College of Nursing

Dean
- Rita A. Frantz

Executive associate dean for academic affairs
- Thad R. Wilson

Associate dean for faculty
- Keela Herr

Associate dean for research
- Ann Marie McCarthy

Associate dean for undergraduate programs
- Ellen Cram

Director, M.S.N. and D.N.P. programs
- Virginia Conley

Director, Ph.D. program
- Sue Moorhead

Undergraduate degree: B.S.N.
Graduate degrees: M.S.N.; D.N.P.; Ph.D. in nursing
Graduate certificate: advanced practice nursing
Faculty: http://www.nursing.uiowa.edu/faculty-staff
Web site: http://www.nursing.uiowa.edu/

The College of Nursing is an integral part of the University of Iowa health science campus, sharing in and contributing to teaching, research, and patient care resources that have earned international recognition. The University provides an unusually fine setting for nursing preparation because the educational and clinical resources vital to educating nurses are available on or near the campus. Faculty and students participate fully in University life and contribute their time, interests, and abilities to the many general and special activities of a major research university.

The college's Bachelor of Science in Nursing (B.S.N.), Master of Science in Nursing (M.S.N.), clinical nurse leader (in the M.S.N.), and Doctor of Nursing Practice (D.N.P.) programs are accredited by the Commission on Collegiate Nursing Education (CCNE), an autonomous accrediting arm of the American Association of Colleges of Nursing (AACN). They also are approved by the Iowa Board of Nursing. The anesthesia nursing program (in the Doctor of Nursing Practice) is accredited by the Council on Accreditation of Nurse Anesthesia Educational Programs.

Graduates of the prelicensure B.S.N. qualify to take the licensure examination required for practice as registered nurses (RN). Graduates of advanced practice majors in the graduate program are eligible to take certification examinations and apply for Advanced Registered Nurse Practitioner (ARNP) licensure.

Undergraduate Program of Study
- Bachelor of Science in Nursing

The College of Nursing offers two paths to the Bachelor of Science in Nursing (B.S.N.): a prelicensure program for students who do not hold a nursing license (see "Bachelor of Science in Nursing" below) and a program for registered nurses (see "RN-B.S.N. for Registered Nurses" below).

The B.S.N. programs prepare students for careers caring for patients in hospitals and in community agencies such as public health services, schools, homes, and industries. They also provide a base for graduate study in nursing.

In addition to combining general education with specialized career preparation, the University of Iowa programs in nursing offer the advantages of full participation in the social, cultural, and recreational activities of a highly diverse campus community. A university education enables students to prepare for a career as well as a life of thought and action informed by knowledge, introspection, and contemplation.

The B.S.N. programs provide a basis for nurses' roles in wellness and health promotion, in acute care, and in long-term care for chronic illness. The professional nurse may provide care to individuals, families, groups, and communities along a continuum of health, illness, and disability in any sector of the health care system.

In addition to providing care, the nurse serves as a coordinator of health care by organizing and facilitating the delivery of comprehensive, efficient, and appropriate service to individuals, families, groups, and communities. The nurse demonstrates the ability to conceptualize the total continuing health needs of the patient, including legal and ethical aspects of care. The University of Iowa programs' goal is to produce graduates who are competent, committed, creative, and compassionate.

Bachelor of Science in Nursing

The Bachelor of Science in Nursing prelicensure program of study requires 128 s.h., including 64 s.h. in the nursing major and 64 s.h. in supporting course work that is prerequisite to the nursing major. The program is intended for students beginning their education in nursing. A B.S.N. program for registered nurses is described under "RN-B.S.N. for Registered Nurses" below.

B.S.N. students may complete their entire program at Iowa, enrolling in the College of Liberal Arts and Sciences to complete courses that are prerequisite to the nursing major, or they may transfer from an institution that offers comparable prerequisite courses that are approved by the University of Iowa and the College of Nursing. They must earn competitive admission to the College of Nursing once they have completed the prerequisite course work. Highly qualified applicants may be admitted to the College of Nursing directly from high school under the B.S.N. early decision program; see "Admission" later in this Catalog section.

Students who are part of the B.S.N. early decision program spend their first four semesters (two years) on prerequisite course work and complete the requirements for the nursing major during the next four semesters (the third and fourth years), earning the B.S.N. in a total of four academic years. Students who earn competitive admission to the College of Nursing have five semesters to complete prerequisite course work. They begin work for the nursing major in spring of their third year and complete the major in four semesters, earning the B.S.N.

University of Iowa students who have declared an interest in the prelicensure nursing program are advised at the University's Academic Advising Center until they are admitted to the College of Nursing. After admission to
the college, each student is assigned a College of Nursing faculty advisor and a professional advisor in the college’s Office of Student Services.

Nursing courses are based on concepts of health, deviations from health, and nursing intervention. Course work progresses in complexity across the curriculum. The curriculum reflects the current trend in health care delivery toward emphasis on nursing as a service provided both inside and outside hospitals. Students have access to clinical experiences selected from a multitude of agencies in Iowa and around the country.

The B.S.N. prelicensure program requires the following course work. Students must complete the prerequisite course work before beginning work required for the major in nursing.

### B.S.N.: PREREQUISITE COURSES

Early decision students complete all of the following prerequisites during their first and second years of enrollment at the University of Iowa. Competitive admission students must complete all of the following prerequisites, with the exception of two natural science courses and two social science courses, before they may apply for admission to the College of Nursing.

General education prerequisites (13 s.h.):

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>RHET:1030 Rhetoric</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>International and Global Issues course</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>Literary, Visual, and Performing Arts course</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>Values, Society, and Diversity course</td>
<td>3 s.h.</td>
</tr>
</tbody>
</table>

Natural science prerequisites (23 s.h.):

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACB:3110 Principles of Human Anatomy</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>BIOL:1141 Introductory Animal Biology</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>CHEM:1070 General Chemistry I</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>CHEM:1080 General Chemistry II</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>HHP:1300 Fundamentals of Human Physiology</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>HHP:2310 Nutrition and Health</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>MICR:3164 Nursing Microbiology</td>
<td>4 s.h.</td>
</tr>
</tbody>
</table>

Social science prerequisites—both of these (6 s.h.):

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS:1030 Human Development and Behavior</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PSY:1001 Elementary Psychology</td>
<td>3 s.h.</td>
</tr>
</tbody>
</table>

And one of these (3 s.h.):

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC:1010 Introduction to Sociology</td>
<td>3-4 s.h.</td>
</tr>
<tr>
<td>SOC:1020 Social Problems</td>
<td>3-4 s.h.</td>
</tr>
</tbody>
</table>

Other prerequisites (19 s.h.):

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS:3110 Healthcare Finance</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>MATH:1440 Mathematics for the Biological Sciences</td>
<td>4 s.h.</td>
</tr>
</tbody>
</table>

| Electives                                   | 12 s.h.|

#### B.S.N.: COURSES REQUIRED FOR THE MAJOR

Early decision students and competitive admission students complete the following courses for the major in nursing.

