial support, and housing should be sent to:
Director, University of Tennessee-Oak Ridge Graduate School of Biomedical Sciences, Biology Division, ORNL, Box Y, Oak Ridge, Tennessee 37831.

THE DOCTORAL PROGRAM

Requirements for the Ph.D. degree are:
1. Satisfactory (B grade or better) completion of the following core courses or their equivalent: Biochemistry (5110-20); Biophysics (5140); Genetics (5150); Molecular Genetics (5170); Cell Biology (5180-90); Mammalian Physiology (5200); and Statistics for Biologists (5740).
2. Three quarters of Biomedical Sciences Laboratory (5310-20-30-40).
3. Participation in at least one of the seminars during each quarter of residence after the first year is strongly recommended.
4. Satisfactory completion of formal advanced courses in the areas of the student's interests. The number and nature of the required advanced courses will vary depending upon the student's background and area of specialization.
5. Passing both written and oral comprehensive examinations.
6. A dissertation reporting the results of original and significant scientific research. A minimum of 36 quarter hours of course 6000 is required.
7. A final oral examination on the dissertation.
8. A final seminar presentation of the dissertation research.

SPECIAL MASTER OF SCIENCE DEGREE PROGRAM

The graduate faculty has designed a Master of Science program in Biomedical
Sciences primarily to fill the need for such a degree within the Oak Ridge National Laboratories, however a limited number of students from other institutions may be accepted if qualified and as space is available.

Requirements for the M.S. degree are:
1. Graduate credit or a proficiency in the following core courses: Biochemistry (5110-20); Cell Biology I (5180); Cell Biology II (5190); plus any three of the following four courses: Biophysics (5140); Genetics (5150); Molecular Genetics (5170); and Mammalian Physiology (5200).

Additional credits may be obtained (6 to 15 credit hours) with electives. The student will need previous training in biology, calculus, physics, organic and physical chemistry.

2. Forty-five credit hours of approved graduate courses including a minimum of 9 quarter hours for thesis (maximum 18 quarter hours of credit for course 5000).

3. For admission to candidacy: Completion of any required prerequisite courses and one quarter of graduate course work with a B average. Admission to candidacy forms must be filed at least one full quarter prior to receipt of degree.

4. A Master's Committee of three approved faculty members upon admission to candidacy.

5. A thesis reporting results of original and significant scientific research.

6. Passing a final oral (or oral and written) examination as determined by the student's committee.

The courses below are not necessarily taught every year.

5000 Thesis (1-15) P/NP only. E

5070-80 Physical Chemistry (3, 3) Thermodynamics, phase equilibria; chemical equilibrium, electromotive force, surface chemistry, electrolyte solutions, kinetics, conductance, viscosity, diffusion.


5140 Biophysics (3) Energy levels and excited stages of large molecules; optical instrumentation; adaptions to system perturbations; properties of macromolecules in solutions; molecular conformations; inter- and intramolecular forces; physical principles of microscopy. Coreq: 5070-80.

5150 General Genetics (3) Mendelian genetics, mitosis, and meiosis. Transmission genetics, mapping, and linkage.

5160 Advanced Genetics (3) Genetics of phage, bacteria, and eucaryotes. Mapping, linkage, mutation, cytoplasmic inheritance, mechanisms of recombination, chromosomal structure and replication. Prereq: 5150 or equivalent.

5170 Molecular Genetics (3) Molecular biology of genetic processes. Gene regulation; coding; protein synthesis; suppression of nonsense and nonsense mutation; mutagen mechanisms; complementation; recombination. Prereq: 5120, 5160.

5180 Cell Biology I (3) Structure and composition of major nuclear and cytoplasmic organelles of eukaryotic cells. Pertinent instruments and techniques; meiosis and mitosis; cell cycle; chromosome structure; nuclear RNA metabolism; nucleolus and ribosome biogenesis; survey of specialized cells. Structure of genetic transcription and translation in bacteria. Coreq: 5110.

5190 Cell Biology II (3) Comparative biochemical approach to cell structure and function. Membrane systems and metabolism; development and function of mitochondria, chloroplasts, peroxisomes and other organelles as related to metabolism and regulation; transport phenomena; cell cycle. Prereq: 5110, 5180. Coreq: 5120.

5200 Mammalian Physiology (4) Mammalian organ systems and their functions. Nervous, muscular, endocrine, digestive, respiratory, circulatory, reproductive, and excretory systems. Interrelationships of these systems and fundamental importance of interaction in contemporary biological research. Prereq: 5190.

5310-20-30-40 Biomedical Sciences Laboratory (3, 3, 3, 3) To acquaint students with both approaches and technologies in various areas of modern biology. Students spend a quarter in each of three or four laboratories conducting research in different areas of biomedical science. Required of all first-year students.

5430-60-90 Graduate Research Participation (3, 6, 9) Special advanced research project covering area not related to dissertation research. Topics chosen with consent of instructor. May be repeated.

5510-20-30-40 Special Topics in Biomedical Sciences (3, 3, 3, 3) Tutorials or formal lectures. Potential topics include X-ray diffraction and crystallography; excited-state biophysics; physical chemistry of macromolecules; computer science; pathology; cytolgy and cytochemistry; mammalian genetics; human genetics; cancer research; plant physiology; radiology biology; aging research. Additional courses developed on any subject of mutual interest to individual students and staff members. May be repeated.

5740 Statistics for Biologists (3) Application and interpretation of statistical methods in data analysis. Random variables, binomial, normal, t-distribution, binomial, normal, t-distribution, analysis of variance, correlation and association; linear regression. Prereq: Introductory statistics or consent of instructor.

6000 Doctoral Research and Dissertation (3-15) P/NP only. E


6240 Chemistry and Metabolism of Lipids (3) Nomenclature, chromatographic isolation, chemistry, physical properties, and enzymology of lipids. Hormonal action of prostaglandins and role of lipids in membranes, genetic expression, and nervous tissue. Lipid biochemistry of mammalian; comparative aspects, particularly lipid pathways in bacteria and yeast. Prereq: 5110-20.

