

College of Nursing

Dean

- Julie Zerwic

Executive Associate Dean

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- Barbara Raket

Associate Dean for Undergraduate Programs

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Assistant Dean for Graduate Practice Programs

- Mary Dirks

Director, Ph.D. Program

- Stephanie Gilbertson-White

Undergraduate degree: B.S.N.

Graduate degrees: M.S.N.; D.N.P.; Ph.D. in nursing

Graduate certificates: adult gerontology acute care nurse practitioner; adult gerontology primary care nurse practitioner; family nurse practitioner; health systems; pediatric nurse practitioner-acute care; pediatric nurse practitioner-primary care; psychiatric/mental health nurse practitioner

Faculty: <https://nursing.uiowa.edu/faculty-staff/faculty-directory>

Website: <https://nursing.uiowa.edu/>

Courses

College of Nursing Courses

NURS:1020 First-Year Seminar 1 s.h.

Introduces first-year undergraduate students to the intellectual life of the University of Iowa; provides an opportunity to work closely with a faculty member or senior administrator; seminars help students make the transition to college-level learning through active participation in their own learning.

NURS:1030 Human Development and Behavior 3 s.h.

Normal developmental transitions experienced by individuals and family systems throughout the lifespan, including physical, cognitive, and social-emotional development. Requirements: nursing or nursing-interest major.

NURS:1800 Aging Matters: Introduction to Gerontology 3 s.h.

Overview of the field of gerontology from a bio-psycho-social framework; how the human body and brain age, effects of these biological changes on physical and cognitive functions, and interaction of these individual factors with societal contexts; broad perspective to give students a foundation in gerontology, paving the way for more advanced courses in biology of aging, psychology of aging, and global aging; for students from a wide range of disciplines and levels, no prior knowledge of aging required. GE: Social Sciences. Same as ASP:1800, CSD:1800, SSW:1800, TR:1800.

NURS:3099 Leadership U 1-3 s.h.

Development of leadership in nursing; application of leadership theory in practice by participating in activities such as attending professional organization meetings, acting as a delegate, writing legislation, holding a board position, or being part of a multidisciplinary or international team to organize events for community involvement. Requirements: nursing major.

NURS:3110 Healthcare Finance 3 s.h.

Basic structure of U.S. health care system and how it is funded; tools for making decisions about available financial resources.

NURS:3111 Diversity, Equity, and Inclusion for Health Professions 3 s.h.

Introduction to basic concepts of diversity, equity, inclusion, and social justice related to the health of marginalized populations; topics include bias along many lines of difference, discrimination in health care and structural racism from a historical context, systemic inequities in health care delivery and outcomes, and social determinants of health; exploration of strategies to advance health equity and improve health for all.

NURS:3128 Health Assessment and Communication Across the Lifespan 3 s.h.

Assessment and communication skills; development and application of cognitive skills to perform systematic, holistic, and culturally competent health assessments; emphasis on application of clinical reasoning involving assessment, nursing diagnoses, interventions, and outcomes. Corequisites: NURS:3138 and NURS:3160 and NURS:3518. Requirements: admission to the College of Nursing.

NURS:3138 Nursing and Pharmacological Interventions I 5 s.h.

First of a two-part series focusing on basic biophysical concepts that inform nursing and pharmacological interventions, including sleep, immobility, skin care, wound healing, infection, and human response to illness; selected disorders and/or diseases, including GI disease, disorders of bowel and urine elimination, diabetes, and cancer; introduction to health literacy and principles of health education. Prerequisites: CHEM:1070 and MATH:1440 and BIOL:1141 and ACB:3110 and MICR:3164 and (HHP:1300 or HHP:3500) and CHEM:1080. Corequisites: NURS:3128 and NURS:3160 and NURS:3518. Requirements: 64 s.h. of undergraduate coursework, including successful completion of required science courses and general education liberal arts and sciences requirements and electives.

NURS:3151 Introduction to Clinical Concepts for Nursing 2 s.h.

Introduction to aspects of nursing care including physical exam, health assessment, and psychomotor nursing interventions; students practice strategies to promote safe care of patients, including calculation of medications prior to administration; emphasis on effective patient communication, education, and integration of medical terminology; application of nursing interventions, psychomotor skills, and medication dosages and calculation; health, physical, and psychosocial assessment; first of a three-part laboratory and simulation series. Corequisites: NURS:3128 and NURS:3138 and NURS:3160 and NURS:3518. Requirements: admission to College of Nursing.

NURS:3160 Professional Role I: Professionalism and Patient Safety 3 s.h.

Introduction to inherent nursing values, history, theories, and scope of professional nursing; concepts of safety, risk identification, and clinical decision making; information technologies that promote quality and safety. Requirements: admission to the College of Nursing.

NURS:3198 Distance Education: Independent Study 1-3 s.h.

Supervised study designed for individual undergraduate students.

NURS:3199 Independent Study 1-3 s.h.

Supervised study designed for individual undergraduate students.

NURS:3438 Nursing and Pharmacological Interventions II 5 s.h.

Second of a two-part series focusing on complex biophysical concepts that inform nursing and pharmacological interventions, including fluids and electrolytes, shock, and perioperative care; focus on selected disorders and/or diseases, including neurological, immune, musculoskeletal, cardiovascular, respiratory, renal, and endocrine disorders. Prerequisites: NURS:3518 and NURS:3138 and NURS:3128 and NURS:3160. Corequisites: NURS:3460 and NURS:3620 and NURS:3625.

NURS:3451 Basic Clinical Concepts for Nursing 1 s.h.

Caring for the adult patient with diverse disease processes through experiential learning; emphasis on complex physical and psychosocial assessment, clinical reasoning, team building, interprofessional education and communication, and application of the nursing process to provide safe and effective nursing care; second of a three-part laboratory and simulation series. Prerequisites: NURS:3128 and NURS:3138 and NURS:3151 and NURS:3160 and NURS:3518. Corequisites: NURS:3438 and NURS:3460 and NURS:3615 and NURS:3620 and NURS:3625.

NURS:3460 Professional Role II: Research 3 s.h.

Introduction to concepts and process of research in nursing; primary focus on understanding research and its foundation for nursing practice. Requirements: basic statistics. Recommendations: upper-level statistics.

NURS:3518 Pathology 3 s.h.

Introduction to abnormal functioning of cells, tissues, organs, and systems over the human lifespan; focus on hematological, immune, neurological, musculoskeletal, cardiovascular, respiratory, renal, gastrointestinal, endocrine, and reproductive system; alterations in metabolic processes and alterations in homeostatic mechanisms impacting the internal milieu; emphasis on critical thinking. Prerequisites: (CHEM:1080 and ACB:3110 and BIOL:1141 and MICR:3164 and CHEM:1070 and (HHP:1300 or HHP:3500)) or NURS:3734. Requirements: admission to the College of Nursing.

NURS:3595 Nonprofit Organizational Effectiveness I 3 s.h.

