Courses are subject to revision and final approval.

MUSIC

990*. Doctoral Independent Study
Fall, Spring, Summer. 1 to 10 credits.
May enroll for a maximum of 40 credits.
R: Approval of the School
Special projects, directed reading, and research arranged by an individual doctoral candidate and a faculty member in areas supplementing the regular course offerings.

991*. Special Topics
Fall, Spring, Summer. 1 to 10 credits.
May enroll for a maximum of 50 credits.
R: Approval of the School
Special topics supplementing regular course offerings proposed by faculty on a group study basis for doctoral candidates.

992A*. Seminar in Musicology
Spring. 3(0-0) May enroll for a maximum of 18 credits.
P: MUS 830 recommended
Study in various areas of musicology, such as early notations, music editing, or historical performance practice.
QP: MUS 824 QA: MUS 924

999*. Doctoral Dissertation Research
Fall, Spring, Summer. 1 to 60 credits.
May enroll for a maximum of 60 credits.
R: Approval of the School

NATURAL SCIENCE NSC

201*. Science Problem Solving Seminar I
Fall. 2(0-0)
P: Division of MTH 822 or MTH 116 or MTH 132 concurrently.
R: Approval of college
Problem solving principles and strategies used in the disciplines of science and mathematics. Activities reflecting the types of problems encountered.
QA: NSC 201

202*. Science Problem Solving Seminar II
Spring. 2(0-0)
P: NSC 201. R: Approval of college.
Continuation of NSC 201.
QA: NSC 202

203*. Draw Laboratory Directed Studies
Fall, Spring. 1 to 2 credits.
May enroll for a maximum of 6 credits.
P: NSC 202. R: Open only to Draw Laboratory students.
Using topics related to a faculty member's ongoing research, students explore the relationship between science and technology and social issues.
QA: NSC 203

401*. Science Laboratories for Secondary Schools
Fall. 4(4-8)
R: Open only to seniors in the College of Natural Science with a teacher certification option.
Laboratory equipment, supplies, demonstrations, exercises, and safety. Care of live organisms. Disposal of biological and chemical wastes. Field trips required.

499*. Research
Fall, Spring, Summer. 1 to 4 credits.
May enroll for a maximum of 5 credits.
P: Open only to juniors and seniors in the College of Natural Science with a teacher certification option.
Research in faculty laboratories. Oral and written presentations.

800*. Problems in Biological or Physical Science for Teachers
Fall, Spring, Summer. 3 to 8 credits.
May enroll for a maximum of 8 credits.
P: Secondary teachers not in degree program
Supervised investigation into problems in Biological or Physical Science.
QA: BS 800 PHS 890

802*. Essentials of Electron Microscopy
Fall, Spring. 2(3-0)
Principles of operation and uses of transmission and scanning electron microscopy. Related electron beam instruments. Specimen preparation and analytical methods.
QA: NSC 802

810*. Transmission Electron Microscopy Laboratory
Fall, Spring, Summer. 3(1-4)
P: NSC 802. R: Approval of department.
Use of transmission microscopes and preparative equipment. Preparation techniques for specimens, photographic and darkroom use, and interpretation of micrographs.
QP: NSC 802 QA: NSC 810

820*. Scanning Electron Microscopy: Energy Dispersive X-ray Microanalysis
Fall, Spring. 3(1-4)
P: NSC 802 or concurrently. R: Approval of department.
QP: NSC 802 QA: NSC 820 MUS 830

850*. Special Problems in Electron Microscopy
Fall, Spring, Summer. 1 to 3 credits.
May enroll for a maximum of 40 credits.
P: NSC 802; NSC 810 or NSC 820. R: Approval of department.
Use of electron microscopy techniques for selected research topics.
QP: NSC 802 AND NSC 810 OR NSC 820 QA: NSC 850

855*. Environmental and Behavioral Biology
Summer. 2(-)
P: Secondary certification in biology; 3 years teaching experience C: NSC 855 R: Master's Candidate or postbaccalaureate Natural Science Biological Science
Biotic and abiotic features of lakes, streams, forest ecosystems, and microbial ecosystems.
QA: NSC 855

856*. Environmental and Behavioral Biology Laboratory
Summer. 3(-)
P: Secondary certification in biology; 3 years teaching experience C: NSC 855 R: Master's Candidate or postbaccalaureate Natural Science Biological Science
Laboratory and field examinations of lake, stream and forest ecosystems.
QA: NSC 856

860*. Problem Solving Techniques in Physical Science
Summer. 3(-)
P: Secondary certification in chemistry or physics or earth science; R: Master's candidates or postbaccalaureate Natural Science Physical Science
Measurement and analysis of chemical, physical, and geological phenomena.