6251 Molecular Biology of RNA (3) RNA synthesis and metabolism in prokaryotes, eukaryotes, and their viruses. Prereq: 5110-20 or consent of instructor.

6252 Molecular Biology of DNA (3) DNA replication, repair, and recombination. Recent advances in mechanisms at molecular level using biochemical and genetic techniques. Prereq: 5110-20 or consent of instructor.

6270 Viral Carcinogenesis (3) History of viral oncolgy and descriptive catalog of tumor viruses. Biology of normal and transformed cells. DNA tumor viruses; replication cycle; transformation; genetics; natural history; RNA tumor viruses; endogenous and exogenous states; genetics; induction; transformation; natural history.

Graduate School of Library and Information Science

Ann E. Prentice, Director

MAJOR
Library Science

DEGREE
M.S.L.S.

Professors:

Assistant Professors:
J. M. Pemberton, Ph.D., Tennessee; W. C. Robinson, Ph.D., Illinois; G. M. Sinkanks, Ph.D., Pittsburgh.

The Graduate School of Library and Information Science provides a program leading to the degree of Master of Science in Library Science. The program includes a graduate curriculum leading to the degree of Master of Science in Library Science.

The program leading to the degree of Master of Science in Library Science involves a total of 51 quarter hours of graduate courses, 18 hours of which form a core curriculum required of all students. Either a thesis or a non-thesis option is available, with 9 hours allowed for thesis credit. At least 36 hours must be taken in the Graduate School of Library and Information Science, allowing up to 15 hours outside the School. Upon completion of the program, all students are subject to an examination. For students who elect the thesis option, the examination will be a defense of the thesis. Students who elect the non-thesis option will be given a written comprehensive examination.

FINANCIAL ASSISTANCE

Opportunities with the University of Tennessee Libraries may provide a work-study opportunity for selected students who wish to obtain experience in academic librarianship while pursuing the degree. Such students usually work at least 20 hours each week and thus may extend the period required for the degree. Similar opportunities exist with some other libraries and information agencies in the Knoxville area.

Work opportunities in a scientific-technical environment are available through subcontracting with Oak Ridge National Laboratory and the Department of Energy.

A limited number of graduate assistantships are available through the School for the degree. Assistantships of this type carry a waiver of tuition and fees as well as a stipend, and require that recipients work 10 hours per week in the School.

The SREB Academic Common Market applies to applicants from Arkansas, Georgia, and Virginia.

Information on financial assistance is available from the Director of the Graduate School of Library and Information Science.

4140 Libraries and Librarianship (3) Librarianship as an occupation; its organization, responsibilities, problems and prospects. F, W, Su

4150 School Library Administration (3) Objectives, functions, and place of school library; relationship to local and state services; cooperative planning for quarters and materials; evaluation. (Same as Curriculum and Instruction 4150.) W, Su

4160 School Library Media Program Management (3) Attitudes, knowledge and skills necessary to manage a school library media program at building and district levels. Curricular services and role of school library media program in curriculum development. Application of technology to program implementation. Prereq: 4150 or consent of instructor. Sp

4270 Organization of Library Collections (3) Acquisitions, cataloging and maintenance of library collections. F, W

4310 History of the Book (3) History of writing and various methods of bookmaking from earliest times through 19th century. W

4320 Adult Materials and Reading Interests (3) Fiction and subject categories, popular and standard; evaluation of materials to meet adult interests; consideration of selection aids.

4330 Introduction to Reference Materials (3) Basic information resources and services for all libraries. F, W, Su

4750 Utilization of Instructional Media (3) (Same as Curriculum and Instruction 4750 and Vocation- al-Technical Education 4750.) E

5000 Thesis (1-15) P/NP only. E

5002 Non-Thesis Graduation Completion (3-15) Required for the non-thesis student not otherwise registered during any quarter when such a student uses university facilities and/or faculty time before degree is completed. Degree not be used toward degree requirements. May be repeated. S/NC only. E

5110-20-30 Problems in Library Science (3, 3, 3) May be repeated with consent of school. E
5140 Research Methods in Library Science (3) Research methods applicable to librarianship. Process and conduct of research; analysis of published research. W, Sp, Su

5210 Sources and Services for the Social Sciences (3) English and non-English literature and bibliographical sources in education, economics, political science, history, geography, anthropology, psychology, and sociology; organization of collections for optimum use. Prereq: 4330. W

5220 Sources and Services for the Natural Sciences (3) English and non-English literature and bibliographical sources in mathematics, physics, astronomy, chemistry, geology, biology and medicine; organization of collections for optimum use. Prereq: 4330. Sp

5230 Sources and Services for the Humanities (3) English and non-English literature and bibliographical sources in literature and language, fine arts, music, philosophy and religion; organization of collections for optimum use. Prereq: 4330. Su

5240 Organization of Library Collections II (3) Construction and maintenance of library catalog as retrieval instrument; indexing and subject analysis theory, comparative classification with emphasis on Library of Congress system, and problems in reclassification. Prereq: 4270. F, Sp

5245 Technical Services Management (3) Issues and developments in larger collections: departmental organization and procedure, cooperative programs, national and international bibliographic standards, catalog automation programs. Prereq: 4270, 5240. May be taken concurrently with 5240 with consent of instructor. F

5250 Government Publications (3) Acquisition, organization and utilization of U.S. federal government publications, legislative, executive and judicial branches. Prereq: 4330 or consent of instructor. F

5260 Government Publications II (3) Acquisition, organization and utilization of publications of state and local governments in U.S.; publications of foreign governments and intergovernmental organizations: United Nations, UNESCO. Prereq: 4330 or consent of instructor. W

5270 Legal Bibliography (3) Introduction to literature of Anglo-American jurisprudence. Use of reports, statutes, administrative regulations and decisions, treaties, periodicals, and indexes as bibliographic tools. Sp

5300 Library Management (3) Management and organization concepts applicable to libraries and librarians. F, Sp

5310 Multitype Networks (3) Organization, structure, governance, planning, evaluation, and service in state, regional, national, and international networking of information. W, Sp

5330 Academic Libraries (3) Persistent and current problems. Topics vary depending upon needs and interests of group. W

5360 Special Libraries and Information Centers (3) Development and present status, scope and objectives, administrative and organizational problems, acquisition, organization, and use of information. W

5370 The Library in the Community (3) Public library as social agency; role in education and communication systems of community. F

5380 Seminar in Library and Information Science (3) Advanced study of varying topics. Prereq: Consent of instructor. May be repeated. Maximum 6 hrs.