Operational and financial aspects of nonprofit management; mission and governance of organization; strategic planning for effective management, including finance, budget, income generation, fund-raising. Same as ENTR:3595, MGMT:3500, MUSM:3500, RELS:3700, SSW:3500.

NURS:3600 Nonprofit Organizational Effectiveness II 3 s.h.

Qualities for leadership of nonprofit organizations, including relationships with staff and volunteers; relationship of nonprofit and outside world; marketing, public relations, advocacy strategies for nonprofits. Same as MGMT:3600, RELS:3701, SSW:3600.

NURS:3615 Adult Medical/Surgical Nursing Practicum 3 s.h.

In-depth clinical experience; application of basic and complex concepts of nursing care for adults of all ages in a variety of settings, focus on older adults; development and application of critical thinking skills necessary to understand disease process, associated signs and symptoms; emphasis on interventions and outcomes. Prerequisites: NURS:3128 and NURS:3138 and NURS:3160 and NURS:3518. Corequisites: NURS:3438 and NURS:3460 and NURS:3620 and NURS:3625.

NURS:3620 Gerontological Nursing 3 s.h.

Nurse's role in promoting, maintaining, and restoring the health of aging adults; internal and external influences on older adults, application of nursing science to the care of older adults in diverse settings. Prerequisites: NURS:3128 and NURS:3138 and NURS:3518 and NURS:3160. Corequisites: NURS:3438 and NURS:3460 and NURS:3625.

NURS:3625 Gerontological Nursing Practicum 2 s.h.

In-depth clinical experience designed to apply basic and complex concepts of nursing care for adults of all ages in a variety of settings; focus on older adults; development and application of critical thinking skills necessary to understand disease process and the associated signs and symptoms, interventions, and outcomes. Prerequisites: NURS:3160 and NURS:3138 and NURS:3128 and NURS:3518. Corequisites: NURS:3438 and NURS:3460 and NURS:3615 and NURS:3620.

NURS:3631 Nursing Care of Children and Families 2 s.h.

Promoting, maintaining, and restoring the health of parents, infants, children, and adolescents in childbearing families; examination of nursing care of newborns, well children, and children with acute and chronic illness within the context of family and community. Prerequisites: NURS:3438 and NURS:3451 and NURS:3460 and NURS:3615 and NURS:3620 and NURS:3625. Corequisites: NURS:3632 and NURS:3635 and NURS:3640 and NURS:3645 and NURS:3651 and NURS:3660.

NURS:3632 Nursing Care of Childbearing Families 2 s.h.

Promoting, maintaining, and restoring health for women of reproductive age, childbearing families, and newborns; examination of nursing care for family planning, preconception health, prenatal care, childbirth, newborn care, and maternal and neonatal complications within the context of family and community. Prerequisites: NURS:3438 and NURS:3451 and NURS:3460 and NURS:3615 and NURS:3620 and NURS:3625. Corequisites: NURS:3631 and NURS:3635 and NURS:3640 and NURS:3645 and NURS:3651 and NURS:3660.

NURS:3635 Parent Child Nursing Practicum 2 s.h.

Application of nursing knowledge to promote, maintain, and restore health; vulnerable populations of interest including persons with mental health disorders, infants, children, adolescents, their families; processes of childbearing and childrearing within context of families. Prerequisites: NURS:3625 and NURS:3620 and NURS:3438 and NURS:3615 and NURS:3460. Corequisites: NURS:3640 and NURS:3645 and NURS:3660. Requirements: successful completion of two semesters in B.S.N. curriculum.

NURS:3640 Psychiatric/Mental Health Nursing 3 s.h.

General principles and practices of psychiatric/mental health nursing; psychiatric disorders, populations at risk, continuity of care, and problems in daily living; unique needs of diverse populations. Prerequisites: NURS:3438 and NURS:3620 and NURS:3615 and NURS:3625 and NURS:3460. Corequisites: NURS:3645 and NURS:3660.

NURS:3645 Mental Health Nursing Practicum 2 s.h.

Application of nursing knowledge to promote, maintain, and restore health; vulnerable populations of interest including persons with mental health disorders, infants, children, adolescents, their families; processes of childbearing and childrearing within context of families. Prerequisites: NURS:3625 and NURS:3438 and NURS:3620 and NURS:3615 and NURS:3460. Corequisites: NURS:3635 and NURS:3640 and NURS:3660. Requirements: successful completion of two semesters in B.S.N. curriculum.

NURS:3650 Community and Public Health Nursing 3 s.h.

Role of nursing in the relationship between community conditions and public health; emphasis on principles of public health combined with nursing knowledge and skills to address health needs of individuals, families, communities, and populations. Prerequisites: (NURS:3660 and NURS:3640 and NURS:3635 and NURS:3645) or NURS:3460. Corequisites: NURS:3655. Requirements: for pre-licensure B.S.N. student—successful completion of NURS:3620, NURS:3625, NURS:3640, and NURS:3645, and concurrent enrollment in NURS:4155 and NURS:4160; for post-licensure RN-B.S.N. student—successful completion of NURS:4160, 6 s.h. of required nursing elective courses, and completion of general education electives.

NURS:3651 Advanced Clinical Concepts for Nursing 1 s.h.

Advanced and specialty nursing skills; focus on pediatric and obstetric simulation as well as advanced, medical-surgical skills; opportunity for ongoing development of essential clinical skills including team communication, clinical reasoning, patient safety, evidence-based practice, incorporation of the nursing process, patient education, and nursing care across the lifespan; third of a three-part laboratory and simulation series. Prerequisites: NURS:3438 and NURS:3451 and NURS:3460 and NURS:3615 and NURS:3620 and NURS:3625. Corequisites: NURS:3631 and NURS:3632 and NURS:3635 and NURS:3640 and NURS:3645 and NURS:3660.

NURS:3655 Community and Public Health Nursing Practicum 2 s.h.

Learning opportunities to apply principles of public health with nursing knowledge and skills to address health promotion, disease and injury prevention, and nursing management of infectious disease and chronic health conditions; nursing activities focus on improvement of health outcomes at individual, family, community, and global levels within the context of population-focused practice. Prerequisites: (NURS:3645 and NURS:3635 and NURS:3640 and NURS:3660) or NURS:3460. Corequisites: NURS:3650. Requirements: for pre-licensure B.S.N. student—successful completion of NURS:3625 and NURS:3645, and concurrent enrollment in NURS:4155 and NURS:4160; for post-licensure RN-B.S.N. student—successful completion of NURS:3110 and NURS:3160 and NURS:3460 and NURS:3518 and NURS:3660 and NURS:3734 and NURS:4160, 6 s.h. of required nursing electives, completion of general education electives, RN licensure in state of practicum, and concurrent enrollment in NURS:3734, if not taken as a prerequisite.

NURS:3660 Professional Role III: Improving Health Systems 2-3 s.h.

Legal and regulatory processes that impact health care, how disparities influence health care, and evidence-based approaches for improving quality of care; strategies for working effectively in intra and interdisciplinary teams; integration of a culture of safety. Prerequisites: (NURS:3615 and NURS:3625 and NURS:3620 and NURS:3460 and NURS:3438) or (NURS:3160 and NURS:3460).