861*. Chemistry for Teachers
Summer. 2(-)
P: NSC 860 R: Master's candidates or postbaccalaureate Natural Science Physical Science
Intensive lecture and laboratory study of basic chemistry from a modern viewpoint.

862*. Physics for Teachers
Summer. 2(-)
P: NSC 861 R: Secondary certification in Physical Sciences. R: Open only to Master's degree or postbaccalaureate students in Physical Science.
Intensive lecture and laboratory study of basic physics from a modern viewpoint.

863*. Earth Science for Teachers
Summer. 2(-)
P: NSC 862 R: Secondary certification in chemistry, physics, earth science. R: Open only to Master's degree or postbaccalaureate students in Physical Science.
Intensive lecture and laboratory study of basic earth sciences from a modern viewpoint.

864*. Interdisciplinary Seminar in Physical Science
Summer. 2(-)
P: NSC 861 and 862 and 863 R: Master's degree candidates or postbaccalaureate Natural Science Physical Science
Interrelationships of the physical sciences. The role of society in regulation of science to technology transfer.

889*. Research for Inservice Teachers
Fall, Spring, Summer. 1 to 8 credits.
May enroll for a maximum of 10 credits.
R: Open only to in-service K-12 teachers with baccalaureate degree.
Research in faculty laboratories. Oral and written presentations.

Courses with an asterisk (*) have not been approved by the University Committee on Curriculum.
Descriptions of Courses

NATURAL SCIENCE

Courses are subject to revision and final approval.

899*. Master's Thesis Research for Teachers
Fall, Spring, Summer. 3 to 8 credits. May reenroll for a maximum of 10 credits.
R: Master's candidates Natural Science Masters candidate Approval by Department
QA: BS 899 PHS 899

901*. Frontiers in Biological Science
Fall, Spring. 1(-)
R: Second year certification in natural sciences; 3 yrs teaching experience EF R: Master's degree candidates or postbaccalaureate Natural Science Biological Science
Weekend workshops presented by disciplinary research faculty that explore the background and latest findings in their area of research.
QA: NSC 901

902*. Frontiers in Physical Science
Fall, Spring. 1(-)
R: Second year certification in natural sciences, 3 years teaching experience EF R: Master's degree candidates or postbaccalaureate Natural Science Physical Sciences
Weekend workshops presented by disciplinary research faculty that explore the background and latest findings in their area of research.

NURSING

202*. Introduction to Nursing Practice I
Fall. 3(2-3)
R: Open only to College of Nursing students. Not open to Registered Nurses. Theoretical concepts of nursing necessary for professional practice. Assessment, interpersonal communication, documentation, and decision-making.
QA: NE 202

204*. Introduction to Nursing Practice II
Spring. 4(2-6)
QA: NE 204

303*. Concepts of Nursing Care of the Adult
Fall, Spring. 4(4-0)
P: NUR 204. C: NUR 304 R: Open only to College of Nursing students.
Nursing care for adults at various levels of health and illness. Prototype health states with emphasis on associated nursing diagnosis and professional standards of care.
QA: NE 303 NE 403

304*. Practicum in Nursing Care of the Adult
Fall, Spring. 4(0-12)
P: NUR 204. C: NUR 304 R: Open only to College of Nursing students.
Nursing care of the adult client with an emphasis on health promotion, disease prevention, care in acute and chronic illness, and rehabilitation.
QA: NE 304 NE 404

305*. Concepts of Nursing Care of the Childbearing Family
Fall, Spring. 4(2-0)
P: NUR 204. C: NUR 306 R: Open only to College of Nursing students. Concepts of holistic nursing care with culturally diverse childbearing families during the prenatal, intrapartum, and postpartum periods. Concepts of health promotion and risk factors in client care situations.
QA: NE 305

306*. Practicum in Nursing Care of the Childbearing Family
Fall, Spring. 3(0-9)
P: NUR 204. C: NUR 305 R: Open only to College of Nursing students.
Practicum in nursing care with culturally diverse childbearing families during the prenatal, intrapartum, and postpartum periods. Implementation of nursing care process in various settings. Levels of risk reduction and health promotion.
QA: NE 306