5400 Library Facilities (3) Problems inherent in planning and construction of library quarters. Interrelated needs of staff, materials, and user space requirements. Sp, Su


5610 Nonbook Resources (3) Selection, processing, storage and utilization; films, video technology, sound recordings and microforms as information media. Prereq: 5500 or consent of instructor. F, Sp

5615 Serials (3) Serials collections: selection, acquisition, bibliography control, process, storage, maintenance, and public service. Prereq: 5500 or consent of instructor. W

5530 Contemporary Publishing (3) Creation, production, marketing, and distribution of materials acquired by libraries, with special attention to various types of publishers. F

5540 Archives and Manuscripts (3) Problems involved in acquisition, organization, description, storage, preservation and utilization. Prereq: Consent of instructor. W

5550 Records Management for Information Professionals (3) Functional elements and objectives of records management within organizations, emphasizing control of creation, distribution, retention, storage, retrieval, protection, and disposition regardless of medium. Prereq: 4330, 4270, or consent of instructor. Sp

5605 Development of Children's Literature (3) Children's literature from earliest times to 20th century. Representative titles of particular periods. W


5625 Resources for Young Adults (3) Critical survey of library materials for young adults with emphasis on personal, vocational and recreational needs and interests. Evaluation, selection, and utilization for school and public libraries. W

5635 Library Services and Programs for Youth (3) Philosophy and objectives of public and school library services for children and young adults. Reading, listening and viewing guidance for individuals and groups. Program planning, implementation and evaluation. Prereq: 5615 or 5625 or consent of instructor. Su

5645 Traditional Literature and Oral Narration (3) Nature of traditional materials and principles of collection; reference sources for folk literature; history and techniques of storytelling; use of traditional materials with all age groups. F

5691 Advanced Production of Audiovisual Software (3) (Same as Curriculum and Instruction 5691.)

5700 Automation of Library Processes (3) Computer concepts and operations; applications to basic library operations: acquisitions, catalogs, circulation and serials. Prereq: 4270, 5500, or consent of instructor. F, W, Su

5710 Introduction to Information Science (3) Content and method of information science; application of research findings to general library practice. F, Su

5715 Information in Society (3) Characteristics of an information society, nature of knowledge and information, use and effect of media. W

5720 Information Systems Analysis and Design (3) Examination and evaluation of tools and methodologies in library/information center systems planning and implementation. Role and training of systems analyst, systems study from planning through implementation and evaluation, and related topics. Prereq: 5700 or consent of instructor. W

5725 Organization of Materials for Information Storage and Retrieval (3) Principles and techniques in organization and description of materials for input to information storage and retrieval systems: indexing, abstracting, document representation, thesaurus construction and maintenance, related topics. Prereq: 5710 or consent of instructor. W

5730 Information Retrieval Systems Laboratory (3) Comparative capabilities of various types of information retrieval systems; analyzing performance of systems to arrive at generalizations with respect to theory, design and operation of information retrieval systems. Sp

5750 Information Technologies (3) Computer-based and non-computer related media and methods for information storage, retrieval, and transfer within and external to library environment; existing and prototype hardware and software and interfacing of these technologies. Prereq: 5700 or consent of instructor. Sp

5999 Practicum (3 or 6 or 9) Opportunity to translate theory into practice under guidance of qualified information professionals. Prereq: Completion of the 18-hour core curriculum. 3-hr section may be repeated with consent of practicum coordinator. Maximum 9 hrs.
The Graduate School of Planning offers a program of studies leading to the professional degree of Master of Science in Planning. Students take a core curriculum in the theory, techniques and practice of urban and regional planning. Each student also selects a concentration in one of the following areas: land use planning, transportation planning, analytical methods in planning, regional planning and development, real estate development planning, environmental planning, economic development planning, or other faculty approved speciality.

The M.S.P. degree program prepares planners for a diversity of career opportunities in both the public and private sectors. Graduates are candidates for professional positions in regional, city, county, and metropolitan planning agencies; in local, state and federal agencies concerned with physical, economic and administrative planning; in private business and organizations dealing with development problems; and in private consulting practice.

The Graduate School of Planning is accredited by the Planning Accreditation Board, a joint undertaking of the American Institute of Certified Planners and the Association of Collegiate Schools of Planning. All inquiries about the program should be addressed to the Director of the School.

**Admission Requirements:** All applicants should submit two letters of recommendation with their applications. Reference letters should be from teachers familiar with the applicant’s undergraduate or, where applicable, graduate academic record. If the applicant has had prior planning experience, a letter from a supervisor or other person familiar with the work of the applicant should also be provided. All applicants must submit a statement of career goals. Graduate Record Examination scores are not required, but applicants are encouraged to submit them.

The M.S.P. degree is approved for SREB Academic Common Market participation in Arkansas, Kentucky, South Carolina and West Virginia.

**THE MASTER'S PROGRAM**

Each student will be required to demonstrate competence in individual research. This may take either of two forms:

- **Option I—Complete a thesis for 9 hours credit:**
  - Each student is required to develop a thesis under the direction of their advisor. The thesis is a major study on the subject.
  - It normally requires two academic years to complete the program. Transfer credits from other institutions or programs may be accepted, up to a maximum of 15 quarter hours; subject to approval of the School and The Graduate School.