NURS:3712 Human Sexuality, Diversity, and Society 1-3 s.h.

Introduction to human sexuality from a biopsychosocial, sex-positive perspective; sexuality as a normal and essential component of human existence and expression throughout the life span; influence of gender, class, religion, race, ethnicity, sexual orientation, ability status, age, and culture on sexuality interwoven and highlighted; diversity of perspectives and experiences shared through active participation and respectful dialogue. Same as SSW:3712.

NURS:3731 Healthier Living for Well-Being 1 s.h.

Strategies to reduce stress and promote healthy resilience; overall well-being and academic performance support; evidence-based, skills-building assignments focus on cognitive behavioral and coping techniques. Requirements: nursing interest or admission to the College of Nursing.

NURS:3732 Global Health Nursing 3 s.h.

Complexity of health and nursing in a global context; overview of biological, social, epigenetic, and environmental contributors to health and diseases in populations around the world and nursing's role in improving health; includes case studies of various global organizational and educational structures and systems relative to population health, selected infectious diseases, nutritional deficiencies, and health effects of environmental change. Same as GHS:3732.

NURS:3734 Introduction to Human Genetics 3 s.h.

Introduction to organization of the human genome and basic principles of inheritance in humans; cells and development, chromosome structure and function, gene structure and function, genes in pedigrees and populations, implications of genetic variation on health.

NURS:3736 Legal Issues for Health Care Providers 3 s.h.

Legal issues faced by health care providers, counselors, and social services providers; administrative and regulatory requirements, civil lawsuits, issues that affect students as providers, advocates, and individuals.

- NURS:3737 Care of the Patient in Pain** 3 s.h.
 Foundational and advanced content in the area of pain management across populations, the lifespan, and settings of care; content and learning focus on core competencies for pain management recommended of all health care professionals; emphasis on development of interdisciplinary team, including nurses, as an advocate for quality and safe pain management; content areas include type of pain, pain therapies, assessment and measurement, treatment, self-management, evaluation/monitoring, disparities, and bioethics; no clinical component. Requirements: upper-division standing. Recommendations: pharmacology and pathophysiology.
- NURS:3739 Women and Their Bodies in Health and Illness** 3 s.h.
 Basic facts about structure and functioning of female body; particular attention to adjustments the body makes during normal physiological events (menstruation, sexuality, reproduction, menopause) and during illness processes; women's mental and physical health issues in relation to women's lives and roles in society; relationship of women as consumers, practitioners, and activists to health system; achievements and limitations of women's health movements; anti-oppression, intersectionalities, and cross-cultural perspectives. Same as GWSS:3177.
- NURS:3740 End-of-Life Care for Adults and Families** 3 s.h.
 End-of-life issues in care of adults, older adults, and their families. Same as ASP:3740, MED:3740.
- NURS:3741 Nurse Residency Role Transition Seminar** 3 s.h.
 New graduate nurses entering practice are enrolled in transition-to-practice programs focused on integration of knowledge, skills, and professional behaviors necessary to provide safe, quality care; associate degree nurses evaluate how they achieved mastery of core knowledge and competencies and discuss Commission on Collegiate Nursing Education (CCNE) Entry-to-Practice Competencies; students examine transition-to-practice experience and document ways in which knowledge, skills, and attitudes are impacted and improved; engage in group discussion and reflective writing assignments to evaluate professional growth during transition-to-practice. Requirements: associate degree nurse graduate currently enrolled in or recent completion of a nurse residency program accredited by Commission on Collegiate Nursing Education (CCNE) or UI online nurse residency program (nurse residency program completed within two years or current enrollment with completion in a minimum of five months).
- NURS:3742 Selected Topics in Nursing** 1-2 s.h.
 In-depth study of topics in professional nursing practice and health care; workshop format.
- NURS:3743 Perioperative Nursing** 3 s.h.
 Patient assessments, nursing interventions, and patient responses for individuals undergoing surgical procedures; emphasis on phases of perioperative care including preoperative assessment, patient education, intraoperative care, and post-anesthesia care. Prerequisites: NURS:3615. Requirements: prerequisite course or RN licensure.
- NURS:3744 Critical Care Nursing** 3 s.h.
 Provides nursing students with the knowledge required to safely and competently care for critically ill or injured patients; builds upon foundational courses in medical/surgical acute care. Prerequisites: NURS:3615. Requirements: prerequisite course or RN licensure.
- NURS:4096 Distance Education: Honors Independent Study** 3 s.h.
 Building on honors seminar, students implement the project they designed in the seminar with guidance from the student's contracted honors faculty mentor; honors project is expected to apply current professional evidence and result in a rigorous scholarly product; the specific type of product is negotiated with honors faculty mentor; while a minimum of 90 hours is required for honors project, honors faculty mentor and student work together to determine the specific schedule commitments. Prerequisites: NURS:4098.
- NURS:4098 Honors Seminar** 1 s.h.
 Crafting a meaningful honors project; structured steps for development of a project idea, measurable learning objectives, GANTT chart timeline, beginning literature review related to the independent study subject; identification/completion of organizational requirements such as approval processes, access to electronic systems, and training.
- NURS:4099 Honors Independent Study** 3 s.h.
 Building on honors seminar, students implement the project they designed in the seminar with guidance from the student's contracted honors faculty mentor; honors project is expected to apply current professional evidence and result in a rigorous scholarly product; specific type of product negotiated with honors faculty mentor; while a minimum of 90 hours is required for honors project, honors faculty mentor and student work together to determine specific schedule commitments. Prerequisites: NURS:4098.
- NURS:4155 Senior Nursing Internship** 5 s.h.
 Immersion capstone experience to engage in practice under direct supervision of a professional registered nurse mentor; design, provide, coordinate, and evaluate care; work with teams to deliver evidence-based care; improve quality, patient safety, and outcomes. Prerequisites: NURS:3640 and NURS:3660 and NURS:3635 and NURS:3645. Corequisites: NURS:3650 and NURS:3655 and NURS:4160.
- NURS:4160 Professional Role IV: Leadership and Professional Engagement** 3,5 s.h.
 Concepts of leadership, followership, management, informatics, and professional engagement; quality improvement strategies and skills; professional development, career trajectory, and role transitions. Prerequisites: (NURS:3660 and NURS:3645 and NURS:3635 and NURS:3640) or (NURS:3460 and NURS:3160 and NURS:3660). Corequisites: NURS:3660, if not taken as a prerequisite.
- NURS:4170 Baccalaureate Seminar** 1 s.h.
 Examination of didactic and clinical learning experiences; documentation of changes in knowledge, skills, and attitudes to demonstrate achievement of relevant competencies; group discussion and reflective writing assignments to evaluate professional growth that has occurred during the B.S.N. program.
- NURS:5002 Leadership and Management Essentials** 3 s.h.
 Roles and strategies for leading and managing others in health care environments to influence health care delivery and provide a healthy, innovative working environment; focus on selected leadership and organizational concepts essential to leaders in health care.

