GRADUATE

The sections that follow describe the Master of Science (M.S.), Doctor of Nursing Practice (D.N.P.), and Doctor of Philosophy (Ph.D.) degrees offered by the School of Nursing; and list the courses for each. School of Nursing students are expected to operate under the general policies of the University and the school, as well as the specific policies of the degree in which they are enrolled. Graduate education provides the student opportunities to develop advanced knowledge, skills, and attitudes relevant to a specific area of interest in nursing. Programs of study prepare the nurse for practice, leadership, and research as appropriate to his/her professional role.

Academic policies

Academic residence

To qualify for a degree from the graduate department in nursing at Loma Linda University, the student must take a minimum of 80 percent of the academic curriculum while in residence at the University, i.e., 48 units for the master’s degree; 55-119 units for Doctor of Nursing Practice, depending on the selected concentration area and 60-86 units for the Doctor of Philosophy degree.

Transfer credits

1. A transfer student may transfer credits up to 20 percent of the units required by the chosen program to be applied to the degree requirements at Loma Linda University. This transfer is limited to credits for which a grade of B (3.0) or better has been recorded and the course work was done at an accredited institution and meets the requirements of a course for the degree at LLU.
2. A maximum of nine quarter units that have been previously applied to another degree may be accepted as advanced standing upon petition.
3. The maximum number of transfer credit towards a master’s or doctoral degree may not exceed 20 percent of the minimum credits required for the degree.
4. Following acceptance into a graduate program, all required courses must be taken at Loma Linda University.
5. Credits taken through NEXxus for graduate courses are not considered transfer credits.
6. Transfer credits will not be used to offset course work at this University with less than a B grade.

Academic standing

1. Course grades
   a. The expected earned grade level for graduate studies is a cumulative grade point average of 3.0 (B average) or higher.
   b. Students must earn a grade of B (85 percent) or higher in all courses. If the earned grade is less than a B, the course must be repeated, except as noted in 3 A and 4 A below.
   c. For all CNS and NP clinical courses, an earned grade of less than B (3.0) may not be repeated.
   d. For all courses required nurse anesthesia, an earned grade of less than B (3.0) may not be repeated.
2. Withdrawal and repeating course
   a. A student may withdraw only one time from any given core, concentration, or clinical course. (See 4B and 5B below for exception for Nurse Anesthesia students).
   b. A student may repeat no more than one course in the program.
   c. Students requesting to repeat a clinical course due to a withdrawal are placed on a waiting list, according to the timing of the request.
   d. Nurse anesthesia students who withdraw from a course may not continue in the program.
   e. Nurse anesthesia students may not repeat a course.

3. Academic probation
   At the end of each quarter, student G.P.A.s will be reviewed. Students will be placed on probationary status if:
   a. the earned G.P.A. is less than 3.0 cumulatively
   b. If the earned G.P.A. is less than 3.0 in the nursing major
   c. If a course must be repeated due to a grade lower than an earned B in the CNS (core and concentration courses), Nursing Administration, Nursing Education concentration areas or in the DNP or PhD programs, the courses must be retaken and a grade of B or higher earned before proceeding in the clinical sequence if the low grade occurred in a clinical area that allows a course to be repeated (Nursing Administration, Nursing Education and DNP). To repeat the course, it will be necessary to wait until the course is offered again and has space.
   i. While on probation, a student:
      1. May not take the clinical focus courses, unless this is the course that must be repeated
      2. May not submit the comprehensive project
   4. Academic probation may be removed when the student:
      a. Retakes the course and earns a grade of B or higher.
      b. Raises the G.P.A. to 3.0 or higher the next quarter.
      c. Academic termination.
   5. Academic enrollment will be terminated if:
      a. The cumulative G.P.A. has not been raised to 3.0 or above while on academic probation.
      b. Any grade lower than B has not been raised when the course is retaken.
      c. A CNS or NP student earns a grade of B- (2.7) or lower in a clinical course.
      d. A nurse anesthesia student earns a grade of B- (2.7) or lower in any course.