- **Option II—Complete a major study with acceptable documentation.** In order to be eligible for the major study option, the student must have completed at least 24 hours of graduate course work and have attained at least a 3.5 cumulative grade point average (at the time of approval of the major study proposal). The student meeting these criteria may present a proposal to his/her committee for a major study which will include at least 9 hours of subsequent elective course work related to the study topic. The proposal shall justify the selection of the topic, problem or issue and the approach to the study.
  - Each student will be required to complete a minimum of 72 hours credit of which 48 hours must be in courses offered in planning.
  - The following courses are the required core curriculum for the M.S.P. degree: 5001, 5060, 5100, 5110, 5130, 5140, 5141, 5150 or 5155, 5180, 5280, 5285, 5340, 5400, and 5465.
  - Each student is required to develop an area of specialized competence in addition to the core curriculum. After selecting the area of concentration, usually by the end of the second quarter, the student takes a prescribed set of courses in the subject area.
  - Further enhancement of the concentration is gained by taking added elective courses in the subject and by focusing the thesis or major study on the subject. Speciality courses are drawn from the School curriculum and from other departments in the university.
  - A student may propose an individualized specialty program, consisting of at least 12 hours of coursework, subject to approval of the student’s committee.

A work internship is recommended, but not required, during the summer between the first and second year of the program. Students who do not have prior experience in comprehensive plan preparation are advised to enroll in an intensive nine credit hour synthesis project course sequence.

It normally requires two academic years to complete the program. Transfer credits from other institutions or programs may be accepted, up to a maximum of 15 quarter hours; subject to approval of the School and The Graduate School.

**4100 Survey of Planning (3)** History of city development and of planning with special attention to the U.S. experience in urban and other levels of planning. Graduate credit. Not for credit for M.S.P. degree. F

**5000 Thesis (1-15)** P/NP only. E

**5001 Thesis and Major Paper Proposal Writing (1)** Preparation of thesis or major paper proposal. The thesis may be written in partial fulfillment of the requirements of the degree program. It normally requires two academic years to complete the program. Transfer credits from other institutions or programs may be accepted, up to a maximum of 15 quarter hours; subject to approval of the School and The Graduate School. F, Su

**5002 Non-Thesis Graduation Completion (3-15)** Required for the non-thesis student not otherwise registered during any quarter when such a student uses university facilities and/or faculty time before degree is completed. May not be used toward degree requirements. May be repeated. S/NC only. E

**5005 The Planning Process (3)** Identification and examination of generic aspects of planning process and planning techniques applied in various settings. Not for credit for M.S.P. degree. F, Su

**5040 Communications for Planners (3)** Communications in planning operations and in planning process.

**5060 Planning Graphics (1)** Graphics in planning: presentation techniques, mapping, three dimensional modeling and land form analysis.

J.A. Spencer, Director

MAJOR DEGREE
Planning M.S.P.

Professors:

Associate Professors:

Assistant Professors:
P. Fisher, Ph.D.; Florida State; A. Loeb, Ph.D.; Missouri.

The Graduate School of Planning is addressed to the Director of the School.

Institute of Certified Planners and the Association of Collegiate Schools of Planning. Planning Accreditation Board, a joint undertaking of the American Planning Association. All inquiries about the program should be addressed to the Director of the School.

**Admission Requirements:** All applicants should submit two letters of recommendation with their applications. Reference letters should be from teachers familiar with the applicant’s undergraduate or, where applicable, graduate academic record. If the applicant has had prior planning experience, a letter from a supervisor or other person familiar with the work of the applicant should also be provided. All applicants must submit a statement of career goals. Graduate Record Examination scores are not required, but applicants are encouraged to submit them.

The M.S.P. degree is approved for SREB Academic Common Market participation in Arkansas, Kentucky, South Carolina and West Virginia.

**THE MASTER'S PROGRAM**

Each student will be required to demonstrate competence in individual research. This may take either of two forms:

- **Option I—Complete a thesis for 9 hours credit:**
  - Each student is required to develop a thesis under the direction of their advisor. The thesis is a major study on the subject.
  - It normally requires two academic years to complete the program. Transfer credits from other institutions or programs may be accepted, up to a maximum of 15 quarter hours; subject to approval of the School and The Graduate School.

- **Option II—Complete a major study with acceptable documentation.** In order to be eligible for the major study option, the student must have completed at least 24 hours of graduate course work and have attained at least a 3.5 cumulative grade point average (at the time of approval of the major study proposal). The student meeting these criteria may present a proposal to his/her committee for a major study which will include at least 9 hours of subsequent elective course work related to the study topic. The proposal shall justify the selection of the topic, problem or issue and the approach to the study.
  - Each student will be required to complete a minimum of 72 hours credit of which 48 hours must be in courses offered in planning.
  - The following courses are the required core curriculum for the M.S.P. degree: 5001, 5060, 5100, 5110, 5130, 5140, 5141, 5150 or 5155, 5180, 5280, 5285, 5340, 5400, and 5465.
  - Each student is required to develop an area of specialized competence in addition to the core curriculum. After selecting the area of concentration, usually by the end of the second quarter, the student takes a prescribed set of courses in the subject area.
  - Further enhancement of the concentration is gained by taking added elective courses in the subject and by focusing the thesis or major study on the subject. Speciality courses are drawn from the School curriculum and from other departments in the university.
  - A student may propose an individualized specialty program, consisting of at least 12 hours of coursework, subject to approval of the student’s committee.

A work internship is recommended, but not required, during the summer between the first and second year of the program. Students who do not have prior experience in comprehensive plan preparation are advised to enroll in an intensive nine credit hour synthesis project course sequence.

It normally requires two academic years to complete the program. Transfer credits from other institutions or programs may be accepted, up to a maximum of 15 quarter hours; subject to approval of the School and The Graduate School.