- NURS:5007 Applied Epidemiology** 3 s.h.
Introduction to basic principles and methods of epidemiology and demonstration of applicability in field of nursing and nursing research; topics include historical perspectives of epidemiology, epidemiological models of health and disease, measures of disease occurrence and association, disease screening, causal inference, study design and application of epidemiological approaches to clinical practice, program planning and evaluation.
- NURS:5009 Evaluating Evidence for Practice** 3 s.h.
Opportunity for clinicians to develop proficiency in use of research- and evidence-based practice; essentials of the research process, qualitative and quantitative research, components of evidence-based practice; acquisition of knowledge and skills necessary for research (knowledge) utilization initiatives and application of evidence-based practice principles in clinical settings; identification of appropriate research questions, synthesis of knowledge base for evidence-based practice, revision of clinical practice guidelines, and evaluation of research utilization and evidence-based practice initiatives.
- NURS:5010 Clinical Data Management and Evaluation** 3 s.h.
Clinical data management essential for evaluating evidence-based practice/performance improvement projects; a high caliber data management plan will provide key stakeholders with information necessary to make decisions and includes components of identified processes and outcomes linked to variables and data sources, adequate statistical power, data cleaning and manipulation techniques, statistical methods, and a meaningful presentation of variables that addresses the concerns and questions of key stakeholders; knowledge and skills necessary to develop and execute data management plan for final project. Prerequisites: NURS:5009. Requirements: master's or doctoral standing.
- NURS:5015 Health Systems, Finance, and Economics** 3 s.h.
Global, economic, organizational, legal, political, and technological contexts in advanced nursing practice; knowledge and skills necessary for understanding the evolution of health services organizations, financing of health care, and relationships among socioeconomic systems influencing health care and nursing practice; impact of macrosystems on distribution, acquisition, and use of financial and economic principles in delivery of health care services. Prerequisites: NURS:5002.
- NURS:5016 Health Care Infrastructure and Informatics** 3 s.h.
Health care infrastructure with a focus on the United States; role of information and technology in its development and implementation; role of data sets, information technology, and emerging technologies in supporting providers in managing patient care and population health of vulnerable groups. Prerequisites: NURS:5002 and NURS:5015.
- NURS:5017 Quality and Safety** 3 s.h.
Foundation for understanding concepts of safety and quality across health care settings; focus on providing a safe environment, elevating staff performance and clinical outcomes related to safety and quality, and methods for continuous improvement.
- NURS:5018 Clinical Education in the Care Environment** 3 s.h.
Preparation to assume role of educator with individuals, groups, and communities, including staff and students; teaching/learning process for providing client education; knowledge and skills needed to effectively fill role of preceptor/mentor.
- NURS:5019 Role Development: Educator in a Practice Discipline** 3 s.h.
Becoming an educator in a practice discipline; unique knowledge, skills, approaches to didactic and clinical teaching; overview of curriculum development process that affects revision/development; faculty role in curriculum development and evaluation; knowledge and skills to create a learner-centered environment for professional students; key facilitation and evaluation strategies; application of concepts during field experience working directly with experienced faculty.
- NURS:5020 Application of Educator Role Competencies** 1-3 s.h.
Individually designed activities to strengthen performance as an educator in a practice discipline; meet with experienced instructor to develop specific objectives and related activities to be completed during a 45-hour field experience. Prerequisites: NURS:5019.
- NURS:5021 Physiology, Pathophysiology, and Pharmacology I for the Clinical Nurse Leader** 3 s.h.
Basic scientific concepts required for B.S.N. and clinical nursing experience; matches physiology and pathophysiology with pharmacological treatments as combined core elements; focus on regulation of cellular, organ, and system functions; regulation of internal milieu; functional interrelationships among body systems; cellular and body-wide defense mechanisms; synthesis of information related to pathophysiological phenomena; pharmacokinetic and pharmacodynamics principles essential for general practice; specific drug classes used in management of clinical conditions. Two semesters.
- NURS:5022 Physiology, Pathophysiology, and Pharmacology II for the Clinical Nurse Leader** 3 s.h.
Basic scientific concepts required for B.S.N. and clinical nursing experience; matches physiology and pathophysiology with pharmacological treatments as combined core elements; focus on regulation of cellular, organ, and system functions; regulation of internal milieu; functional interrelationships among body systems; cellular and body-wide defense mechanisms; synthesis of information related to pathophysiological phenomena; pharmacokinetic and pharmacodynamics principles essential for general practice; specific drug classes used in management of clinical conditions. Two semesters. Prerequisites: NURS:5021.
- NURS:5023 Pathophysiology for Advanced Clinical Practice** 4 s.h.
In-depth study of pathophysiologic processes across the lifespan; emphasis on dysregulation of cellular, organ, and system functions; clinical manifestations of common disease states; resultant physiological responses to internal milieu; interrelationships among body system; cellular and body-wide defense mechanisms; synthesis of evidence-based information from a variety of sources related to selected pathophysiological phenomena. Requirements: graduate-level physiology course.

NURS:5031 Health Promotion and Assessment for Advanced Clinical Practice 3-4 s.h.

Emphasis on health promotion and advanced health assessment; didactic and clinical laboratory instruction allows students to develop and demonstrate mastery of advanced knowledge and skills in health assessment; content related to promotion of health and prevention of disease; focus on application of content with individuals within the student's respective population-based scope of practice. Requirements: admission to post-B.S.N. D.N.P. program.

NURS:5032 Mental Disorders in Advanced Practice 3 s.h.

Foundation for advanced practice nurse to provide care for common mental health disorders; presentation of neurophysiological, genomic, environmental/social, and developmental theories to understand etiology and presentation of common mental health conditions; psychopharmacological and nonpharmacological principles and modalities for treatment of common mental health problems.

NURS:5033 Pharmacotherapeutics for Advanced Practice Nursing 3 s.h.

Examination of pharmacotherapeutic principles essential for advanced clinical practice nursing and prescribing; specific drug classes frequently used in management of clinical conditions experienced by various patient populations; legal considerations related to prescriptive authority and prescribing patterns. Prerequisites: NURS:5023.

NURS:5035 Graduate Pharmacology Specialty 3 s.h.

Principles of pharmacology learned in NURS:5033; principles and practices necessary for safe prescribing and medication management of a specialty population (e.g., pediatrics, geriatrics, acute care, mental health). Prerequisites: NURS:5033.

NURS:5036 Psychopharmacology for Advanced Clinical Practice 3 s.h.

Scientific knowledge of psychopharmacology and its application to treatment of clients with psychiatric disorders across the lifespan; advanced concepts in neuroscience, neurobiology of mental disorders, pharmacokinetics and pharmacodynamics of psychotherapeutic medications in the management of targeted symptoms of psychiatric disorders in clients across the lifespan. Prerequisites: NURS:5023 and NURS:5033.

NURS:5037 Health Promotion and Assessment for Clinical Nurse Leaders 3-4 s.h.