Clinical probation

Clinical work must be evaluated as satisfactory. The faculty may recommend that the student be placed on clinical probation. While on probation, the student must demonstrate satisfactory clinical work as stipulated by the faculty; or the student will be dismissed from the school.

Clinical termination

A student may be dismissed from the program if there is evidence of:

1. Unsafe clinical behavior in any of the areas of knowledge, skill, and attitudes
2. Unethical clinical behavior, such as, but not limited to, falsification of records and/or reporting, photographing and/or recording in the clinical site, and posting patient information or photos on social media sites.

Application for candidacy

A student in the master’s degree program will apply for candidacy on Form A after completing at least 25 units of required graduate course
work. A PhD degree student will be advanced to candidacy after successful defense of the dissertation proposal. A DNP degree student will be advanced to candidacy after successful defense of the project proposal.

Time limits
The time lapse from first enrollment in a graduate curriculum to the conferring of the master's degree may not exceed five years. For the doctoral degrees, seven years are allowed after the date of admission. A student desiring reinstatement must reapply. This procedure implies a re-evaluation of the student's total academic plan.

Any credit transferred to the school or taken in residence and submitted toward a graduate degree is nullified seven years from the date when the course was completed. Refer to university policy on satisfactory academic progress.

Scholastic standing
Grade scale
The graduate department in nursing uses the following percentages for determining grades:

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<thead>
<tr>
<th>Percentage</th>
<th>Grade</th>
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<tbody>
<tr>
<td>95-100%</td>
<td>A</td>
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<tr>
<td>92-94%</td>
<td>A-</td>
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<tr>
<td>88-91%</td>
<td>B+</td>
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<td>85-87%</td>
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<td>82-84%</td>
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<td>79-81%</td>
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<td>68-70%</td>
<td>D+</td>
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<tr>
<td>63-67%</td>
<td>D</td>
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<tr>
<td>Below 62%</td>
<td>F</td>
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Practicum experiences
Practicum experiences shall be individually structured to meet students’ needs and program requirements. Practicum experiences are arranged by practicum faculty after consultation with advisors and appropriate agency personnel. Off-campus placement is formalized through written contract or letter of agreement. This process may take as long as six months. Students requesting practicum experiences at sites that will require additional costs—such as faculty travel, phone calls, or legal advice—are responsible for this expense.

For advanced practice CNS or NP concentrations, due to the intensive nature of the clinical courses, we strongly recommend that the student keeps their workload to less than 20 hours per week. Employment for CRNA students is strongly discouraged. Students are not permitted to work within 10 hours of the start of a clinical shift. Employment by title or function prior to graduation is forbidden.

Comprehensive project
A written, comprehensive project is required of all M.S. degree students (NGRD 610). The student is expected to integrate, evaluate, synthesize and apply theories and research studied in the graduate program. Each clinical track will guide development of the project.

Thesis and dissertation
Thesis is optional for the M.S. degree. The student’s research, thesis, project or dissertation preparation are under the direction of his/her guidance committee. The student is urged to secure the committee’s approval of the topic and research design as early as is feasible. Such approval must be secured before petition is made for advancement to candidacy.

Dissertation format
Consultation with the Faculty of Graduate Studies office is encouraged to help the student avoid formatting errors in the dissertation process that would require him/her to edit large sections of manuscript.

Portfolio
A portfolio, developed during the program of study is required of all students

Graduation requirements
Degree candidates shall have:

1. Completed all requirements for admission to the respective curriculum.
2. Completed all requirements of the curriculum, including required course work, specified attendance, level of scholarship, and length of residence.
3. Given evidence of moral character, of due regard for Christian citizenship, and of consistent responsiveness to the established aims of the University and of the respective discipline.
4. Discharged financial obligations to the University.

It is the responsibility of the student to see that all requirements have been met.

A student who completes the requirements for a degree at the end of the spring or Summer Quarter is expected to be present at the university’s ceremony for conferring of degrees and awarding of diplomas. Permission for the conferral of a degree in absentia is granted by the University upon recommendation of the dean of the school.