**4100 Survey of Planning (3)** History of city development and of planning with special attention to the U.S. experience in urban and other levels of planning. State of the art, the process, the comprehensive plan, implementation devices. Planning issues in society. Not for credit for M.S.P. degree. F

**5000 Thesis (1-15)** P/NP only. E

**5001 Thesis and Major Paper Proposal Writing (1)** Preparation of thesis or major paper proposal. The thesis may be written in partial fulfillment of the requirements of the degree program. It normally requires two academic years to complete the program. Transfer credits from other institutions or programs may be accepted, up to a maximum of 15 quarter hours; subject to approval of the School and The Graduate School. F, Su

**5002 Non-Thesis Graduation Completion (3-15)** Required for the non-thesis student not otherwise registered during any quarter when such a student uses university facilities and/or faculty time before degree is completed. May not be used toward degree requirements. May be repeated. S/NC only. E

**5005 The Planning Process (3)** Identification and examination of generic aspects of planning process and planning techniques applied in various settings. Not for credit for M.S.P. degree. F, Su

**5040 Communications for Planners (3)** Communications in planning operations and in planning process.

**5060 Planning Graphics (1)** Graphics in planning: presentation techniques, mapping, three dimensional modeling and land form analysis.
The University of Tennessee School of Social Work has a special advanced standing/accelerated program which enables eligible candidates to complete the M.S.S.W. degree in four quarters. This advanced standing/accelerated program is approved by the Council on Social Work Education.

Students who qualify for the Accelerated Program must:
1. Have achieved a 3.0 or above grade point average (on a 4.0 scale) in undergraduate work.
2. Have completed an undergraduate major in social work from a program accredited by the Council on Social Work Education, or an undergraduate major in a related area which included a supervised field practice component, or have completed at least two years of full-time employment in social work practice.
3. Pass a qualifying examination administered by the School of Social Work faculty in early spring.

The accelerated programs begin in the Nashville Branch in June with an intensive ten-week term from which students proceed in the fall into the regular second-year curriculum. Application for admission to the
accelerated program is through the regular admission process. Applications should be filed not later than January 31 for the Nashville program.

PART-TIME PROGRAM
Planned part-time programs are available in all three branches of the School. Admission requirements are the same as for full-time study. Course work can be completed over a three- or four-year period.

THE PROFESSIONAL FOUNDATION
The professional foundation is a 30-quarter hour sequence of five basic areas required of all students before entering either of the concentration programs. As the initial phase of the school educational program, the foundation curriculum contributes to the process of socialization and professional identification, and presents students with a comprehensive and broad knowledge base from which to operate in the future as practitioners, administrators, and planners.

Credit Hours

<table>
<thead>
<tr>
<th>Fall Quarter, First Year</th>
<th>3</th>
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<tbody>
<tr>
<td>5070 Social Work Research I</td>
<td>3</td>
</tr>
<tr>
<td>5110 Social Welfare Policy and Services I</td>
<td>3</td>
</tr>
<tr>
<td>5210 Human Behavior and Social Environment I</td>
<td>3</td>
</tr>
<tr>
<td>5410 Social Work Practice I</td>
<td>3</td>
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<tr>
<td>5910 Field Practice</td>
<td>3</td>
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<th>Winter Quarter, First Year</th>
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<tbody>
<tr>
<td>5080 Social Work Research II</td>
<td>2</td>
</tr>
<tr>
<td>5120 Social Welfare Policy and Services II</td>
<td>2</td>
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<tr>
<td>5220 Human Behavior and Social Environment II</td>
<td>2</td>
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<tr>
<td>5420 Social Work Practice II</td>
<td>2</td>
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<tr>
<td>5920 Field Practice</td>
<td>2</td>
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<tr>
<td>TOTAL QUARTER HOURS</td>
<td>15</td>
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THE REQUIRED CONCENTRATION
Upon completion of the foundation curriculum (at the beginning of the third quarter), each student selects a concentration in either social work treatment or social welfare administration and planning and devotes the final four quarters of the program to required concentration courses and electives. Students must take 15 hours in the required concentration. Students may take courses in the other required concentration as electives. Although each branch offers a variety of elective courses, not every elective is offered every year at every branch.

Credit Hours

<table>
<thead>
<tr>
<th>Spring Quarter, First Year</th>
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<tbody>
<tr>
<td>5930 Field Practice</td>
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<tr>
<td>5125 Social Work With Oppressed Populations</td>
<td>4</td>
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<tr>
<td>Specialization Courses and Electives</td>
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<tbody>
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<td>Specialization Courses and Electives</td>
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</tr>
<tr>
<td>5940 Field Practice</td>
<td>6</td>
</tr>
<tr>
<td>Specialization Courses or Electives</td>
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<td>TOTAL QUARTER HOURS</td>
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<th>Spring Quarter, Second Year</th>
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<tbody>
<tr>
<td>Specialization Courses and Electives</td>
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<tr>
<td>5950 Field Practice</td>
<td>6</td>
</tr>
<tr>
<td>Electives</td>
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<tr>
<td>TOTAL QUARTER HOURS</td>
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AREAS OF SPECIALIZATION
Social Work Treatment: The social work treatment concentration provides the educational basis for practice with individuals, families, and groups in order to enhance their social functioning, ameliorate problems, and prevent social dysfunction. The specializ-

ization attempts to develop a thorough knowledge of the theory and methodology basic to varied individual, family, and group methods applicable in the treatment of diverse client problems.

Social Welfare Administration and Planning: The social welfare administration and planning concentration provides the educational basis for leadership in the design, implementation, and continued delivery of effective human service programs at local, regional and state levels. This concentration emphasizes theory and skills related to administration and planning, and permits considerable flexibility in tailoring a program to fit the student's individual interests, capabilities, and career goals.

FIELD PRACTICE
Field instruction is a critical component of the student's first- and second-year program. Because the UT School of Social Work cooperates with a wide range of social agencies and human service programs in the principal cities in Tennessee and areas immediately adjacent to the State, the School is able to provide field placements in a variety of social work practice areas. The faculty works closely with the placement agency and the field instructor to insure that the student has a quality field practice experience which meets the objectives of the core curriculum and the specialization.

The first-year curriculum is on a concurrent class and field plan, with students engaged in one classroom study two or three days per week and in field practice the remainder of the week. First-year agency placements are selected to provide the student with practice experiences related to the foundation curriculum content and beginning specialization. Within the placement, each student's experiences are planned and designed according to the educational needs.