Emphasis on health promotion and advanced health assessment; didactic and clinical laboratory instruction allows students to develop and demonstrate mastery of advanced knowledge and skills in health assessment; content related to promotion of health and prevention of disease; focus on application of course content with individuals across the lifespan. Requirements: admission to M.S.N.-CNL program.

NURS:5038 Advanced Diagnostic and Therapeutic Procedures for Acute Care 1 s.h.

Introduction to use of advanced diagnostic and therapeutic techniques commonly encountered in acute and critical care; students are provided opportunities to interpret and incorporate technologically derived data; discussion of practices to protect patients, such as informed consent, risk benefit analysis, infection control, and pain management; laboratory experiences allow students to practice techniques used to perform invasive procedures. Prerequisites: NURS:5023 and NURS:5031 and NURS:5033. Requirements: graduate-level physiology course.

NURS:5039 Advanced Diagnostic and Therapeutic Procedures for Primary Care 1 s.h.

Introduction to use of advanced diagnostic and therapeutic techniques commonly encountered in primary care; selected laboratory experiences designed to enhance familiarity with use of technologies and interpretation of technologically derived data; discussion of practices used to protect patients (e.g., informed consent, risk benefit analysis, infection control, pain management). Prerequisites: NURS:5023 and NURS:5031 and NURS:5033. Requirements: graduate-level physiology course.

NURS:5040 Genetics/Genomics for Advanced Nursing Practice 2 s.h.

Essential content for understanding the role genetics/genomics plays in health and disease; focus on the core competencies of American Nurses Association (ANA), which provides a framework for advanced nursing practice preparation to incorporate genetics/genomics knowledge for development of prevention, diagnosis, and treatment options in order to optimize health outcomes relevant to clinical role and specialty. Requirements: master's or doctoral standing.

NURS:5041 Psychotherapeutics for Advanced Practice Nursing Across the Lifespan I 2 s.h.

Scientific knowledge of psychotherapies and its application to treatment of clients with psychiatric disorders across the lifespan; focus on advanced concepts of effective communication and utilizing evidenced-based psychotherapy theories in the management of targeted symptoms of psychiatric disorders in clients across the lifespan.

NURS:5042 Psychotherapeutics for Advanced Practice Nursing Across the Lifespan II 1 s.h.

Scientific knowledge of psychotherapies and its application to treatment of clients with psychiatric disorders across the lifespan from NURS:5041; students identify two forms of evidenced-based psychotherapy theories and prepare a pathway to certification in each form of psychotherapy. Prerequisites: NURS:5041.

NURS:5210 Foundations of Professional Nursing 1 s.h.

Introduction to professional nursing practice and exploration of nursing discipline, history, and interprofessional partnerships; examination of nursing theories and professional identity of the nurse. Requirements: admission to M.S.N. Entry into Practice program.

NURS:5215 Medical Surgical Care of Chronically Ill Adults 3 s.h.

Chronic disease management and reinforcement of clinical judgment, prioritization, psychomotor skills, and professional behavior with diverse patient populations in a variety of health care settings; application of evidence-based nursing practice and safe person-centered practice in the nursing process to adult patients with chronic health care needs; clinical focus includes activities of daily living, positioning, mobility, nutrition, therapeutic communication, asepsis, medication administration, elimination management, interprofessional collaboration, and transition of care. Prerequisites: NURS:3645. Corequisites: NURS:3138.

NURS:5220 Medical Surgical Care of Acutely Ill Adults **3 s.h.**

Acute disease management and reinforcement of clinical judgment, prioritization, psychomotor skills, and professional behavior with diverse patient populations in a variety of health care settings; application of evidence-based nursing practice and safe person-centered practice in the nursing process to adult patients with acute health care needs; emphasis on building leadership skills, independent decision making, interprofessional collaboration, person-centered education, and prioritization with adult patients who have acute health care needs. Prerequisites: NURS:5215. Corequisites: NURS:3438.

NURS:5225 Community Health Across the Lifespan Practicum **4 s.h.**

Integration of specialty populations knowledge in providing care to individuals and communities of diverse backgrounds; experiences take place in community, pediatric/mother/baby/family, and geriatric settings; students use nursing process to deliver person-centered care within spheres of disease prevention/promotion of health and well-being, and hospice/palliative and supportive care in a variety of population settings; focus on improvement of health outcomes at individual, family, and community level within context of population-focused practice. Prerequisites: NURS:5220. Corequisites: NURS:3620 and NURS:3631 and NURS:3632.

NURS:5401 The Care of the Frail Elderly **3 s.h.**

Clinical management of the elderly; emphasis on economic considerations, principles of gerontological care, common syndromes, ethical issues; clinical application experience in a long-term care setting. Prerequisites: NURS:5035. Corequisites: NURS:6200 and NURS:6701. Same as ASP:5401.

NURS:5636 Clinical Nurse Leader Seminar **2-3 s.h.**

Evolution of clinical nurse leader (CNL) role, eight core role functions, and the process of integration of CNL role into health care system. Requirements: admission to M.S.N.-CNL program.

NURS:5666 Leadership in the Microsystem **3 s.h.**

Assessment of the microsystem of practice, clinical nurse leader role as leader embedded in a microsystem, and identification of opportunities to enhance care delivery in the microsystem.

NURS:5696 Clinical Nurse Leader Capstone Clinical Immersion **6 s.h.**

Intensive immersion in role and practice expectations of the clinical nurse leader (CNL); experienced leaders within the microsystem, who are experts in the provision of clinical services at the point of care/services, serve as mentors. Requirements: enrollment in final semester of M.S.N.-CNL program.

NURS:5697 Specialty Practice in Nursing Systems **4 s.h.**

Practice in nursing and health care leadership; interventions that influence health care outcomes for individuals, populations, or systems; final capstone concepts and experiences prepare students to deliver and manage safe, effective, and quality care to diverse populations in a variety of settings and roles, and master nursing and health care leadership principles; 165-hour guided capstone program implementation and practicum is the centerpiece of learning experience.

NURS:5800 Independent Study **arr.**

Supervised study and/or clinical practice adjusted to needs of master's degree students.

NURS:5801 Master's Project **2-3 s.h.**

Opportunity for in-depth analysis and synthesis of a chosen topic that contributes to some aspect of nursing practice.

NURS:5802 Master's Portfolio **0 s.h.**

Opportunity for clear and cohesive synthesis of clinical or professional experiences and competencies, including those gained in graduate study, that portray students' clinical or professional strengths and career goals.

NURS:5803 Distance Education: Master's Independent Study **arr.**

Supervised study and/or clinical practice adjusted to needs of master's degree students.

NURS:5804 Distance Education: Master's Portfolio **0 s.h.**

Clear and cohesive synthesis of clinical or professional experiences and competencies, including those gained in graduate study; students' clinical or professional strengths and career goals.

NURS:5806 Distance Education: Master's Project **2-3 s.h.**

In-depth analysis and synthesis of a chosen topic that contributes to some aspect of nursing practice.