A student who completes the requirements for a degree at the end of the Autumn or Winter Quarter is invited, but not required, to participate in the subsequent conferring of degrees. Degrees are conferred at commencements only. See Section II of the Academic Policies.

The University reserves the right to prohibit participation in commencement by a candidate who has not satisfactorily complied with all requirements.

Additional requirements/Policies
For additional policies governing Loma Linda University students, see the academic policies and information (http://llucatalog.llu.edu/about-university/academic-policies-information) section under the heading, About this University, in this CATALOG, as well as the University Student Handbook which can be accessed at www.llu.edu/student-handbook/. Students are responsible for informing themselves of and satisfactorily meeting all regulations pertinent to registration, matriculation, and graduation.

Courses
NGRD 500. Gerontological Health and Wellness. 2 Units.
Continues development of the advanced practice role of health promotion, maintenance, and management. Focuses on fragile elders with acute and chronic conditions.
NGRD 501. Primary Care Adult-Gerontology Nurse Practitioner I. 5 Units.
Introduces the role, professional responsibilities, and clinical practice of the primary care adult-gerontology nurse practitioner (AGNP). Focuses on primary health care concepts related to health maintenance and promotion of optimal wellness and common, acute illnesses of the adult. Per week: lecture 3 hours, practicum 6 hours. Prerequisites: NGRD 621, NGRD 622, NGRD 624, NGRD 625.

NGRD 502. Primary Care Adult-Gerontology Nurse Practitioner II. 6 Units.
Focuses on the AGNP role of health promotion and management of reproductive health and related conditions across the adult life span. Per week: lecture 3 hours, practicum 9 hours. Prerequisite: NGRD 501.

NGRD 503. Primary Care Adult-Gerontology Nurse Practitioner III. 8 Units.
Continues focus on the AGNP role of health promotion and management of patients with common chronic conditions across the adult life span. Per week: lecture 4 hours, practicum 12 hours. Prerequisite: NGRD 502.

NGRD 504. Primary Care Adult-Gerontology Nurse Practitioner IV. 8 Units.
Focuses on health maintenance and management of patients with complex acute and chronic conditions across the adult life span. Per week: lecture 4 hours, practicum 12 hours. Prerequisite: NGRD 503.

NGRD 505. Primary Care Adult-Gerontology Nurse Practitioner V: Practicum. 8 Units.
Emphasis on integrating prior learning and increasing clinical competence in primary care settings. Includes discussion and on-line certification practice testing in addition to final practicum. Per week: lecture 1 hour, practicum 21 hours. Prerequisite: NGRD 504.

NGRD 509. Primary Care Adult-Gerontology Nurse Practitioner: Skills Laboratory. 1 Unit.
Focuses on kinetic learning and practice of primary care clinical skills and procedures. An IP will be assigned at the end of each quarter until all skills laboratory activities for the clinical program are completed. Prerequisite: NGRD 501.

NGRD 510. Family Nurse Practitioner: Pediatrics and Adolescent. 5 Units.
Introduces the FNP student to basic primary health-care concepts of children, from birth to 21 years of age, related to health maintenance, promotion, and assessment. Emphasizes developmental milestones and anticipatory guidance. Introduces common pediatric diseases and management. Per week: theory 3 hours, clinical 6 hours.

NGRD 511. Family Nurse Practitioner I. 5 Units.
Introduces the role, professional responsibilities, and clinical practice of the primary care family nurse practitioner (FNP). Focuses on primary health-care concepts related to health maintenance and promotion of optimal wellness and common, acute illnesses across the life span. Per week: lecture 3 hours, practicum 6 hours. Prerequisites: NGRD 621, NGRD 622, NGRD 624, NGRD 625.

NGRD 512. Family Nurse Practitioner II. 6 Units.
Focuses on the FNP role of health promotion and management of reproductive health and related conditions across the adult life span. Per week: lecture 3 hours, practicum 9 hours. Prerequisite: NGRD 511.

