

MUSIC

990*. **Doctoral Independent Study**
Fall, Spring, Summer. 1 to 10 credits.
May reenroll 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 reenroll 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(3-0) May reenroll 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 practices.
QP: MUS 824 QA: MUS 924

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

NATURAL SCIENCE NSC

201*. **Science Problem Solving Seminar I**
Fall. 2(2-0)
P: Drew Section of MTH 0823 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(2-0)
P: NSC 201. R: Approval of college.
Continuation of NSC 201.
QA: NSC 202

203*. **Drew Laboratory Directed Studies**
Fall, Spring, Summer. 1 to 2 credits.
May reenroll for a maximum of 6 credits.
P: NSC 202. R: Open only to Drew 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(2-6)
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 reenroll for a maximum of 6 credits.
R: 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 reenroll 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(2-0)
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 microscope 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.
Use of scanning electron microscope and energy dispersive x-ray microanalysis. Machine variables, artifacts, quantitative analysis, specimen preparation, darkroom procedures.
QP: NSC 802 QA: NSC 820 NSC 840

825*. **Special Problems in Electron Microscopy**
Fall, Spring, Summer. 1 to 3 credits.
May reenroll for a maximum of 40 credits.
P: NSC 802; NSC 810 or NSC 820. Approval of department. R: Approval of department.
Use of electron microscopy techniques for selected research topics.
QP: NSC 802 AND NSC 810 OR NSC 820 QA: NSC 801

850*. **Cell and Molecular Biology**
Summer. 2(-)
P: Secondary certification in biology; 3 years teaching experience C: NSC 851 R: Master's candidates or Postbaccalaureate Natural Science Biological Science by application to Division of Science Education
Molecular basis of structure and function of cells. Protein structure and function, cell physiology, metabolic energy and transmission of genetic information.
QA: NSC 850

851*. **Cell and Molecular Biology Laboratory**
Summer. 3(-)
P: Secondary certification in biology; 3 years teaching experience C: NSC 850 R: Master's candidates or postbaccalaureate Natural Science Biological Science
Generation of laboratory exercises appropriate for secondary students.
QA: NSC 851

852*. **Interdisciplinary Seminar in Biological Science**
Fall, Spring, Summer. 1(-)
P: Approval of Division of Science Education R: Master's Candidates or postbaccalaureate Natural Science Biological Science
Interrelationships of biological science and technology. Role of society in regulation of research and technological innovations
QA: NSC 852

855*. **Environmental and Behavioral Biology**
Summer. 2(-)
P: Secondary certification in biology; 3 years teaching experience C: NSC 856 R: Master's Candidates 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 candidates 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 860; 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 860; secondary certification in chemistry, physics, earth science. <P
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 reenroll for a maximum of 10 credits.
R: Open only to inservice K-12 teachers with baccalaureate degrees.
Research in faculty laboratories. Oral and written presentations.

NATURAL SCIENCE

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(-)
 P: Secondary certification in natural sciences; 3 yrs. teaching experience <F
 R: Post baccalaureate or Master's candidates 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(-)
 P: Secondary certification in natural sciences, 3 years teaching experience <F
 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

NUR

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)
 P: NUR 202. R: Open only to College of Nursing students. Not open to Registered Nurses.
 Application of introductory nursing practice concepts in simulated and clinical practice settings. Development of introductory nursing practice psychomotor skills.
 QA: NE 203

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 303 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. 2(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 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. 3(0-9)
 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, Spring. 4(3-3)
 R: Open only to College of Nursing Registered Nurses.
 Concepts and practicum 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.
 QA: NE 215

319*. **Introduction to Nursing Theory and Research**
 Spring. 3(3-0)
 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(3-0)
 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 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. 5(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 8 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 6 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)
 P: Approval of department.
 Collecting subjective and objective data to describe the client's health history, health problems, coping mechanisms, belief and value orientation, and physical status. Interviewing techniques and physical examination skills stressed.
 QP: NE 560 QA: NE 580A NE 580B

501*. **Clinical Nurse Specialist in Primary Care**
 Fall. 2(2-0)
 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 Structures, Policy and Change**
 Spring. 2(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