NURS:6000 Human Anatomy for Advanced Practice **4 s.h.**

Integrated study of interrelationships between anatomic structure and physiological function in health and disease at various points in the lifespan; mechanisms governing and supporting cellular, organ, and system function; internal milieu; relationship of study to clinical assessment of functional integrity of individual organ systems utilizing pertinent objective and subjective data; implications of pathophysiology for anesthesia and implications of anesthesia for pathophysiology; foundation for clinical practicums and courses in nurse anesthesia. Requirements: completion of an undergraduate human anatomy and physiology course and admission to anesthesia nursing program. Same as ACB:6000.

NURS:6004 Scientific Principles for Anesthesia Practice **4 s.h.**

Applicable chemical and physical properties of molecules important in anesthesia; technological principles and equipment used to safely deliver those molecules to patients and monitor patients during anesthesia; topics include basic chemical and physical calculations, properties of substances in solution, measurement, behavior of gases and other fluids, effects of heat transfer, and the specific chemistry of inhaled and intravenous anesthetics and adjuvant drugs. Corequisites: NURS:6006. Same as ANES:6004.

NURS:6006 Pharmacology of Anesthesia Practice **3 s.h.**

Builds on content from foundational graduate pharmacology course; focus on safe prescribing, administration, and management of medications used to provide general, regional, or local anesthesia and analgesia for all patient populations across lifespan undergoing varied surgical, obstetrical, or other procedures in any health care setting. Prerequisites: PCOL:6204 with a minimum grade of B-. Requirements: enrollment in anesthesia nursing program. Same as ANES:6006.

NURS:6007 Basic Principles of Anesthesia Practice**5 s.h.**

Overview and integration of anesthetic agents and techniques; patient assessment, preoperative airway evaluation, anesthetic planning, principles of fluid management, and arterial blood gas interpretation; principles of general and regional anesthesia and techniques as they pertain to each surgical specialty; Occupational, Safety and Health Administration (OSHA), The Joint Commission (TJC), and institutional regulations and requirements pertinent to anesthesia practice. Prerequisites: NURS:6004 with a minimum grade of B- and NURS:6006 with a minimum grade of B-. Same as ANES:6007.

NURS:6010 Advanced Principles of Anesthesia Practice I**4 s.h.**

Special needs and intraoperative anesthetic management of complex patient populations and those with advanced pathologic states; anesthetic techniques for specific surgical subspecialties including pediatrics, obstetrics, neurosurgery, cardiac, vascular, thoracic, transplant, trauma, EENT, dental, and aesthetic or reconstructive procedures; pertinent pathophysiology and anesthetic monitoring and management techniques; clinical case conferences provide opportunities to discuss perianesthetic complications and challenges. Prerequisites: NURS:6007 with a minimum grade of B- or ANES:6007 with a minimum grade of B-. Same as ANES:6010.

NURS:6012 Advanced Principles of Anesthesia Practice II**1 s.h.**

Acute and chronic pain treatment modalities for all patients presenting for a variety of medical or surgical procedures across the lifespan. Prerequisites: NURS:6007 with a minimum grade of B- or ANES:6007 with a minimum grade of B-. Same as ANES:6012.

NURS:6050 Introductory Clinical Anesthesia**2 s.h.**

Initial mentorship in clinical anesthesia; development of basic clinical skills needed for a career as nurse anesthetist; application and integration of theoretical knowledge in clinical setting. Prerequisites: NURS:6004 and NURS:6006. Corequisites: NURS:6007. Same as ANES:6050.

NURS:6051 Clinical Anesthesia I**2 s.h.**

Mentored clinical anesthesia experience; advancement and enhancement of clinical skills in providing anesthesia for various surgical subspecialties including general, orthopedic, pediatric, geriatric, gynecologic, urologic, dental, EENT, ambulatory surgery, and invasive diagnostic procedures. Prerequisites: NURS:6050 or ANES:6050. Corequisites: NURS:6010. Same as ANES:6051.

NURS:6052 Clinical Anesthesia II**2 s.h.**

Additional mentored clinical anesthesia experience; advancement and enhancement of clinical skills in providing anesthesia for various surgical subspecialties including general, orthopedic, pediatric, geriatric, gynecologic, urologic, dental, EENT, ambulatory surgery, and invasive diagnostic procedures. Prerequisites: NURS:6051 or ANES:6051. Same as ANES:6052.

NURS:6053 Advanced Clinical Anesthesia**2 s.h.**

Mentored clinical anesthesia at selected sites; development of advanced clinical skills and critical thinking by providing anesthesia for all surgical specialties and invasive diagnostic procedures in all anesthetizing locations; providing anesthesia for all patients in all settings, including on call emergency surgeries. Prerequisites: NURS:6052. Same as ANES:6053.

NURS:6054 Obstetrical Anesthesia**2 s.h.**

Experience delivering analgesia and anesthesia for parturients during labor and delivery process. Prerequisites: NURS:6052. Same as ANES:6054.

NURS:6055 Rural Anesthesia**2 s.h.**

Opportunity to develop experience providing anesthesia and associated health care services at UI-affiliated clinical sites in rural settings. Prerequisites: NURS:6052. Same as ANES:6055.

NURS:6100 Primary Care: Infants, Children, and Adolescents I**3 s.h.**

Enhancement of clinical knowledge and skills for infant, child, adolescent care. Prerequisites: NURS:5035. Corequisites: NURS:6701.

NURS:6101 Primary Care: Infants, Children, and Adolescents II**3 s.h.**

Enhancement of clinical knowledge and skills for infant, child, adolescent care; development and refinement of knowledge and skills in primary health care delivery. Prerequisites: NURS:6100. Corequisites: NURS:6702. Same as PEDS:6101.

NURS:6104 Essentials of Pediatric Primary Care: Infants, Children, and Adolescents**3 s.h.**

Builds on prior graduate coursework to enhance foundational knowledge and skills in infant, child, and adolescent population; application of essential concepts of pediatric primary care to identify, diagnose, and manage health issues; emphasis on concepts (e.g., growth and development, anticipatory guidance, common pediatric health concerns) managed in ambulatory health care systems. Prerequisites: NURS:5031. Corequisites: NURS:5035.

NURS:6200 Primary Care: Adults and Older Individuals I**3 s.h.**

Pathophysiologic alterations and clinical management of associated health care problems in adults, the elderly. Prerequisites: NURS:5035. Corequisites: NURS:6701.

NURS:6201 Primary Care: Adults and Older Individuals II**3 s.h.**

Continuation of NURS:6200. Prerequisites: NURS:6200. Corequisites: NURS:6702.

NURS:6400 Pediatric Acute Care I**3 s.h.**

First of two courses exploring management of complex acute, critical, and chronically ill patients with urgent and emergent conditions; focus on alterations in pathophysiology, advanced assessment, diagnosis, and collaborative management of infants, children and adolescents with selected episodic/chronic health problems in acute/critical care. Prerequisites: NURS:5035. Corequisites: NURS:6701.