NGRD 513. Family Nurse Practitioner III. 8 Units.
Focuses on health maintenance and management of patients with complex acute and chronic conditions across the adult life span. Per week: lecture 4 hours, practicum 12 hours. Prerequisite: NGRD 512.

NGRD 514. Family Nurse Practitioner IV. 8 Units.
Focuses on health maintenance and management of patients with complex acute and chronic conditions across the adult life span. Per week: lecture 4 hours, practicum 12 hours. Prerequisite: NGRD 513.

NGRD 515. Family Nurse Practitioner V: Practicum. 8 Units.
Emphasis on integrating prior learning and increasing clinical competence in primary care settings. Includes discussion and on-line certification practice testing in addition to final practicum. Per week: lecture 1 hour, practicum 21 hours. Prerequisite: NGRD 514.

NGRD 519. Family Nurse Practitioner: Skills Lab. 1 Unit.
Focuses on kinetic learning and practice of primary care clinical skills and procedures. An IP will be assigned at the end of each quarter until all skills laboratory activities for the clinical program are completed. Prerequisite: NGRD 511.

NGRD 531. Primary Care Pediatric Nurse Practitioner I. 4 Units.
Focuses on basic primary health-care concepts of children from birth through young adulthood related to health maintenance and promotion of optimal wellness; along with the assessment of physiological, psychological, sociocultural, developmental, and spiritual variables. Introduces and discusses the role, professional responsibilities, and clinical practice of the pediatric nurse practitioner as an advanced practice registered nurse. Prerequisites: NGRD 621, NGRD 622, NGRD 624, NGRD 625.

NGRD 532. Primary Care Pediatric Nurse Practitioner II. 6 Units.
Continues development of the PNP primary care role for children from birth through 21 years of age, related to assessment and management of common or acute illnesses, while incorporating health maintenance and prevention. Per week: theory 3 hours, practicum 9 hours. Prerequisite: NGRD 531.

NGRD 533. Primary Care Pediatric Nurse Practitioner III. 6 Units.
Continues development of the PNP primary care role in screening, assessment, and management of chronic diseases in children from birth through 21 years of age. Per week: theory 3 hours, practicum 9 hours. Prerequisite: NGRD 532.

NGRD 534. Primary Care Pediatric Nurse Practitioner IV. 6 Units.
Emphasizes the assessment and management of children from birth to 21 years of age with rare complex chronic health problems such as genetic syndromes and children with special needs. Per week: theory 3 hours, practicum 9 hours. Prerequisite: NGRD 533.

NGRD 535. Primary Care Pediatric Nurse Practitioner V. 6 Units.
Emphasizes the development of advanced clinical skills in conjunction with the advance practice role. Discusses health-care issues related to policy, ethics/culture, and research. Per week: theory 3 hours, practicum 9 hours. Prerequisite: NGRD 534.

NGRD 536. Primary Care Pediatric Nurse Practitioner VI: Practicum. 7 Units.
Focuses on integration and synthesis of knowledge and skills under the guidance of an expert preceptor, with the goal of working independently and collaboratively within a health-care team. Includes discussion and certification practice testing in addition to final practicum. Per week: practicum 21 hours. Prerequisite: NGRD 535.

NGRD 539. Primary Care Pediatric Nurse Practitioner: Skills Laboratory. 1 Unit.
This skills lab is designed to equip pediatric nurse practitioner students with common ambulatory care skills most often used in pediatric primary care clinics. An IP will be assigned at the end of each quarter until all skills lab activities for the clinical program are completed.

NGRD 541. Psychiatric Nurse Practitioner I. 4 Units.
Focuses on psychopharmacology principles and treatment in clinical management of psychiatric disorders and symptoms across the life span. Per week: theory 3 hours; clinical 3 hours. Prerequisites: NGRD 621, NGRD 622, NGRD 624, NGRD 625.
NGRD 542. Psychiatric Nurse Practitioner II. 6 Units.  
Focuses on mental health promotion and assessment of psychiatric disorders occurring in children, adolescents, adults, and families across the life span. Per week: theory 3 hours, clinical 9 hours. Prerequisite: NGRD 541.