First semester in the major (17 s.h.):

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS:3128 Health Assessment and Communication Across the Lifespan</td>
<td>3 s.h.</td>
</tr>
</tbody>
</table>

Second semester in the major (18 s.h.):

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS:3615 Adult Medical/Surgical Nursing Practicum</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>NURS:3620 Gerontological Nursing</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>NURS:3625 Gerontological Nursing Practicum</td>
<td>2 s.h.</td>
</tr>
</tbody>
</table>

Third semester in the major (15 s.h.):

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS:3630 Parent-Child Nursing</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>NURS:3635 Parent Child Nursing Practicum</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>NURS:3640 Psychiatric/Mental Health Nursing</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>NURS:3645 Mental Health Nursing Practicum</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>NURS:3660 Professional Role III: Improving Health Systems</td>
<td>3 s.h.</td>
</tr>
</tbody>
</table>

| Elective                                    | 2 s.h.|

Fourth semester in the major (14 s.h.):

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS:3650 Community and Public Health Nursing</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>NURS:3655 Community and Public Health Nursing Practicum</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>NURS:4155 Senior Nursing Internship</td>
<td>5 s.h.</td>
</tr>
<tr>
<td>NURS:4160 Professional Role IV: Leadership and Professional Engagement</td>
<td>3 s.h.</td>
</tr>
</tbody>
</table>

| Elective                                    | 1 s.h.|

See B.S.N. Plans of Study on the College of Nursing website for semester-by-semester study plans for early decision and competitive admission students.

### RN-B.S.N. for Registered Nurses

The RN-B.S.N. program of study requires 32 s.h. of credit. RN-B.S.N. students must hold a valid Iowa nursing license (RN) and an Associate Degree in Nursing or Diploma in Nursing.

The program is designed to offer registered nurses the opportunity to build on their nursing knowledge and experience by earning a Bachelor of Science in Nursing. RN-B.S.N. students take courses that focus on professionalism and patient safety, research, improvement of health systems, leadership, professional engagement, and community and public health.

Students may transfer course work completed at other colleges and universities to satisfy the prerequisites, general education requirements, electives, and the world language requirement for admission to the College of Nursing (see "Admission to the RN-B.S.N. Program" below). Once a student is admitted to the RN-B.S.N. program, he or she has the option of completing the required 32 s.h. in three semesters or in five semesters.

Most of the RN-B.S.N. program is delivered online, with limited face-to-face meetings that are associated with
the practicum experience. Students must complete a practicum experience in Iowa and may be required to drive up to 100 miles to a regional practicum setting.

The College of Nursing participates as a receiving institution in the Iowa Statewide Articulation Plan for Nursing Education: RN to Baccalaureate.

The RN-B.S.N. program requires the following College of Nursing course work.**

**RN-B.S.N.: COURSES REQUIRED FOR THE MAJOR**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS:3110 Healthcare Finance</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>NURS:3160 Professional Role I: Professionalism and Patient Safety</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>NURS:3460 Professional Role II: Research</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>NURS:3518 Pathology</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>NURS:3650 Community and Public Health Nursing</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>NURS:3655 Community and Public Health Nursing Practicum</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>NURS:3660 Professional Role III: Improving Health Systems</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>NURS:3734 Introduction to Human Genetics</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>NURS:4160 Professional Role IV: Leadership and Professional Engagement</td>
<td>5 s.h.</td>
</tr>
<tr>
<td>NURS:4170 Baccalaureate Seminar</td>
<td>1 s.h.</td>
</tr>
<tr>
<td>Nursing electives</td>
<td>3 s.h.</td>
</tr>
</tbody>
</table>

See RN-B.S.N. Plans of Study on the College of Nursing web site for semester-by-semester views of required course work for full-time (three semesters) and part-time (five semesters) study.

**Honors in Nursing**

The College of Nursing Honors Program provides seminars and independent study experience for qualified students. In order to pursue honors studies in nursing, students must maintain a University of Iowa g.p.a. of at least 3.33 and a nursing major g.p.a. of at least 3.50.

The honors program in nursing enables students to explore subject matter based on individual interests, needs, and goals. It provides opportunities for self-initiative, research experience, and intellectual and personal development and challenges students to grow and excel. Students who fulfill the requirements of the program graduate with honors in nursing.

In addition to honors in their majors, prelicensure B.S.N. students have a variety of opportunities for honors study and activities through membership in the University of Iowa Honors Program; visit Honors at Iowa to learn about the University's honors program.

**Related Certificate or Minor: Aging Studies**

College of Nursing students may participate in the Aging Studies Program, which provides undergraduate students with a multidisciplinary approach to gerontology. The program offers a certificate (21 s.h.) and a minor (15 s.h.). Students plan their course of study with their academic advisor in close cooperation with the Aging Studies Program coordinator. See Aging Studies in the Catalog for details. The Aging Studies Program is administered by the School of Social Work (College of Liberal Arts and Sciences).

**Expenses and Insurance**

Students pay University of Iowa student fees throughout the B.S.N. program. They must purchase uniforms, shoes, a stethoscope, and a watch with a full-sweep second hand, and they must pay the cost of computer testing, supplies, and materials for required nursing courses. All nursing students arrange and pay for their own health screening requirements, health insurance, and transportation once they are enrolled in clinical nursing courses. They also pay fees that cover the cost of criminal background checks, laboratory equipment, and professional liability insurance.

**MANDATORY HEALTH INSURANCE**

Upon admission to the College of Nursing and each August afterward, all students must provide verification that they have obtained and currently hold health insurance that satisfies the following minimal standards of coverage (or an equivalent alternative health care plan):

- $250,000 lifetime benefit;
- coverage for hospitalization, including coverage for room and board, physician visits, surgeon services, X-ray, and lab services;
- inpatient deductible under an individual policy not exceeding $500 per admission and a 20 percent copayment/coinsurance requirement;
- coverage for medically necessary care, including physician services, X-ray, and lab services for treatment of emergencies, illness, accident, and injury.

**PROFESSIONAL LIABILITY INSURANCE**

All students in the College of Nursing are required to carry professional liability insurance throughout the duration of their program. Agencies that provide clinical practicums for College of Nursing programs require that students have insurance coverage. The College of Nursing provides students with information about the liability insurance requirement during orientation.

B.S.N. prelicensure students are covered by a group policy supported by student fees.

RN-B.S.N. students must provide verification that they are covered by professional liability insurance for registered nurses with a minimum coverage of $1 million per single occurrence and $3 million aggregate coverage.

**Admission**

Students entering the University who are not licensed registered nurses (RN) apply to the B.S.N. prelicensure program. Registered nurses apply to the RN-B.S.N. program.

All entering first-year and undergraduate transfer students who have earned fewer than 24 s.h. when they apply for admission to the University of Iowa must complete the American College Test (ACT) or the Scholastic Aptitude Test (SAT). For information about the American College Test, visit the ACT web site; for information about the Scholastic Aptitude Test, visit the College Board web site.