307*. Concepts of Nursing Care of Children and Their Families
Fall, Spring. 2(2-0)
P: NUR 204. C: NUR 308 R: Open only to College of Nursing students.
Theory and concepts related to the holistic care of children (infancy through adolescence) and their families.
QA: NE 307

308*. Practicum in Nursing Care of Children and Their Families
Fall, Spring. 2(2-0)
P: NUR 204. C: NUR 307 R: Open only to College of Nursing students.
Clinical application of the theoretical concepts presented in NUR 307. Variety of health settings will be utilized for clinical practice.
QA: NE 308

314*. Transition to Professional Nursing
Fall, Open only to College of Nursing Registered Nurses. Concepts and practice for role transition for Registered Nurse seeking degree completion. Assessment, documentation, interpersonal skills and concepts of aging with emphasis on clinical decision making and socialization to professional role.

319*. Introduction to Nursing Theory and Research
Spring. 3(0-9)
R: Open only to College of Nursing majors.
Major nursing theories and their application to practice. The research process, terminology and investigations undertaken in nursing.
QA: NE 418 NE 419

341*. Clinical Problems in Adaptation
Spring. 3(0-9)
R: Open only to College of Nursing majors.
Theoretical concepts related to individual's adaptive-maladaptive responses to stress. Emphasis on pathophysiology.
QA: NE 440

409*. Concepts of Psychiatric, Mental, and Community Health Nursing
Fall, Spring. 4(4-0)
R: Open only to College of Nursing majors.
Health care trends and issues in public and mental health. Role, responsibilities, and activities of nurses in the provision of care in public health and mental health.
QA: NE 408 NE 410

410*. Practicum in Community Health Nursing
Fall, Spring. 3(0-9)
C: NUR 409 R: Open only to College of Nursing majors.
Clinical experience in community health nursing focusing on application of public health and nursing principles in the care of individuals, families and aggregates in a variety of settings.
QA: NE 409

412*. Practicum in Psychiatric and Mental Health Nursing
Fall, Spring. 3(0-9)
C: NUR 409 R: Open only to College of Nursing majors.
Theoretical perspectives of behavior applied to mental health nursing in a practice setting. Advanced concepts of communication. Use of self, group and milieu are used to define the nurse's role.
QA: NE 411

413*. Issues in Professional Nursing
Fall, Spring. 2(2-0)
R: Open only to College of Nursing majors.
Past, current, and future impact of selected legal, economic, educational, social, political, ethical, and professional forces on health care and nursing practice at local, national, and international levels.
QA: NE 414

420*. Senior Practicum in Nursing
Fall, Spring. 4(1-9)
R: Open only to College of Nursing majors.
Synthesis and application of nursing concepts as they relate to health care delivery in a variety of health care settings.
QA: NE 420

422*. Nursing in Great Britain
Summer. 3(5-0)
R: Approval of College.
Historical evolution of nursing in the National Health Service: British nursing education, hospital and community health nursing, standards of care, research, and management. Influence of professional nursing upon British national health policies.

490*. Independent Study in Nursing
Fall, Spring, Summer. 1 to 4 credits. May reenroll for a maximum of 4 credits.
R: Open only to College of Nursing seniors.
Approval of college.
Individualized area of study in Nursing.
QA: NE 490

491*. Special Topics
Fall, Spring, Summer. 2 to 4 credits. May reenroll for a maximum of 8 credits.
R: Open only to College of Nursing majors.
Exploration of selected issues in nursing.
QA: NE 495

500*. Health Assessment for Advanced Nursing Practice
Spring. 3(2-3)
R: Approval of department.
Collecting subjective and objective data to describe the client's health history, health problems, coping mechanisms, beliefs and values, orientation, and physical status. Interviewing techniques and physical examination skills stressed.
QP: NE 560 QA: NE 560A QA 560B

501*. Clinical Nurse Specialist in Primary Care
Fall, Spring. 3(2-9)
R: Open only to graduate students in College of Nursing.
Practice concepts, role characteristics, and definitions critical to implementation of clinical nurse specialist role in primary care.
QA: NE 560

503*. Primary Care: Organizational Structure, Policy and Change
Spring. 3(2-0)
P: NUR 501 R: Open only to graduate students in College of Nursing.
Health care organizations in primary care. Roles of federal and state government in health care policy and their influence on health care organizations.
QP: NE 560 QA: NE 561