NGRD 543. Psychiatric Nurse Practitioner III. 6 Units.  
Focuses on modalities of evidence-based treatment of children, adolescents, and family with common, chronic, and complex psychopathology; and on clinical experience in the assessment and management of these psychiatric disorders. Per week: theory 3 hours, clinical 9 hours. Prerequisite: NGRD 542.

NGRD 544. Psychiatric Nurse Practitioner IV. 6 Units.  
Focuses on modalities of evidence-based treatment of the adult, geriatric, and family with common, chronic, and complex psychopathology; and on clinical experience in the assessment and management of these psychiatric disorders. Per week: theory 3 hours, clinical 9 hours. Prerequisite: NGRD 543.

NGRD 545. Psychiatric Nurse Practitioner V. 6 Units.  
Focuses on modalities of evidence-based psychotherapies, as well as complementary and alternative approaches across the lifespan—with emphasis on select psychiatric disorders, community psychiatric populations, and brief solution-oriented psychotherapy. Prerequisite: NGRD 544.

NGRD 546. Psychiatric Nurse Practitioner VI: Practicum. 7 Units.  
Final clinical practicum with opportunity to develop autonomy while working with preceptors in clinical settings. Focuses on integration of learning from all prior psychiatric nurse practitioner courses and clinical experiences. Includes discussion and certification practice testing in addition to final practicum. Per week: theory 1 hour, practicum 18 hours.

NGRD 549. Psychiatric Nurse Practitioner VII: Skills Laboratory. 1 Unit.  
Focuses on practice of psychiatric care clinical skills and procedures.

NGRD 551. Adult - Gerontology: CNS I. 4 Units.  
Focuses on theoretical basis of advanced nursing practice for adult and aging clients related to health-care delivery and continuity of chronic illness care in vulnerable populations. Contents applied to selected client populations. Prerequisites: NGRD 621, NGRD 622, NGRD 625.

NGRD 552. Adult - Gerontology: CNS II. 4 Units.  
Focuses on the physiological basis of advanced practice nursing care of adult and aging clients with specific acute and chronic health conditions. Utilizes systems approach to the management of complex patient problems.

NGRD 553. Adult - Gerontology: CNS III. 4 Units.  
Focuses on issues relevant to the clinical nurse specialist caring for the adult and aging client. Includes topics and applications relevant to organization leadership, clinical reasoning, quality improvement, collaboration, consultation, finances, and other concepts necessary for CNS role implementation. Per week: theory 2 hours, clinical 6 hours.

NGRD 554. Adult - Gerontology: CNS Clinical Practicum. 2-8 Units.  
Experiential learning of the advanced practice role under the guidance of faculty and clinical experts in the area of adult and aging. Emphasizes the clinical competencies outlined by AACN. Per week: clinical hours variable. Prerequisite: NGRD 551, NGRD 552, NGRD 553.

NGRD 561. Pediatrics: CNS I. 4 Units.  
Focuses on theoretical basis of advanced nursing practice for the child and family related to health-care delivery and continuity of chronic illness care in vulnerable populations. Students apply content to selected client populations. Prerequisites: NGRD 621, NGRD 622, NGRD 625.

NGRD 562. Pediatrics: CNS II. 4 Units.  
Focuses on the pathophysiological basis of advanced practice nursing care of the child with specific acute and chronic health conditions. Utilizes a systems approach to the management of complex patient problems.

NGRD 563. Pediatrics: CNS III. 4 Units.  
Focuses on issues relevant to the clinical nurse specialist caring for the child and family. Includes topics and applications relevant to organization leadership, clinical reasoning, quality improvement, collaboration, consultation, finances, and other concepts necessary for CNS role implementation. Per week: theory 2 hours, clinical 6 hours.

NGRD 564. Pediatrics: CNS Clinical Practicum. 2-8 Units.  
Experiential learning of the CNS advanced practice role under the guidance of faculty and clinical experts in the area of the child and family. Emphasizes the clinical competencies outlined by AACN. Per week: clinical hours variable.