Applicants to the B.S.N. and RN-B.S.N. programs whose first language is not English must score at least 550 (paper-based) or 81 (Internet-based) on the Test of
English as a Foreign Language (TOEFL). Registered nurses educated outside the United States are required to present verification of having passed the Commission on Graduates of Foreign Nursing Schools (CGFNS) examination and specified Excelsior baccalaureate nursing examinations. Applicants admitted to the College of Nursing are expected to be able to meet the curriculum’s performance standards; see “Core Performance Standards” below.

A criminal background check is conducted for all prelicensure and undergraduate students before they begin the nursing major. Admission to all programs is conditional pending successful review of criminal background and abuse registry.

**ADMISSION TO THE B.S.N. PRELICENSURE PROGRAM**

All applicants to the B.S.N. prelicensure program (early decision applicants and competitive admission applicants) must have satisfied the following minimum high school course requirements.

- **English:** four years
- **Mathematics:** three years, including algebra I, algebra II, and geometry
- **Science:** one year of biology, one year of chemistry, and one year of physics
- **Social science:** three years
- **World languages:** four years (fourth-level proficiency) of the same world language or two years (second-level proficiency) in each of two world languages

**B.S.N. Early Decision Admission**

A select group of highly qualified students are admitted to the College of Nursing directly from high school through the B.S.N. Early Decision Program (EDP). To be considered for the EDP, students must meet three of the following four requirements:

- an ACT composite score of at least 28;
- an ACT science reasoning score of at least 25;
- a g.p.a. of at least 3.80; and
- completion of the minimum high school course requirements listed under “Admission to the B.S.N. Prelicensure Program” above.

Students admitted through the Early Decision Program must maintain a cumulative g.p.a. of at least 3.00 and clean criminal and student life records during their first four semesters in the program. Students who fail to meet these requirements may be subject to probation or dismissal from the EDP.

**B.S.N. Competitive Admission**

In order to apply for competitive admission to the College of Nursing, students must:

- have a cumulative g.p.a. of at least 3.00;
- have a minimum of 48 s.h. of college credit;
- have completed the minimum high school course requirements listed under "Admission to the B.S.N. Prelicensure Program" above, with any deficiencies satisfied through college course work;
- have completed all B.S.N. prerequisite course work listed under "Bachelor of Science in Nursing" above (a maximum of two natural science prerequisites and two social science prerequisites may be in progress or planned at the time of application); and
- must have a grade of C (2.00) or higher on all prerequisite course work.

In order to enter the College of Nursing, successful competitive admission applicants must:

- maintain a cumulative g.p.a. of at least 3.00;
- have a minimum of 64 s.h. of college credit; and
- have completed any remaining prerequisite course work listed under "Bachelor of Science in Nursing" above, including any remaining natural science and/or social science prerequisites.

Successful competitive admission students must complete any remaining natural science prerequisite no more than 10 years before they enter the College of Nursing and enroll in course work for the nursing major.

**ADMISSION TO THE RN-B.S.N. PROGRAM**

Applicants to the RN-B.S.N. program must hold an RN license and an Associate Degree in Nursing or Diploma in Nursing. They must have a cumulative g.p.a. of at least 3.00. Admission is highly competitive, with emphasis on the natural sciences (anatomy, biology, chemistry, microbiology, physiology), writing (composition I and II), and mathematics (statistics).

Applicants must be enrolled in or have completed prerequisite course work at the time of application to the RN-B.S.N. program and additional elective course work before entering the program. They may complete these requirements at a community college.

They also must complete course work in one or more world languages; the requirement varies according to the applicant’s year of high school graduation:

- before 1991: applicant is exempt from the world language requirement;
- 1991 and after: applicant must demonstrate second-level proficiency in a single world language.

**CORE PERFORMANCE STANDARDS**

Applicants to the College of Nursing are expected to be capable of completing the entire nursing curriculum and of earning a B.S.N. degree. Nursing is a practice discipline with cognitive, sensory, affective, and psychomotor performance requirements. The college’s core performance standards provide an objective measure on which to base informed decisions about whether individual students will be able to participate in the nursing program. The core performance standards also help students determine whether they will need accommodations or modifications in order to participate.

The core performance standards are provided to all students before matriculation and are available online in the B.S.N. Student Handbook; see Section VIII: Clinical Course and Health Science Student Requirements. A student with disabilities who believes that he or she may need assistance in meeting the core performance standards should contact Student Disability Services.
SELECTION
The college’s admission committee recommends to the dean the applicants who appear to be best qualified. Fulfillment of minimum admission requirements does not guarantee admission to the College of Nursing. The committee may require personal interviews. A physical examination report and specific health screening requirements must be on file at University of Iowa Student Health & Wellness 10 days before the class opens for the first clinical nursing course.

APPLICATION DEADLINES
B.S.N. prelicensure early decision admission: January 1 for fall entry
B.S.N. prelicensure competitive admission: April 1 for spring entry
RN-B.S.N. program: March 1 for fall entry; September 1 for spring entry

Financial Support
In addition to general assistance available to University students, there are assistance programs specifically for nursing students. Information about financial aid is available from the University's Office of Student Financial Aid.

Graduate Programs of Study
- Master of Science in Nursing
- Doctor of Nursing Practice
- Doctor of Philosophy in nursing
- Certificate in Advanced Practice Nursing

Graduate students in the College of Nursing must adhere to all Graduate College policies regarding academic standing, probation, and dismissal; see the Manual of Rules and Regulations of the Graduate College.

Master of Science in Nursing
The Master of Science in Nursing requires a minimum of 39 s.h. of graduate credit. The program has a clinical nurse leader focus. It is designed to build on general and professional baccalaureate study. The M.S.N. curriculum consists of a core component of 28 s.h., which students take with College of Nursing doctoral students, and a specialization component of 11 s.h. that centers on the clinical nurse leader role. Students must maintain a g.p.a. of at least 2.75 and must successfully complete a thesis, project, or portfolio.

Graduate students in the College of Nursing must adhere to all Graduate College policies regarding academic standing, probation, and dismissal. Course work taken 10 years or more before the M.S.N. final examination must be updated according to University policy.

The M.S.N. requires the following course work.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS:5002</td>
<td>Leadership and Management Essentials</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>NURS:5007</td>
<td>Applied Epidemiology</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>NURS:5009</td>
<td>Evaluating Evidence for Practice</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>NURS:5015</td>
<td>Health Systems, Finance, and Economics</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>NURS:5016</td>
<td>Healthcare Infrastructure and Policy</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>NURS:5017</td>
<td>Quality and Safety</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>NURS:5018</td>
<td>Clinical Education in the Care Environment</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>NURS:5025</td>
<td>Physiology and Pathophysiology for Advanced Clinical Practice</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>NURS:5031</td>
<td>Health Promotion and Assessment for Advanced Clinical Practice</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>NURS:5636</td>
<td>Clinical Nurse Leader Seminar</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>NURS:5666</td>
<td>Leadership in the Microsystem</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>NURS:5696</td>
<td>CNL Capstone Clinical Immersion</td>
<td>6 s.h.</td>
</tr>
</tbody>
</table>

See the M.S.N. course plan on the College of Nursing web site for a semester-by-semester course schedule.