NURS:6401 Pediatric Acute Care II**3 s.h.**

Second of two courses exploring management of complex acute, critical, and chronically ill patients with urgent and emergent conditions; focus on alterations in pathophysiology, advanced assessment, diagnosis, and collaborative management of infants, children and adolescents with selected episodic/chronic health problems in acute/critical care. Prerequisites: NURS:6400. Corequisites: NURS:6702.

NURS:6410 Adult-Gerontology Acute Care I**3 s.h.**

First of two courses exploring management of complex acute, critical, and chronically ill patients with urgent and emergent conditions; focus on alterations in pathophysiology, advanced assessment, diagnosis, and collaborative management of adults and older adults with selected episodic/chronic health problems in acute/critical care. Prerequisites: NURS:5035. Corequisites: NURS:6701.

- NURS:6411 Adult-Gerontology Acute Care II** 3 s.h.
Second of two courses building on prior acute care content and focusing on critical, complex, and end of life care; emphasis on evidence-based strategies to stabilize patient's condition, assessment of risk for and prevention of complications, restoration and maintenance of optimal health and functioning, and/or provision of palliative care in context of patient's physical and psychosocial environment. Prerequisites: NURS:6410. Corequisites: NURS:6702.
- NURS:6500 Psychiatric/Mental Health Nursing for Advanced Practice Didactic I** 3 s.h.
Introduction to psychological principles and theories as they relate to mental health across the lifespan, intersections between physical and mental health, and role of advanced practice nurse in psychiatric/mental health care; examination of psychological theory within a life span developmental framework from infancy to older adult; introduction to role of cultural diversity in mental health; emphasis on assessment, diagnosis, and management of mental disorders that are common in adults. Prerequisites: NURS:5032 and NURS:5036. Corequisites: NURS:6701.
- NURS:6501 Psychiatric/Mental Health Nursing for Advanced Practice Didactic II** 3 s.h.
Builds on prior lifespan content with specific focus on selected populations, families, and groups; students further define and expand their practice of psychiatric/mental health nursing based on the integration of theory, standardized languages, and research; exploration of a variety of approaches and issues of service delivery; emphasis on methods and skills for completing a comprehensive mental health assessment and managing common psychiatric illness in childhood/adolescence and late life. Prerequisites: NURS:6500. Corequisites: NURS:6702.
- NURS:6550 Advanced Leadership and Management** 3-4 s.h.
Leadership and management concepts and theories; application to roles unique to executive nurse leader in health care organizations in institutional and community settings; emphasis on advanced leadership roles for facilitating, integrating, and coordinating complex structures, processes, and outcomes in health care systems.
- NURS:6551 Financial Management** 3-4 s.h.
Preparation for nurse leaders and practitioners to use techniques for financial analysis and decision making for patient care programs across the health care continuum; focus on efficient and effective management of resources for delivery of quality health care services.
- NURS:6552 Executive Management in the Organization** 3-4 s.h.
Manage operations of patient care services across health care continuum within the framework of an established health care organization; focus on efficient and effective management of the structure, governance, patient care delivery system of care, and outcomes of care.
- NURS:6553 Seminar on Innovations** 4 s.h.
Strategizing about taking meaningful action, disrupting stable processes, diffusing innovation, and sustaining change; emerging innovations in nursing and health care systems that impact the functions and responsibilities of nurse leaders.
- NURS:6554 Seminar on Healthy Work Environments** 3 s.h.
Application of leadership and management knowledge specific to creating and sustaining healthy work environments in health care; current and emerging issues focused on health care work environments.
- NURS:6555 Care Coordination Across Professional and Organizational Boundaries** 3-4 s.h.
Structures, processes, concepts, tools and experience that leads to effective coordination of patient care, case and population health management as well as information, management and financial systems supporting care coordination; knowledge and skills for understanding structures, processes, challenges, solutions and innovations in coordinating patient care across professional disciplines and organizational boundaries; impacts of care coordination issues on patient experience, care quality and costs; evaluate interventions for informed and effective care processes in field experience.
- NURS:6556 Marketing and Communications for Health Care Leaders** 3 s.h.
Preparation to strategically plan, establish, and manage a customer-centric marketing strategy; focus on marketing frameworks and theories, and development of a strategic marketing approach with appropriate leadership strategy and positioning to ensure customer value; health care leaders' role in the marketing mix, mobilization of partners, crisis management, and crisis communication planning and response skills.
- NURS:6557 Clinical Practice Management and Leadership for Advanced Practice Providers** 3-4 s.h.
Overview of key aspects for health care provider leadership in clinical practice management and health care enterprise; advanced practice providers are expected to deliver health care services, lead to deliver value, achieve maximum reimbursement, and meet the Institute for Healthcare Improvement's quadruple aims; focus on value management, revenue cycle management, professional leadership, provider leadership, and clinical practice management; students read, discuss, explore, critique, and practice skills related to course topics.
- NURS:6701 Advanced Practice Clinical Practicum I** 3-4 s.h.
Application of advanced physical assessment, pathophysiology, and diagnostic reasoning in a clinical setting appropriate to a specific population. Prerequisites: NURS:5035 or NURS:5036. Corequisites: NURS:6100 or NURS:6400 or NURS:6410 or NURS:6500 or (NURS:5401 and NURS:6200) or (NURS:6100 and NURS:6200).
- NURS:6702 Advanced Practice Clinical Practicum II** 3-4 s.h.
Continuation of NURS:6701; emphasis on diagnostic reasoning and formulation of treatment plans. Prerequisites: NURS:6701. Corequisites: NURS:6101 or NURS:6201 or NURS:6401 or NURS:6411 or NURS:6501 or (NURS:6101 and NURS:6201).
- NURS:6703 Advanced Practice Clinical Practicum III** 3-4 s.h.
Synthesis of role expectations for advanced practice with focus on clinical competencies appropriate to the specialization. Prerequisites: NURS:6702.
- NURS:6704 Practicum in Executive Leadership and Management** 4 s.h.
Immersion experience in application of principles and methods of leadership, management, and evaluation to facilitate health care operations in various settings; student collaboration with a preceptor for mentored in-depth immersion in systems practice.

NURS:6802 Health Policy, Law, and Advocacy 3 s.h.

Issues that shape health care economics and policy development; framework for understanding work of legislators and other policy makers; emphasis on state and national level; health issues in developing countries; health care system, its economics, financing, role of government, not-for-profit entities, and nongovernmental organizations.

NURS:6808 Population Health for Advanced Practice 3 s.h.

Coordination and integration of care delivery for population health and clinical effectiveness across the continuum of care; management of optimized outcomes; emphasis on informatics infrastructure and translation of evidence-based practice to managing care provision and achieving desired outcomes as a result of care provision.

NURS:6809 Advanced Practice Role I: Introduction 2-3 s.h.

Introduction to competencies necessary for advanced nursing practice at the doctoral level; introduction to topics related to knowledge, skills, and abilities that enable doctorate of nursing practice graduates to function as leaders in a health care and nursing practice; topics may include advanced nursing practice role development, communication, collaboration, leadership, ethics, finance, organizational structure, and scope of practice and regulatory issues; first in a two-course sequence. Requirements: doctoral standing.