NGRD 571. Advanced Role for the Nurse Anesthetist I. 2 Units.  
Examines advanced practice registered nursing roles, with an emphasis on the role of the nurse anesthetist, issues relevant to nurse anesthesia practice, and wellness.

NGRD 572. Advanced Role for the Nurse Anesthetist II. 2 Units.  
Examines the regulation of nurse anesthesia practice, ethical and legal aspects of nurse anesthesia practice, the business of anesthesia, and the various roles of the nurse anesthetist. Prerequisite: NGRD 571.

NGRD 573. Scientific Foundations of Nurse Anesthesia Practice. 4 Units.  
Focuses on the application of principles of chemistry and physics to the practice of anesthesia.

NGRD 574. Anesthesia Equipment and Technology. 2 Units.  
Examines various equipment and technology utilized in anesthesia practice.

NGRD 575. Advanced Clinical Anatomy for the Nurse Anesthetist I. 2 Units.  
Emphasizes the clinical significance of selected respiratory, nervous, vascular, and musculoskeletal system anatomical structures and associated functional aspects as they relate to the practice of anesthesia.

NGRD 576. Advanced Clinical Anatomy for the Nurse Anesthetist II. 2 Units.  
Emphasizes the clinical significance of selected respiratory, nervous, vascular, and musculoskeletal system anatomical structures and associated functional aspects as they relate to the practice of anesthesia.

NGRD 577. Advanced Physiology for the Nurse Anesthetist. 4 Units.  
Examines selected aspects of advanced cell biology and systems physiology that are related to homeostasis and foundational to the practice of anesthesia.

NGRD 578. Advanced Physiology and Pathophysiology for the Nurse Anesthetist I. 4 Units.  
Examines normal human physiology and the causes, processes, and clinical manifestations of disease. Focuses on pathophysiology of the cardiovascular, pulmonary, musculoskeletal, and neuromuscular systems; and the anesthesia management of patients with associated disorders. Prerequisite: NGRD 577.
NGRD 579. Advanced Physiology and Pathophysiology for the Nurse Anesthetist II. 4 Units.
Examines normal human physiology and the causes, processes, and clinical manifestations of disease. Focuses on pathophysiology of the endocrine, gastrointestinal, hepatic, and renal systems; and the anesthesia management of patients with associated disorders. Also examines pediatric and obstetric physiology and pathophysiology relevant to the practice of anesthesia. Prerequisite: NGRD 577, NGRD 578.

NGRD 580. Advanced Health Assessment for Nurse Anesthetists. 4 Units.
Focuses on health history and physical assessment as they relate to the perioperative patient population. Includes invasive and noninvasive systems assessment and diagnostic methods. Principles and application of health promotion strategies for the CRNA population.

NGRD 581. Advanced Pharmacology for the Nurse Anesthetist I. 6 Units.
Applies principles of pharmacology to the practice of anesthesia, including the pharmacodynamics, pharmacokinetics, pharmacotherapeutics, and toxicology of inhalation anesthetics, intravenous anesthetics, opioid agonists and antagonists, non-opioid analgesics, neuromuscular blocking agents, and anesthetic adjuncts.

NGRD 582. Advanced Pharmacology for the Nurse Anesthetist II. 2 Units.
Applies principles of pharmacology to the practice of anesthesia, including the pharmacodynamics, pharmacokinetics, pharmacotherapeutics, and toxicology of local anesthetics and anesthetic adjuncts. Prerequisite: NGRD 581.

NGRD 583. Advanced Pharmacology for the Nurse Anesthetist III. 2 Units.
Applies principles of pharmacology to the practice of anesthesia, including the pharmacodynamics, pharmacokinetics, pharmacotherapeutics, and toxicology of autonomic agents and additional drugs of interest. Prerequisite: NGRD 582.

NGRD 584. Principles of Nurse Anesthesia Practice I. 4 Units.
Examines basic principles of anesthesia related to the perianesthetic management of patients undergoing surgical, diagnostic, and therapeutic procedures, culminating in the creation and implementation of a simulated anesthetic plan of care.