Doctor of Nursing Practice
The Doctor of Nursing Practice requires a minimum of 72 s.h. of graduate credit. Students may complete the program in three to five years, depending on their focus area. Individuals who have been granted an M.S.N. may complete the D.N.P. with a minimum of 27 s.h. of graduate credit.

The D.N.P. program prepares nurses for leadership and advanced practice roles. Students choose from a number of specialties, including adult/gerontology nurse practitioner, anesthesia nursing, family nurse practitioner, neonatal nurse practitioner, pediatric nurse practitioner—primary care, pediatric nurse practitioner—acute care, psychiatric/mental health nurse practitioner, and health systems work.

All D.N.P. students complete basic graduate core courses, specialty courses, advanced core courses, and practicums. In didactic courses, they explore clinical leadership, public policy and advocacy, specialty systems, change theory, finance and business, and entrepreneurial tools. Visit D.N.P. Plans of Study on the College of Nursing web site to view required course work for each D.N.P. specialty.

D.N.P. students must complete a minimum of 1,000 practice experience hours. Individuals who enter the program having completed an M.S.N. may transfer approved clinical hours from their M.S.N. program to the D.N.P. program. The clinical hours requirement is evaluated for each student who has completed an M.S.N. with a specialty program. Students who completed more than 1,000 practice experience hours in an M.S.N. advanced practice program still must complete the number of D.N.P. practicum and capstone project hours determined in consultation with their advisor and the D.N.P. program director.

Transfer credit applicable to the D.N.P. is limited and must be approved by the College of Nursing executive associate dean for academic affairs. Transcripts for individuals who have completed an M.S.N. are evaluated individually.

Graduate students in the College of Nursing must adhere to all Graduate College policies regarding academic standing, probation, and dismissal. Course work taken 10 or more years before a student plans to graduate from the D.N.P. program must be updated according to University policy.
Doctor of Philosophy

The Doctor of Philosophy program in nursing requires a minimum of 74 s.h. of graduate credit. The program prepares students to advance nursing science and contribute to the body of nursing knowledge. It emphasizes student participation with faculty members on research teams; focused course work; presentation and publication of research-based knowledge; and interdisciplinary learning experiences. Graduates are prepared for careers as researchers, college and university faculty members, consultants, and leaders in the profession.

The program is open to individuals who have earned a bachelor's degree in nursing or a master's degree. Applicants who hold a bachelor's degree in nursing and an advanced degree outside nursing may be admitted; their curriculum is based on a review of their transcript.

Graduate students in the College of Nursing must adhere to all Graduate College policies regarding academic standing, probation, and dismissal. Course work taken 10 or more years before a student plans to graduate from the Ph.D. program must be updated according to University policy.

The Ph.D. in nursing requires the following work.

REQUIRED COURSES

Basic core (required for students who enter with a bachelor's degree in nursing):

NURS:5007 Applied Epidemiology 3 s.h.

Advanced core:

NURS:6008 Foundations of Nursing Science I 3 s.h.
NURS:6802 Health Policy, Law, and Advocacy 3 s.h.
NURS:6811 Social Determinants of Health and Health System Inequities 3 s.h.
NURS:7002 Designing Research 3 s.h.
NURS:7801 Seminar: Research Scholarship 3 s.h.
NURS:7803 Research Practicum I 1 s.h.
NURS:7804 Research Practicum II 1 s.h.
NURS:7805 Dissertation Research 6 s.h.

Intermediate statistics 3 s.h.
Clinical specialization courses 6 s.h.
Elective course 3 s.h.

Advanced research methods:

NURS:7000 Foundations of Nursing Science II 4 s.h.
NURS:7001 Qualitative Research 4 s.h.
NURS:7003 Quantitative Research 4 s.h.
NURS:7803 Research Practicum I 1 s.h.
NURS:7804 Research Practicum II 1 s.h.
GRAD:7270 Principles of Scholarly Integrity 0-1 s.h.
Advanced statistics 6 s.h.

Content focus:

NURS:7403 Advanced Seminar in Health Research (may be taken twice) 3 s.h.
Cognate courses 6-9 s.h.

Dissertation (students must earn a minimum of 11 s.h.):

NURS:7805 Dissertation Research arr.

COMPREHENSIVE EXAM AND DISSERTATION

All Ph.D. students must complete a written and oral comprehensive examination before they begin work on the dissertation. They must write the dissertation and defend it orally.

Certificate

The Certificate in Advanced Practice Nursing program enables D.N.P. students who are certified in a specialty area to pursue clinical training in a second specialty area. Students choose one of four certificate subprograms: adult/gerontology nurse practitioner, family nurse practitioner, pediatric nurse practitioner, or psychiatric/mental health nurse practitioner. Certificate requirements include advanced clinical core courses and a sequence of specialty courses determined by the coordinator of the specialty area. Students who complete the D.N.P. program and the certificate requirements are qualified to sit for a professional certification examination. Visit DNP —Plans of Study for information about certificate program requirements.

Related Certificate: Informatics

The Graduate College offers the Certificate in Informatics with a subprogram in health informatics, which requires 18 s.h. of credit. The subprogram emphasizes the organization, management, and use of health care information; health care research, education, and practice; and information technology developments in the socioeconomic context of health care.

College of Nursing students working toward the certificate complete IGPI:5200 Health Informatics I, which explores decision-making processes and technological tools to support health care administration, management, and practice; and EPID:5200 Principles of Public Health Informatics, which focuses on systematic applications of information science, computer science, and technology to public health practice, research, and learning; methods of disease surveillance, data collection, analysis, and reporting with health informatics.

Students earn an additional 12 s.h. of credit in foundational informatics course work, including one elective chosen in consultation with their major program advisor and their certificate advisor. Students who earn credit for a thesis, project, or independent study in their major program of study may apply the credit as an elective if the certificate advisor determines that the subject matter is pertinent.

To learn more, see "Certificate" in the Informatics (Graduate College) section of the Catalog. For additional information, see Health Informatics on the Graduate College web site.

Admission

Applicants to College of Nursing graduate programs must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations of the Graduate College.

Applicants must have a g.p.a. of at least 3.00. The College of Nursing has additional application requirements, as follows.

Applicants whose first language is not English must score at least 81 (Internet-based) on the Test of English as a
Foreign Language (TOEFL); or they must score at least 7.0 on the International English Language Testing System (IELTS).

A criminal background check is required for all graduate students upon admission.