NURS:6810 Advanced Practice Role II: Integration 2-3 s.h.

Focus on transition to leadership roles that nurses prepared with a Doctor of Nursing Practice degree are expected to fill in practice; students are called upon to demonstrate synthesis of content from previous D.N.P. program courses; discussion of topics pertinent to advanced roles in nursing practice including challenges and opportunities, leadership in health systems and the profession, interprofessional communication and collaboration, conflict management, dissemination of evidence and expertise to improve health care, advocacy and ethical decision making. Prerequisites: NURS:6809.

NURS:6811 Social Determinants of Health and Health System Inequities 3 s.h.

Social determinants of health outcomes and inequities; social and economic forces that shape them using various perspectives and lenses; conceptualization and measurement of variables representing risk and inequities that serve as the organizing framework for course discussions, including individual and social factors; critical analysis of research studies for social bias.

NURS:6826 Doctor of Nursing Practice Project I 2 s.h.

Identification and analysis of a practice, system, or policy problem related to advanced nursing practice; development of an evidence-based proposal to improve outcomes for a group, population, or community; project will reflect student's independent scholarship and includes 370 minimum cumulative hours in the Doctor of Nursing Practice project series; first in a four-course sequence. Requirements: doctoral standing.

NURS:6827 Doctor of Nursing Practice Project II 1-2 s.h.

Students finalize their proposal, obtain project site approvals, complete human subjects review, begin implementation once approved, and prepare for project evaluation; project reflects student's independent scholarship; Doctor of Nursing Practice project series; second in a four-course sequence. Prerequisites: NURS:6826. Requirements: doctoral standing.

NURS:6828 Doctor of Nursing Practice Project III 1-2 s.h.

Students continue implementation, begin to evaluate outcomes of their chosen project, and prepare a rough draft of documents for defense of the project; project will reflect the student's independent scholarship; Doctor of Nursing Practice project series; third in a four-course sequence. Prerequisites: NURS:6827. Requirements: doctoral standing.

NURS:6829 Doctor of Nursing Practice Project IV 1-2 s.h.

Students finish evaluation; prepare and defend their project to faculty, peers, and the community; and give a final report to the project site; project will reflect student's independent scholarship; Doctor of Nursing Practice project series; fourth in a four-course sequence. Prerequisites: NURS:6828. Requirements: doctoral standing.

NURS:6900 Computational Intelligence 3 s.h.

Concepts, models, algorithms, and tools for development of intelligent systems; data mining, expert systems, neural networks for engineering, medical and systems applications. Same as ISE:6350.

NURS:7000 Philosophy and Sociology of Nursing Science 3 s.h.

Introduction to philosophical, historical, and sociological underpinnings of contemporary science and traces history of nursing as scientific and applied discipline; exploration of the nature of knowledge, different ways of knowing, history of science, various philosophical approaches, goals of knowledge generation; analysis of sociology of science to identify the norms, cultural and political influences, differences among scientific disciplines; emphasis on interdisciplinary science; identification of concepts and conceptual definitions, especially as these differ across disciplines. Requirements: Ph.D. standing.

NURS:7001 Qualitative Research 4 s.h.

Provides a foundation in the design of qualitative and mixed methods research and analysis of qualitative and mixed methods data; emphasis on interactions among research purpose, question, aims, and interaction of that triad with sampling, setting, data collection, and analysis; using interpretive description as an exemplar, students design and conduct a small qualitative study relevant to their own interests; College of Nursing faculty present overviews of methods in which they have expertise, such as feminist research, ethnography, and narrative. Prerequisites: NURS:7000 and NURS:7002 and NURS:7006. Requirements: Ph.D. standing.

NURS:7002 Designing Research 3 s.h.

Introduction to designing research studies; identifying a problem and determining overall goal of the study; research goal subsequently leading to purpose, specific aims, and choice of a specific design; focus on issues related to maintaining continuity throughout the design of a study. Prerequisites: NURS:7000 and NURS:7006. Requirements: Ph.D. standing.

NURS:7003 Quantitative Research**4 s.h.**

Refinement of student's understanding of the application of scientific logic; discussion of various quantitative methods; sampling theory and approaches to sample selection, recruitment, and methods to avoid bias; issues related to study validity, intervention development and evaluation, instrument selection, management of large data sets, and maintenance of data integrity; lab is designed as a workshop using guided exercises, peer sharing, and collaborative work groups to provide experiences integrated with content covered in didactic section of the course. Prerequisites: NURS:7002 and NURS:7006.

NURS:7006 Theory and Model Development**3 s.h.**

Critical role of theories in science and the importance of continuous refinement of theory throughout a program of research; focus on theory construction and model building; examination of relationships linking concepts; analysis of structure, scope, and forms of theories/models; construction of micro- or mid-range theories/models using positivistic and inductive approaches; emphasis on critical analysis of literature. Prerequisites: NURS:7000. Requirements: Ph.D. standing.

NURS:7310 Measurement in Health Research**3 s.h.**

How to develop and employ measures that are operationalized within the context of theories and conceptual models; sound measurement principles and practices, as well as adequate testing for reliability and validity using appropriate methods and procedures. Prerequisites: NURS:7006.

NURS:7404 Biological Markers in Health Research**3 s.h.**

Use of biomarkers as surrogate clinical endpoints, measure of behavior, and measures of exposures; judicious integration of biomarkers into an overall program of health research in light of pertinent considerations, including validity and reliability, feasibility and cost. Prerequisites: NURS:6811 and NURS:7002 and NURS:7003.

NURS:7509 Research Residency**1-3 s.h.**

Participation in a research project based on an individualized plan of study, under guidance of an experienced researcher; students register with the respective faculty member for a residency that takes place at the University of Iowa, or register with their advisor for a residency that takes place outside the University of Iowa. Requirements: admission to the Ph.D. in nursing.

NURS:7800 Independent Study**arr.**

Supervised study adjusted to needs of doctoral degree students. Requirements: doctoral enrollment.

NURS:7801 Seminar: Research Scholarship Role Development**3 s.h.**

Preparation for successful completion of doctoral coursework, comprehensive examination, and dissertation; faculty-guided structure provides opportunities for students to assimilate knowledge and behavior of a scholar and activities that facilitate and optimize socialization and success as nurse scientists and academic faculty. Requirements: Ph.D. standing.

NURS:7803 Research Practicum I**2 s.h.**

First of two practicums that serve as a system of apprenticeship by which students are mentored through selected aspects of scientific processes, methodologies, analysis, and dissemination of results; projects relevant to student's area of study. Requirements: Ph.D. standing.

NURS:7804 Research Practicum II**2 s.h.**

Second of two practicums that serve as a system of apprenticeship by which students are mentored through selected aspects of scientific processes, methodologies, analysis, and dissemination of results; project relevant to student's area of study. Requirements: Ph.D. standing.

NURS:7805 Dissertation Research**arr.**