In the second year, students are engaged full time in classroom courses during the fall quarter. The winter and spring quarters each consist of a block field placement of four days per week and at least one concurrent classroom course each quarter. Second-year placements are selected according to the student's area of specialization, individual career interests, and educational needs. The student works closely with the field practice coordinator and the specialization committee in selection of the second-year placement. The second-year field practice experience focuses on the integration of social work knowledge and values, and emphasizes the acquisition and development of full practice skills.

Students are responsible for meeting the requirements of their placement agencies in terms of office hours and workload coverage. This responsibility takes precedence over scheduled University breaks and may result in variations in holidays and office hours for the student.

DEGREE REQUIREMENTS
1. Satisfactory completion of the curriculum.
2. All courses taken as part of the degree programs, whether taken within the School of Social Work or outside, must be acceptable for graduate credit, relevant to social work and to the student's career objectives, and have the approval of the student's faculty advisor.
3. Achievement of a B average or better on all work presented for the Master's degree.
4. Completion of each required course at a satisfactory level (a grade of C or above). Graduate courses may not be repeated to raise a grade.
5. Students who elect a thesis must pass an oral examination conducted by a faculty committee.
6. Students who elect a non-thesis option must pass a written comprehensive examination.
7. Credits to be counted toward the degree must be earned within six years from the beginning date of the earliest course applied toward the degree, except in cases where permission to update courses has been granted.
8. The minimum number of credit hours required for a degree shall be 79 hours including a maximum of 36 S/NC hours.
9. Performance at a satisfactory level in field practicum, which is designed to teach professional practice skills.

TRANSFER CREDITS
Courses completed in another accredited graduate school of social work are usually accepted for the University of Tennessee School of Social Work degree requirement providing the applicants meet the admission requirements to The Graduate School and The University of Tennessee School of Social Work, and if previous courses are equivalent to required or elective courses offered here. The University of Tennessee School of Social Work allows a maximum of 45 credit hours of graduate course work taken at another accredited institution to be transferred into the student's Master's program. Such work must have been taken for graduate resident credit and passed with a B or better. In addition, it must be part of an otherwise satisfactory graduate program (B average) and be approved by the branch director and the dean. This course work must be completed within the six-year period prior to the receipt of the degree. In addition, S/NC credit earned for the field practicum is also accepted.

THE DOCTORAL PROGRAM
The UT School of Social Work offers a Doctor of Philosophy degree with a major in Social Work. This newly approved Ph.D. program began fall quarter, 1983.

The focus of social work education at the doctoral level is to foster the development within students of an attitude of scientific method to improve and extend the knowledge base of social work practice and commitment to reflect this attitude, and competence in leadership roles in social work education, research, and practice. The character of the UT School of Social Work doctoral program will be derived from its focus upon:

- Analysis and evaluation of the interrelationships between direct intervention and administration and planning practice and between each of them and their social policy, programmatic, organizational and community context.

- Within this interrelational framework, or research-based knowledge to inform and guide social work practice, social policy, planning and social welfare program development.
The core courses will be offered in four quarters on the Knoxville campus. However, students will be assigned to one of the three Branches for an internship and to complete dissertation research under the supervision of qualified faculty.

Requirements for admission to the doctoral program are being developed. Inquiries and requests for admission should be sent to: Doctoral Program Admissions, UT School of Social Work, Henson Hall, Knoxville, TN 37996-3333, (815) 974-3175.

Graduate students majoring in fields other than social work are admitted to certain social work courses with the approval of the School of Social Work and the student's major professor.

5000 Thesis (1-15) F/NP only. E

5002 Non-Thesis Graduation Completion (3-15) Required for the non-thesis student not otherwise registered during any quarter when such a student uses university facilities and/or faculty time before degree is completed. May not be used toward degree requirements. May be repeated. S/NC only. E

5070-80 Social Work Research I, II, (3, 3) Research methodology as applied to problems in social welfare. Techniques of direct and indirect research construction; data collection, analysis, and presentation; and research reporting. F, W

5081 Evaluative Research in Social Work (2-3) Advanced research course. Topics include sociopolitical, organizational, and methodological constraints of evaluative research; research design and methodology appropriate to evaluative research, and utilization of research findings. Prereq: Completion of foundation or consent of instructor. Sp

5082 Practicum in Social Work Research (3-9) Supervised practice in application of research methods and tools to social welfare program. Program may be generated by faculty, students, or social welfare agency or organization. Prereq: 5070-80 and consent of faculty member conducting investigation. S/NC only. Sp

5083 Directed Readings in Research (2-4) May be repeated with approval of instructor. Maximum 4 hrs. F, W, Sp

5090 Special Problems in Social Work (2-9) Individual or study on problems of special significance to the area of research or practice of major professor. May be repeated. F, W, Sp

5110 Social Welfare Policy and Services I (3) Interests of social work profession in development of contemporary social state, national, and international levels of organization. Contribution of social work professionals to formal policies. Analysis of environments through which social welfare services are proposed, authorized, financed, and programmed. Policy lab may be used to focus on beginning skill development. F

5120 Social Welfare Policy and Services II (3) Examination of theories of complex organizations applied to social welfare service delivery settings. Transformation of collective social welfare resources into divisible and indivisible social welfare benefits through organized instrumental action of professional nature. W

5125 Social Work with Oppressed Populations (2) Professional roles in working with individuals and groups in American society oppressed by distinguishing characteristics, i.e., age, gender, socio-economic class, religion for alleviation of oppression. Prereq: Completion of foundation or consent of instructor.

5130 Social Policy Analysis (2-3) "Policy science" techniques are considered for appropriateness in assessing social, political, and economic implications of policies. Application of policy analysis to the needs of communities, states, and regions. Prereq: Completion of foundation or consent of instructor. Sp

5161 Social Welfare Seminar (2-3) Problem area or field of practice analysis and case delivery, including perspective, knowledge, or evidence about social problem or condition and interrelationships among problem definition, social policy, and social work practice. Fields such as health, mental health, child and family welfare, mental retardation, education, correction, rehabilitation, and social development, income maintenance, and aging. Prereq: Completion of foundation or consent of instructor. May be repeated. Maximum 9 hrs. F, W

5210-30 Human Behavior and Social Environment I and II (3, 3) To individual, family, small group, and in context of functions, structures, roles, and processes. Human systems concepts, growth and development, functional developmental continuum. Stress, development and maturation, adaptive and maladaptive mechanisms. Open systems approach to understanding interrelationships of biological, psychological, and social variables with emphasis on implications of culture, race, ethnicity, and SES. Prereq: Completion of foundation or consent of instructor. Sp

5300 Special Accelerated Program in Social Work (15) Ten-week program providing qualified students with intensive academic and field practice experience that qualifies them to enter second year of graduate study upon successful completion of this term. S/NC only.