ADMISSION TO THE M.S.N. AND D.N.P. PROGRAMS

Application requirements specific to the M.S.N. and D.N.P. programs are:

- a bachelor's degree with a major in nursing from an accredited program;
- satisfaction of the legal requirements for the practice of nursing in Iowa;
- current written recommendations from three persons knowledgeable about the applicant's competence in the practice of nursing and potential for leadership and scholarship (forms required);
- a current résumé, goal statement, and supplemental information form;
- transcripts from all undergraduate and graduate course work; and
- completion of an upper-level statistics course within five years of the application deadline; acceptable University of Iowa courses include BIOS:4120, PSQF:4143, STAT:3510, and STAT:4143; see Transfer Courses on ISIS for information about using equivalent courses from other institutions.

Application deadline for the M.S.N. program is February 1.
Application deadline for the D.N.P. program is February 1 for all specialties except anesthesia nursing, which has a June 1 application deadline.

Applications to both programs are reviewed once a year. In order to be reviewed, the application must be complete, with all materials submitted.

Applicant interviews are required for the D.N.P. and M.S.N. programs; in some cases, telephone interviews may be arranged. D.N.P. applicants with master's degrees in nursing from other schools must provide verification of completed clinical hours from their school's graduate director or must submit appropriate course syllabi.

Due to the level of web-based course work required, international students in the M.S.N.-Clinical Nurse Leader and Doctor of Nursing Practice programs of study are not eligible for F-1 or J-1 student immigration status. Questions regarding visas and immigration documentation should be directed to International Student and Scholar Services (ISSS).

ADMISSION TO THE PH.D. PROGRAM

The Ph.D. program accepts applications from individuals who have earned a bachelor's degree in nursing.

Applicants to the Ph.D. program must have taken the Graduate Record Examination (GRE) General Test, preferably within the preceding five years. They must have completed an accredited basic nursing program and must hold a current license to practice nursing (special license for international students). They also must have a g.p.a. of at least 3.00. Applicants must submit:

- a two-to-three-page statement describing their educational objectives, career goals, and an area of research for their doctoral study;
- three recommendations from nursing professionals that speak to the applicant's potential as a scholar;
- a current résumé or curriculum vitae; and
- a complete transcript of all college programs and courses.

Applicants who hold a master's degree must have successfully completed at least one graduate-level course in research and inferential statistics (3 s.h.).

Applicants with a bachelor's degree in nursing who apply directly to the Ph.D. program must have successfully completed an upper-level course in statistics. They also must submit a strong statement of their educational goals, career goals, and potential area of research.

Application deadlines for the Ph.D. program are November 15, March 1, and June 1. In order to be reviewed, the applicant's file must be complete, with all materials submitted.

Professional Improvement

Registered nurses who wish to take University of Iowa course work to fulfill professional or personal improvement objectives may request admission in the professional improvement (PI) category. This admission status allows students to take some graduate courses at the University without committing to a degree objective.

Admission as a nursing professional improvement student requires a formal application, including submission of three current written recommendations and all academic transcripts. GRE General Test scores, required by the University, must be submitted before the end of first semester registration.

Application deadlines are July 15 for fall semester admission, December 1 for spring semester admission, and May 1 for summer session admission.

Since acceptance as a PI student does not influence acceptance to the college's graduate degree programs, PI students interested in earning a graduate degree in nursing must apply for admission to the degree program (see "Admission" under "Graduate Programs" above). Students may count a maximum of 6 s.h. or two required nursing core courses that they complete as PI students toward M.S.N. requirements. Professional improvement students may not enroll in Ph.D. courses.

Continuing Education

The college offers nonacademic, short-term continuing education programs for registered nurses. Continuing Education Units (CEUs) are awarded for these programs. The College of Nursing is an Iowa Board of Nursing approved provider of continuing education, Provider Number 1.

Student Organizations

All College of Nursing B.S.N. prelicensure students are members of the National Student Nurses Association and its local chapter, the Iowa Association of Nursing Students (IANS). The University of Iowa Association of Nursing Students (UIANS) provides opportunities for
professional growth and development in nursing. UIANS representatives are members of the University of Iowa Student Government (UISG).

The University of Iowa Multicultural Nursing Association (UIMNA) provides support and network opportunities for leadership and professional growth and development for underrepresented students who are undergraduate nursing interest and nursing majors, graduate nursing students, and underrepresented nursing professionals in the region.

University of Iowa Men in Nursing (UIMIN) provides opportunities for nurses to meet, to recruit, to talk, and to influence the environment for men in nursing. It is open to all nursing students.

The college's Association of Graduate Nursing Students (AGNS) provides opportunities for professional growth, sharing of research, and representation on varied college and University committees.

Facilities

The College of Nursing Building is centrally located on the University’s main campus, in close proximity to the Carver College of Medicine, the College of Dentistry, the College of Pharmacy, the College of Public Health, University of Iowa Hospitals and Clinics, Bowen Science Building, and the Hardin Library for the Health Sciences.

The college's building was completed in 1971. Administrative offices are located on the first floor, a research suite is on the second floor, and faculty offices are on the third and fourth floors. The lower level houses the Office of Student Services; a student lounge; a computer lab; and the Ph.D. student office, with desk space, access to computers, a printer, a copier, and a meeting space. Classrooms are located throughout the building.

The Nursing Clinical Education Center provides clinical experiences for nursing students and serves as a resource for the University's professional nursing staff. Opened in 2006 at University of Iowa Hospitals and Clinics, the center offers the latest technology in an 11-room clinical simulation lab. It also has an 86-seat classroom, a resource library, and gathering spaces for private study. The center is operated collaboratively by the College of Nursing and UI Hospitals and Clinics Department of Nursing Services and Patient Care.

Courses

Lower-Level Undergraduate

**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. Prerequisites: PSY:1001. Requirements: nursing or nursing-interest major.

**NURS:1800 Basic Aspects of Aging** 3 s.h.

Upper-Level Undergraduate and Graduate

**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: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:3150 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: ACB:3110 and BIOL:1141 and CHEM:1070 and CHEM:1080 and HHP:3500 and MATH:1440 and MICR:3164. Corequisites: NURS:3128 and NURS:3150 and NURS:3160 and NURS:3518. Requirements: 64 s.h. of undergraduate course work, including successful completion of required science courses and general education liberal arts and sciences requirements and electives.
NURS:3150 Clinical Simulation Laboratory I 3 s.h.
First of a two-part series focusing on laboratory-based learning and simulation experience involving basic biophysical and psychosocial assessment skills needed to provide safe and effective nursing care across diverse settings and populations; emphasis on development of nurse-patient and intra- and inter-professional communication skills. Requirements: admission to the 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 arr.
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:3138 and NURS:3150. Corequisites: NURS:3450 and NURS:3460 and NURS:3620 and NURS:3625.

NURS:3450 Clinical Simulation Laboratory II 2 s.h.
Second of a two-part series focusing on laboratory-based learning and simulation experience involving complex biophysical and psychosocial assessment skills, critical thinking, and decision making needed to provide safe and effective nursing care across diverse settings and populations; emphasis on development of clinical reasoning skills across the lifespan, including end-of-life care. Prerequisites: NURS:3128 and NURS:3138 and NURS:3150 and NURS:3160 and NURS:3518. Corequisites: NURS:3438.