NGRD 585. Principles of Nurse Anesthesia Practice II. 4 Units.
Builds upon basic principles of anesthesia and introduces advanced concepts in the individualized perianesthetic management of patients with cardiovascular, pulmonary, and neurological disorders. Culminates in the creation and implementation of an anesthetic plan of care, including the diagnosis and treatment of simulated altered physiological responses coincident to the provision of anesthesia services and cardiovascular and/or pulmonary complications. Prerequisite: NGRD 584.

NGRD 586. Principles of Nurse Anesthesia Practice III. 4 Units.
Focuses on the individualized perianesthetic management of patients with various coexisting diseases across the lifespan, including neonatal, pediatric, obstetric, and geriatric patient populations. Prerequisite: NGRD 584, NGRD 585.

NGRD 587. Principles of Nurse Anesthesia Practice IV. 4 Units.
Focuses on the perianesthetic management of special patient populations and surgical subspecialties. Prerequisite: NGRD 584, NGRD 585, NGRD 586.

NGRD 590. Clinical Practicum I. 2 Units.
Introduces the clinical setting through preceptor experiences in the management of patients throughout the perianesthetic continuum. Prerequisite: NGRD 584, NGRD 585.

NGRD 591. Clinical Practicum II. 2 Units.
Preceptored clinical experience in the full scope of nurse anesthesia practice. Focuses on basic principles of anesthesia, including preparation of the anesthetizing area and successful creation and implementation of an anesthetic plan of care. Prerequisite: NGRD 590.

NGRD 592. Clinical Practicum III. 2 Units.
Preceptored clinical experience in the full scope of nurse anesthesia practice. Focuses on basic principles of anesthesia, emphasizing refinement of anesthetic management to improve patient safety and prevent iatrogenic complications. Prerequisite: NGRD 590, NGRD 591.

NGRD 593. Clinical Practicum IV. 2 Units.
Preceptored clinical experience in the full scope of nurse anesthesia practice. Focuses on predicting and preventing anesthetic management issues in cases with increasing complexity. Prerequisite: NGRD 590, NGRD 591, NGRD 592.

NGRD 594. Clinical Practicum V. 4 Units.
Preceptored clinical experience in the full scope of nurse anesthesia practice. Focuses on basic and advanced principles of anesthesia through the introduction of specialty rotations. Prerequisite: NGRD 590, NGRD 591, NGRD 592, NGRD 593.

NGRD 595. Clinical Practicum VI. 4 Units.
Preceptored clinical experience in the full scope of nurse anesthesia practice. Focuses on refinement of anesthetic management skills through continued participation in specialty clinical rotations. Prerequisite: NGRD 590, NGRD 591, NGRD 592, NGRD 593, NGRD 594.

NGRD 596. Clinical Practicum VII. 4 Units.
Preceptored clinical experience in the full scope of nurse anesthesia practice. Focuses on the development and implementation of anesthetic care plans using all major techniques for all surgical specialties. Prerequisite: NGRD 590, NGRD 591, NGRD 592, NGRD 593, NGRD 594, NGRD 595.

NGRD 597. Clinical Practicum VIII. 4 Units.
Preceptored clinical experience in the full scope of nurse anesthesia practice. Focuses on refinement of decision making with increased flexibility and speed. Prerequisite: NGRD 590, NGRD 591, NGRD 592, NGRD 593, NGRD 594, NGRD 595, NGRD 596.

NGRD 598. Clinical Practicum IX. 4 Units.
Culminating clinical course focusing on refinement and demonstration of requisite knowledge, skills, and competences necessary for entry into practice. Prerequisite: NGRD 590, NGRD 591, NGRD 592, NGRD 593, NGRD 594, NGRD 595, NGRD 596, NGRD 597.

NGRD 600. Teaching and Learning Theory. 3 Units.
Explores the components of the teaching-learning process, including traditional and current modalities. Provides opportunities for students to practice specific teaching strategies.