5310 Human Behavior and Social Environment (2-3) Explores and extends students' knowledge and range of adaptive, maladaptive, and pernicious behaviors from optimum social functioning through pathology. Prereq: Completion of foundation or consent of instructor. F

5311 Imaginative Perspectives on the Human Condition (2-3) Examination of usefulness to social work students of poetry, drama, and poetry, which illuminate and expand knowledge and appreciation of every person's humanity. Adaptive and maladaptive response to ordinary and extraordinary life situations and events, portrayed by creative writers. Artistic representation of molding of human personality and spirit through interaction of persons with one another and with society. Prereq: Completion of foundation or consent of instructor.

5312 Psychopathology and Social Deviance (2-3) Theories of and recent research in etiology of psychopathology and social variance. Categorical approach to psychopathology examined and differentiated from other approaches to human behavior. Prereq: Completion of foundation or consent of instructor. F

5313 Deviant Behavior of Children and Youth (2-3) Deviant behavior and conduct disorders in children and youth, etiology, symptomatology, and range of social services and treatment modalities with emphasis on theory-base, leadership, and social variance. Prereq: Completion of foundation or consent of instructor. F

5315 Human Sexual Problems (2-3) Desensitization and resensitization of personal and social attitudes toward sexual behavior, clinical problems and approaches to make social workers better able to deal with clients with sexual problems. Prereq: Completion of foundation or consent of instructor. F

5317 Social Work and Black Families (2-3) Historical and contemporary theories regarding Black families, emphasis on family as a system. Framework to assess and plan for Black families within service delivery systems. Prereq: Completion of foundation or consent of instructor. F

5400 Social Work Practice I (3) Basic theory, values and beginning skills development generic to social work practice. Prereq: Completion of foundation or consent of instructor.

5410 Social Work Practice II (3) Basic theory, values and beginning skills development generic to social work practice at various system levels. Combines classroom skills and laboratory experience. Prereq: Completion of foundation or consent of instructor. F

5420 Social Work Practice II (3) Assessment, planning, methodology and skills development fundamental to social work intervention. Combines classroom skills and laboratory experiences. Prereq: Completion of foundation or consent of instructor. F

5440 Family Therapy in Social Work Practice (2-3) Application of practice theory to assist in accurate assessment of skills in treatment of family as unit. Prereq: Completion of foundation or consent of instructor. W

5442 Short-term Treatment (2-3) Theory and practice of short-term treatment focusing on nature of methods, techniques, and techniques responsive to this approach, and designs of programs providing short-term treatment services. Specific techniques of assessment and treatment applied to problems with individuals in crisis. Prereq: Completion of foundation or consent of instructor. W

5443 Seminar on Behavior Therapy (2-3) Behavior modification methodology applied to clinical assessment, treatment, and beginning skill development. Prereq: Completion of foundation or consent of instructor. Prereq: Completion of foundation or consent of instructor. May be repeated. Maximum 6 hrs. Sp

5444 Social Work Practice with the Poor (2-3) Problems, issues, and dilemmas of practice in social services with poor and attribution of systems and programs which make that practice possible. Prereq: Completion of foundation or consent of instructor.

5460 Social Work Treatment with Individuals and Families (3) Basic psychological principles of contemporary social work practice. Prereq: Completion of foundation or consent of instructor.

5470 Contemporary Treatment Modalities: Individual and Family (2-3) Well-established and developing treatment modalities in terms of essential concepts. Differential factors and theory-based linkages. Prereq: Completion of foundation or consent of instructor.

5480 Special Topics in Social Work Treatment (2-3) Treatment with individuals and families. Prereq: Completion of foundation or consent of instructor. Prereq: Completion of foundation or consent of instructor. May be repeated. Maximum 9 hrs. F, W, Sp

5560 Social Work Treatment with Groups (3) Development of knowledge and skill in using group methods in social work practice, organization and forming groups, structuring group tasks and experiences, understanding group function in optimizing problem-solving effectiveness, facilitating transfer of change, and evaluating individual change and group effectiveness. Prereq: Completion of foundation or consent of instructor. F

5561 Interpersonal Skill Development (2-3) Training group employed to enhance interpersonal competence in application of human relations skills in social work practice. Prereq: Completion of foundation or consent of instructor.

5570 Comparative Methods of Group Treatment (2-3) Comparative analysis and critical review of theory and methodology of some of major group treatment modalities with emphasis on theory-base, leadership, techniques, procedures, and research. Prereq: Completion of foundation or consent of instructor.

5670 Social Planning (2-3) Theories and models of change such as planning, community organization students, or consent of instructor; employment for maximum effectiveness and efficiency. Prereq: Completion of foundation or consent of instructor. May be repeated. Maximum 6 hrs. F, W, Sp

5761 Planning and Management of Change in Social Welfare (2-3) Theories and models of change such as planned change, conflict, and evolutionary change in relation to organization and management of social service, local government and community development, and economic development related to social welfare services. Prereq: Completion of foundation or consent of instructor. F

5762 Organizational Design of Social Welfare Agencies (3) Emphasis on problem identification, organization structure and operational patterns to new tasks, objectives, and mandates. Planning and design techniques for new programs and systems. Design of programs for appropriate deployment of resources and personnel for maximum effectiveness and efficiency. Integration of theory and experience for development of practical skills for coping with variety of situations. Prereq: Second-year administration or completion of foundation or consent of instructor; consent of instructor. Sp

5761 or equivalent. Sp
5741 Supervision in Social Work (2-3) Dual roles of supervisor in various settings distinguished from consultation and direct practice. Responsibility and accountability to client system, supervisee, and executive, problems of middle management position of supervisor. Differences and similarities in supervision of varying levels of personnel. Goals, tasks, techniques, and processes in relation to individual and group supervision and field instruction. Prereq: Second-year status or consent of instructor.