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: ACB:3110 and BIOL:1141 and CHEM:1070 and CHEM:1080 and HHP:3500 and MICR:3164.

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

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, SSW:3600, RELS:3701.

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:3150 and NURS:3160 and NURS:3518. Corequisites: NURS:3438 and NURS:3450 and NURS:3450 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:3150 and NURS:3160 and NURS:3518. Corequisites: NURS:3438 and NURS:3450 and NURS:3460 and NURS:3620 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:3128 and NURS:3138 and NURS:3150 and NURS:3160 and NURS:3518. Corequisites: NURS:3438 and NURS:3450 and NURS:3460 and NURS:3615 and NURS:3620.
**NURS:3630 Parent-Child Nursing**  
3 s.h.  
Promoting, maintaining, and restoring the health of parents, infants, children, and adolescents in childbearing and childrearing families; nursing care prior to and during pregnancy, labor, and delivery; care of newborns, well children, and children with acute and chronic illness examined within the context of family and community. Prerequisites: NURS:3128 and NURS:3138 and NURS:3150 and NURS:3438 and NURS:3450 and NURS:3518. Corequisites: NURS:3640 and NURS:3645 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:3615 and NURS:3625. Corequisites: NURS:3630 and 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:3128 and NURS:3138 and NURS:3150 and NURS:3438 and NURS:3450 and NURS:3518. Corequisites: NURS:3630 and 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:3615 and NURS:3625. Corequisites: NURS:3630 and 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:3110 and NURS:3160 and NURS:3460 and NURS:3518 and NURS:3660. Corequisites: NURS:3655. Requirements: for pre-licensure B.S.N. student — successful completion of NURS:3620, NURS:3625, NURS:3630, 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: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. 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:3160 and NURS:3460.

**NURS:3712 Human Sexuality, Diversity, and Society**  
1-3 s.h.  
Physiological, psychological aspects; parameters defined by students, instructor. Same as SSW:3712.

**NURS:3715 Health Disparities and Cultural Competence**  
2-4 s.h.  
Characteristics, causes, and effects of health disparities in the U.S. health care system; foundation for development of knowledge, attitudes, and skills required of culturally competent health care providers; definitions and models of cultural competence, characteristics of culturally effective practitioners and workplaces; health disparities among specific populations, evidence for cultural competence as a remedy; taking a culturally appropriate history; working with interpreters; legal and professional imperatives for cultural competence. Same as PHAR:8715.

**NURS:3728 Patient Safety for Health Professional Students**  
2 s.h.  
Interprofessional experience using multiple pedagogic methods, including team-based simulation to teach about patient safety and teamwork; collaboratively taught by representatives from anesthesia, pediatrics, internal medicine, Office of Consultation and Research in Medical Education, College of Nursing, College of Public Health, and office of UIHC chief quality officer. Same as MED:8410.

**NURS:3730 Teaching and Learning Online**  
3 s.h.  
Synthesis and critical evaluation of current knowledge regarding use of online learning as a tool; empirical research, best practices, and available resources to support effective implementation and management of online learning; skill development and practice; web-based course.

**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 Nursing Care of the Patient in Pain**
3 s.h.
Assessment, pharmacological and nonpharmacological nursing intervention, evaluation of acute, chronic-benign, and chronic-malignant pain. Requirements: RN license, or 3rd- or 4th-year standing in nursing B.S.N. program.

**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**
2-4 s.h.

**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:3781 Clinical Instruction in Nursing Education**
3 s.h.
Role and functions of the nurse educator in the clinical setting; development of teaching strategies and learning activities that support effective clinical and laboratory instruction; evidence-based teaching and evaluation practices; how to incorporate the core concepts of critical thinking for clinical decision-making, effective communication, and cultural competence into clinical experiences; learners with diverse learning styles and backgrounds; ethical and legal implications in clinical teaching and evaluation of learning; technology and emerging trends that impact teaching in the clinical setting. Requirements: RN-B.S.N. or graduate standing.

**NURS:4096 Distance Education: Honors Independent Study**
1-3 s.h.
Supervised study designed for individual honors undergraduate students.

**NURS:4098 Honors Seminar**
1 s.h.
Supervised study designed for individual honors students.

**NURS:4099 Honors Independent Study**
1-3 s.h.
Supervised study designed for individual honors students.

**NURS:4155 Senior Nursing Internship**
3 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:3128 and NURS:3138 and NURS:3150 and NURS:3160 and NURS:3438 and NURS:3450 and NURS:3460 and NURS:3518 and NURS:3620 and NURS:3625 and NURS:3630 and NURS:3640 and NURS:3645 and NURS:3660. 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:3160 and NURS:3460. 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:4205 Communication for the Professional Nurse**
0 s.h.
Communication with all members of a health care team to deliver safe, high quality care; introduction to transition stages, survival strategies, journaling and reflecting; how to develop a professional growth plan; first in a three-part series. Requirements: enrollment in online nurse residency program.

**NURS:4210 Responsibilities of the Professional Nurse**
0 s.h.
Understanding and application of concepts of safety, quality improvement, and evidence-based practice to improve patient care; second in a three-part series. Prerequisites: NURS:4205. Requirements: enrollment in online nurse residency program.

**NURS:4215 Decision Making at the Point of Care**
0 s.h.
Making the right decision when providing care to all patients to deliver safe and high quality care; third in a three-part series. Prerequisites: NURS:4205 and NURS:4210. Requirements: enrollment in online nurse residency program.

**NURS:4216 Group Facilitation in Human Sexuality**
0-3 s.h.
Principles of group dynamics, group process; leadership skills for small, task-oriented discussion groups on human sexuality. Prerequisites: SSW:3712. Same as SSW:4216.
Graduate
Graduate courses are offered only if minimum enrollments are maintained.

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. Requirements: graduate standing.

NURS:5007 Applied Epidemiology 3 s.h.
Basic principles and methods of epidemiology; application to field of nursing and nursing research; historical perspective 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:5008 Foundations of Nursing Science I 3 s.h.
Integration of interdisciplinary theories and philosophies of science relevant to nursing; emphasis on application of theory and philosophy in advanced nursing practice and research. Requirements: doctoral standing.

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: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 Healthcare Infrastructure and Policy 3 s.h.
Health care infrastructure; health care reform and its implementation; political theories, policy definition, role of health professionals in policy-making process, information technology and its role in patient care, cultural factors affecting access and quality of care.

NURS:5017 Quality and Safety 3 s.h.
Foundation for understanding concepts of safety and quality across health care settings; providing a safe environment; elevating staff performance and clinical outcomes related to safety and quality; 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: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 I 2 s.h.
Builds on foundational knowledge of human physiology; in-depth study of pathophysiologic processes across lifespan; focus on disregulation 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 varied sources related to selected pathophysiological phenomena. Two semesters. Prerequisites: MPB:5200. Corequisites: NURS:5033.
NURS:5024 Pathophysiology for Advanced Clinical Practice II
Builds on foundational knowledge of human physiology; in-depth study of pathophysiologic processes across lifespan; focus on disruption 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 varied sources related to selected pathophysiological phenomena. Two semesters. Prerequisites: NURS:5023. Corequisites: NURS:5024.