5742 Consultation in Social Work (2-3) Constellation of roles, relationships, and behaviors required of consultant. Consultation as distinguished from supervision, administration, and direct practice. Types of consultation in relation to various settings and levels of responsibility. Processes and practices of consultation and dilemmas and pitfalls of consultant's position. Prereq: Second-year status or consent of instructor.

5743 Management of Human Resources in Social Welfare (2-3) Personnel function in administration of human services programs and agencies. Personnel recruitment, selection, appointment, and supervision; staff development; training and evaluation; salary and benefit systems; employer-employee relations; and fair employment practices. Prereq: Completion of Foundation or consent of instructor.

5744 Education and Training in Social Work (2-3) Philosophies and practices of teaching and learning related to adults in social work and social welfare. Distinctions between teaching, training, and education; unique aspects of adult learning; measurement issues; models and styles of education. Prereq: Completion of foundation or consent of instructor.

5761 Social Welfare Administration and Planning (3) Topics significant to managerial-planner role such as decision making, budgeting, planning, and programming. Prereq: Completion of Foundation or consent of instructor.

5762 Seminar in Social Welfare Administration and Planning (3) To assist students in acquiring specific administrative and planning techniques appropriate for social welfare delivery systems. Prereq: Completion of Foundation or consent of instructor.

5771 Information Systems and Decision Making (2-3) Decision-making in human services organizations, utilization of information in policy formulation, delivery of services and evaluation of organizational performance. Information generation, collection, processing, storage, retrieval, and utilization in relation to management control, evaluation and forecasting. Prereq: Completion of Foundation or consent of instructor.

5772 Financial Management for Social Welfare Administration (2-3) Centralized decision making related to allocation of scarce resources in social services organizations. Technical aids to budgetary choice and other aspects of financial management examined for utility, parsimony, and feasibility. Prereq: Completion of Foundation or consent of instructor.

5820 Social Aspects of Illness (2-3) Social, economic, and emotional problems arising from or related to illness and disability as they affect individual, family, and community. Services needed to obtain optimum results from medical care. Lectures, discussion, illustrative case material.

5825 Drugs: Use and Abuse (2-3) Survey and analysis of social, cultural, medical, and psychological factors underlying alcoholism and drug abuse, research and treatment innovations, social work with user and family. Prereq: Completion of Foundation or consent of instructor.

5826 Social Work Treatment for Marital Adjustment (2-3) Theories regarding social and cultural values and personality processes which gain expression in marriage, concepts regarding contemporary marriage styles, problem areas in marriages, and appropriate treatment approaches. Prereq: Completion of Foundation or consent of instructor.

5830 Law and Social Work (2-3) Basic principles of law as it relates to social work practice; organization of courts; legal aid societies; and other problems of legal nature that affect social work.

5860 Social Gerontology (2-3) Physical, psychological, and social aspects of aging; economic, and health status of aging; older person and family; community programs for aging; retirement—phenomenon of modern society.

5865 The Roles of Women (2-3) Roles and statuses of women; emphasis on contemporary American scene. Empirical research as well as popular literature. Assessed and achieved facets of women's statuses.

5900 Graduate Seminar in Public Health (1-2) (Same as Public Health 5900, Nursing 5900, Nutrition and Food Science 5910, and Physical Education 5900.) S/NC only.

5910-20 Field Practice (2, 4) Instruction and supervised practice in methods of social work with individuals, groups and communities. Prereq: Admission to the School; 5410 concurrently or prior to 5910; 5420 concurrently or prior to 5920. Must be taken in sequence. Required course. S/NC only. F; W

5930-40-50-60 Field Practice (4, 4-8, 4-8, 4-8) Special instruction and supervised practice methods of social work treatment, administration, and planning in community health and welfare programs and agencies. Prereq: Admission to the School. Must be taken in sequence. S/NC only. Sp; W; Sp

5961 Integrative Seminar (2) Integration of two-year MSW program; current issues in profession and pressing social problems. Symposia, discussions, simulations, and gaming situations to prepare graduating student to assume positions of responsibility and leadership within profession. Graduating student helped to plan toward continuing his/her education and professional development. S/NC only. Sp

6000 Doctoral Research and Dissertation (3-15) Pr/NP only.

6005 Proseminar in Social Work Research (1) May be repeated. Maximum 6 hrs. S/NC only.


6040 Evaluation Research on Social Work Practice, Programs, and Social Policy (3) Techniques and strategies for analysis of social policy and its impact on individuals and population groups; techniques for evaluating processes and outcomes of social work practices.

6045 Directed Study in Social Work Research (2-3) Advanced individual study, under faculty guidance, of social work practice issues. Prereq: Completion of Ph.D. Foundation courses or consent of instructor. May be repeated. Maximum 9 hrs.

6050 Research in Social Service Settings (2-3) Advanced research, under faculty supervision, of practice issues in community agency. Prereq: Completion of Ph.D. Foundation courses or consent of instructor. May be repeated. Maximum 9 hrs.

6110 Philosophical and Historical Perspectives of Social Work (3) Social, cultural, economic and political contexts for development of social work profession and modern welfare system.


6140 Seminar on Areas of Practice (3) Comparative analysis of knowledge requirements for service delivery in specific areas of practice.

6200 Issues in Social Work Knowledge Building (3) Advanced seminar on theory and model building in direct intervention, administration and planning. Prereq: Completion of Ph.D. Foundation courses or consent of instructor. May be repeated. Maximum 9 hrs.

6210 Advanced Seminar in Areas of Practice (3) Impact of social contexts on service delivery in selected area of practice. May be repeated. Maximum 9 hrs.

6220 Seminar/Practicum in Social Work Education (2-3) Curriculum issues and teaching methods; classroom experience in social work teaching.
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