NURS:5025 Physiology and Pathophysiology for Advanced Clinical Practice
Regulation of cellular, organ, and system function; regulation of internal milieu; functional interrelationships among body systems; cellular and body-wide mechanisms of self-defense; illustrative examples of pathological phenomena.

NURS:5029 Pharmacotherapeutics for Advanced Clinical Practice
Pharmacologic, pharmacokinetic, and pharmacodynamic principles essential for advanced clinical practice; classes of drugs frequently used in management of common clinical conditions; legal considerations in prescriptive authority. Prerequisites: NURS:5025.

NURS:5031 Health Promotion and Assessment for Advanced Clinical Practice
Didactic and clinical laboratory instruction; emphasis on knowledge and skills necessary for advanced health assessment and health promotion interventions for individuals and families across the lifespan; emphasis on selected populations and persons with specific pathology.

NURS:5032 Mental Disorders in Advanced Practice
Foundation for advanced practice nurse to provide care for common mental health disorders; presentation of neurophysiologic, 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. Requirements: admission to direct care DNP program.

NURS:5033 Pharmacotherapeutics for Advanced Practice Nursing I
Pharmacotherapeutic principles essential for advanced clinical practice; specific drug classes frequently used in management of clinical conditions experienced by various patient populations; legal considerations related to prescriptive authority and prescribing patterns. First in a two-course series. Corequisites: NURS:5023.

NURS:5034 Pharmacotherapeutics for Advanced Practice Nursing II
Pharmacotherapeutic principles essential for advanced clinical practice; specific drug classes frequently used in management of clinical conditions experienced by various patient populations; legal considerations related to prescriptive authority and prescribing patterns. Second in a two-course series. Prerequisites: NURS:5033. Corequisites: NURS:5024.

NURS:5035 Graduate Pharmacology Specialty
Principles of pharmacology learned in NURS:5033 and NURS:5034; principles and practices necessary for safe prescribing and medication management of a specialty population (e.g., pediatrics, geriatrics, acute care, mental health). Prerequisites: MPB:5200 and NURS:5023 and NURS:5024 and NURS:5033 and NURS:5034.

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:5029. Same as ASP:5401.

NURS:5500 Advanced Practice Genetic Nursing I
Advanced practice genetic nursing for those at risk for genetic conditions or a condition with a genetic component; application of genetic/genomic science to nursing practice including chromosomal variations; Mendelian and nontraditional inheritance; preconception and prenatal health care in genetics; dysmorphology examinations; developmental delay associated with genetic conditions; application of molecular methodology to clinical and research practice; beliefs about race and ethnicity in the genomic era; ethical, legal, and social implications of genetic nursing. Corequisites: NURS:3734. Requirements: enrollment in APN-Genetics M.S.N. program.

NURS:5501 Advanced Practice Genetic Nursing II
Advanced practice genetic nursing for individuals, families, and populations who are at risk for genetic conditions or who have a condition with a genetic component; application of genetic science to nursing assessments, interventions, and outcomes; genomics and the delivery of health care in primary and public health; pharmacogenetics; genomic therapeutics; childhood onset genetic disorders; adult onset genetic disorders; part two of the Advanced Practice Nursing Genetics course series. Prerequisites: NURS:3734 and NURS:5500. Requirements: enrollment in APN-Genetics M.S.N. program.

NURS:5636 Clinical Nurse Leader Seminar
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
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. Requirements: admission to M.S.N.-CNL program.
**NURS:5696 CNL Capstone Clinical Immersion**  
6 s.h.  
Intensive immersion in role and practice expectations of the 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: concurrent enrollment in master's portfolio.

**NURS:5800 Independent Study**  
arr.  
Supervised study and/or clinical practice adjusted to needs of master’s degree students. Requirements: M.S.N. enrollment.

**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. Requirements: M.S.N. enrollment.

**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. Requirements: M.S.N. enrollment.

**NURS:5805 Thesis**  
arr.  
Opportunity for systematic investigation of a nursing problem of student's choice under guidance of faculty.

**NURS:6000 Human Anatomy for Advanced Practice**  
3 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: admission to anesthesia nursing program. Recommendations: completion of an undergraduate human anatomy and physiology course. Same as ACB:6000.

**NURS:6001 Human Physiology and Pathophysiology for Advanced Practice**  
3 s.h.  
Detailed study of normal and abnormal human physiology, including mechanisms that govern and support cell, organ, and system function; builds on basic sciences required for undergraduate nursing curriculum and on clinical skills from experience in intensive care setting. Requirements: admission to anesthesia nursing program.

**NURS:6005 Chemical and Physical Principles of Anesthesia Practice**  
3 s.h.  
Basic chemical and physical properties of molecules fundamental to practice of anesthesia; relationship of these properties in relation to physiological processes and pharmacological principles essential in monitoring a patient’s physical status and administration of anesthesia medications: basic chemical and physical calculations, properties of substances in solution, measurement of such chemical species, behavior of gases and other fluids, effects of heat transfer, specific chemistry of inhaled and intravenous anesthetics and adjuvant drugs. Requirements: admission to anesthesia nursing program. Same as ANES:6005.

**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. Requirements: grade of 2.75 or higher in PCOL:6204 and 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:6006 and NURS:6016. Requirements: grade of 2.67 or higher in NURS:6006 and NURS:6016. 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 or ANES:6007. Requirements: grade of 2.67 or higher in NURS:6007. 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 or ANES:6007. Requirements: grade of 2.67 or higher in NURS:6007. Same as ANES:6012.
**NURS:6016 Equipment and Technological Principles of Anesthesia Practice**  
3 s.h.  
Introduction to gas and anesthesia delivery systems, ancillary equipment, monitoring devices, infusion devices, invasive line placement, airway management equipment, and anesthesia electronic medical record keeping; correlation of applicable chemical and physical principles for use, safe operation, and care of all anesthesia and related equipment. Prerequisites: NURS:6005 or ANES:6005. Corequisites: NURS:6006. Requirements: anesthesia nursing program enrollment. Same as ANES:6016.

**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:6006 and NURS:6016. 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, gynecologic, urologic, dental, ENT, 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, gynecologic, urologic, 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. 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:5025 and NURS:5029.

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

**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:5025 and NURS:5029.

**NURS:6201 Primary Care: Adults and Older Individuals II**  
3 s.h.  
Continuation of NURS:6200. Prerequisites: NURS:6200.

**NURS:6500 Psychiatric/Mental Health Nursing Theory I**  
4 s.h.  
Introduction to psychological principles and theories as related to mental health across the life span, intersections between physical and mental health, and role of advanced practice nurse in psychiatric/mental health care; examination of psychological theory in a life span developmental framework from infancy to older adult; role of cultural diversity in mental health; emphasis on assessment, diagnosis, and management of mental disorders common in adults. Prerequisites: NURS:5029 and NURS:5032. Corequisites: NURS:6701.

**NURS:6501 Psychiatric/Mental Health Nursing Theory II**  
4 s.h.  
Builds on prior life span content with specific focus on selected populations, families, and groups; define and expand practice of psychiatric/mental health nursing based on integrated theory, standardized languages, and research; varied 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 and NURS:6701. Corequisites: NURS:6702.

**NURS:6550 Executive 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 executive 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 Managing Care in an Organizational Environment**  
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.

**For Doctoral Students**
The following courses are open to doctoral students; others must have the instructor's consent in order to enroll.

**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. Requirements: M.S.N. enrollment.

**NURS:5807 Distance Education: Master's Thesis** arr.
Systematic investigation of a nursing problem of student's choice under guidance of faculty. Requirements: M.S.N. enrollment.

**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.

**NURS:6702 Advanced Practice Clinical Practicum II** 3-4 s.h.
Continuation of NURS:6701; emphasis on diagnostic reasoning and formulation of treatment plans.

**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.

**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:6800 Emerging Science** 3 s.h.
Emerging science to prepare leaders, advanced practice practitioners, and researchers to meet challenges of today's workforce and health care environment; opportunities to apply emerging health care science that influence health care policy, education, research, and 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. Requirements: doctoral standing.

**NURS:6808 Clinical Decision Making 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 DNP Role Integration I** 2 s.h.
Knowledge, skills, and abilities required to function in D.N.P. role and as a leader in health care. First in a two-course sequence. Requirements: doctoral standing.

**NURS:6810 DNP Role Integration II** 2 s.h.
Synthesis and application of knowledge, skills, and abilities required to function in D.N.P. role and as a leader in health care. Second in a two-course sequence. Prerequisites: NURS:6809. Requirements: doctoral standing.

**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. Requirements: doctoral standing.

**NURS:6825 Clinical Leadership Project** 1-5 s.h.
Opportunity for in-depth analysis and synthesis of a practice, system, or policy problem related to advanced nursing practice; development of an evidence-based proposal to benefit a group, population, or community; demonstration of leadership in assessment, planning, implementation, and evaluation. 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. Prerequisites: IE:3700. Same as IE:6350.

**NURS:7000 Foundations of Nursing Science II** 4 s.h.
Introduction to philosophical, historical, and conceptual underpinnings of contemporary nursing scholarship; students read primary sources on development of nursing knowledge and classic and contemporary works in philosophy of science; how these ideas influence development of nursing thought; two critical concepts of research (cause and validity); laboratory tools for synthesis of existing literature (integrative review, systematic review, concept analysis); synthesis of literature in student's interest area to identify and apply selected approach. Prerequisites: NURS:5008. Requirements: Ph.D. standing.

**NURS:7001 Qualitative Research** 4 s.h.
Qualitative research; ethnography, grounded theory, narrative, phenomenology, philosophical underpinnings, and research designs across traditions; current and emerging issues (i.e., mixed methods, meta-synthesis, working with vulnerable populations); guided exercises, peer sharing, collaborative group projects; qualitative interviewing and transcription, field work, participant observation; use of software for managing qualitative data; data coding, analysis and interpretation; critique of qualitative research proposals and manuscripts. Prerequisites: NURS:7000 and NURS:7002.

**NURS:7002 Designing Research** 3 s.h.
Introduction to designing research studies; issues related to research design as a set of choices influenced by aims, research questions, styles/traditions of research; conceptual frameworks/theories. Requirements: Ph.D. standing.

**NURS:7003 Quantitative Research** 4 s.h.
Refinement of students' understanding of the application of scientific logic; criteria for causality, its application in health-related research; various quantitative methods; sampling theory and approaches to sample selection, recruitment, and methods; issues related to instrument selection, reliability and validity considerations; management of large data sets and maintenance of data integrity; guided exercises, peer sharing, and collaborative groups provide experiences integrated with content in didactic section. Prerequisites: NURS:7000 and NURS:7002.

**NURS:7202 Genetic Nursing Research** 3 s.h.
Concepts in human genetics integrated with nursing research; methodological issues in study of populations with specific genetic problems; generation of testable hypotheses.

**NURS:7310 Methods and Measurement in Clinical Pain Research** 2 s.h.
Basic theoretical models for understanding pain; insight into the state of science of clinical pain research; issues and challenges related to conduction of clinical pain research; designs, vulnerable populations, methodology, and measurement strategies relevant to clinical trials; comparative effectiveness and translational research studies; interdisciplinary presentations of research experiences, issues, and solutions to provide a foundation for discussion and analysis of best practices for clinical pain research. Corequisites: PTRS:6133. Requirements: Ph.D. standing. Recommendations: graduate-level research methods/design course and pathophysiology.

**NURS:7400 State of the Science in Biobehavioral Research on Aging** 3 s.h.
Analysis and evaluation of science in biobehavioral aging research; overview of aging research and interdisciplinary contributions; biobehavioral phenomena pertinent to aging populations; relevant epidemiologic research, population/community-based research, primary prevention research, qualitative and quantitative analyses, instrumentation, intervention research, measurement studies; ethical and methodological issues, context of care; identification of literature gaps and future research agendas that promote successful aging. Requirements: for NURS:7400 — doctoral standing; for ASP:7400 — Ph.D. enrollment. Recommendations: knowledge of pathophysiology, research design, and statistics. Same as ASP:7400.

**NURS:7401 State of the Science in Geriatric Mental Health Research** 3 s.h.
Analysis and evaluation of science in geriatric mental health research in nursing and other disciplines; cognitive and affective function, substance abuse, and caregiver health/support; relevant epidemiologic research, population/community-based research, primary prevention research, qualitative and quantitative analyses, instrumentation, intervention research, and measurement studies; review and analysis of program evaluation and services research, emphasis on ethical and methodological issues; identification of literature gaps and future research agendas that promote successful aging. Requirements: for NURS:7401 — doctoral standing; for ASP:7401 — Ph.D. enrollment. Recommendations: knowledge of psychopathology, research design, and statistics. Same as ASP:7401.

**NURS:7403 Advanced Seminar in Health Research** 3 s.h.
Health research across the lifespan and health care continuum; specific topics based on the state of the science and emerging science initiatives put forth by NIH and other funding agencies. Requirements: doctoral standing.

**NURS:7509 Research Residency** 3 s.h.
Participation in a research project based on an individualized plan of study, under guidance of a preceptor.

**NURS:7800 Independent Study** arr.
Supervised study adjusted to needs of doctoral degree students. Requirements: Ph.D. enrollment.

**NURS:7801 Seminar: Research Scholarship Role Development** 3 s.h.
Preparation for successful completion of doctoral course work, 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**  1 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**  1 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.