NGRD 601. Curriculum Development in Higher Education. 3 Units.
Emphasizes the basic principles of curriculum building (needs assessment, program planning, implementation, and evaluation) within the context of the purposes, trends, and issues of the undergraduate curriculum in higher education. Considers content in nursing science and physical therapy and related disciplines in the context of the philosophical base and nursing and physical therapy theory. Synthesizes knowledge and application through a curriculum development project.
NGRD 602. Assessment of Learning Outcomes. 3 Units.
Explores methods of assessing classroom and clinical performance in nursing. Assists students in developing measurement instruments that assess clinical reasoning. Discusses test administration, results analysis, and appropriate feedback. Addresses social, ethical, and legal issues related to evaluation, testing, and grading.

NGRD 603. Educational Leadership. 2 Units.
Focuses on development of leadership skills within the nursing education arena that facilitates quality education. Explores the processes of moving from a nurse faculty role to a leadership role with a perspective toward developing educational approaches that meet current and future needs of students and facilitate the development of nursing faculty. Learned leadership to advance nursing education by being involved with others, being authentic, and creating an environment for change.

NGRD 604. Teaching Practicum. 3 Units.
Assists the student in developing the ability to teach both theory and clinical components in the specialty area of choice. Emphasizes the nurse teacher as facilitator of learning. Integrates expected knowledge and skills related to educational methodology and clinical nursing. Practice teaching done in the classroom and clinical setting. Per week: theory 0 hours, practicum 9-12 hours. Prerequisite: NGRD 600.

NGRD 605. Clinical Practicum: Nurse Educator. 3 Units.
Focuses on in-depth clinical expertise in selected area of nursing practice. Considers strategies to use clinical expertise in facilitating future nursing students' learning.

NGRD 606. Nursing Administration Practicum. 1-8 Units.
Provides opportunities for the ongoing development and refinement of leadership capability in selected areas of nursing administration. Students showcase competencies in the synthesis and application of nursing, management, economic, and human resources theories to solve real-world issues of importance to the profession and the workplace. Per week: lecture 0 hours, practicum 3-30 hours. Prerequisites: NGRD 652; HADM 528.

NGRD 610. Master's Comprehensive Project. 2 Units.
Comprehensive project based on a PICOT question as appropriate for focus area of study. Prerequisites: NGRD 651, NGRD 658; Completion of clinical courses required for concentration area.

NGRD 621. Pharmacology in Advanced Practice I. 2 Units.
Principles of pharmacodynamics, pharmacotherapeutics, and pharmacokinetics. Overview of specific major drug classifications, discussion of the therapeutic use of drugs, and application to medical conditions. Addresses specific legal and ethical issues for advanced practice.

NGRD 622. Pharmacology in Advanced Practice II. 3 Units.
Focuses on specific major drug classifications, discussion of the therapeutic use of these drugs, and their application to medical conditions.

NGRD 623. Neonatal Pharmacology. 3 Units.
Advanced principles of neonatal pharmacotherapeutics, pharmacodynamics and pharmacokinetics. Additional overview of specific drug classifications within the neonatal population. Prerequisite NGRD 621.

NGRD 624. Advanced Health Assessment. 4 Units.
Focuses on advanced health assessment skills and knowledge necessary to successfully conduct a comprehensive history and physical throughout the lifespan. Emphasizes a wholistic plan of care, including health promotion strategies, while considering cultural and developmental variations of the patient.

NGRD 625. Advanced Clinical Pathophysiology. 4 Units.
Provides graduate students with an integrated understanding of normal human physiology and the most common pathological changes that occur throughout the lifespan. Focuses on using pathophysiological concepts to explain clinical observations and management.

NGRD 629. Special Topics. 1-4 Units.
Lecture and discussion of a current topic in graduate nursing bearing on the theory or practice of one aspect of the discipline. Specific content varies from quarter to quarter. May be repeated for additional credit.

NGRD 650. Advanced Role Development and Collaboration. 4 Units.
Focuses on transition to advanced practice and doctoral role. Topics include advanced practice nursing, theoretical bases, competencies, interprofessional collaboration, legal requirements, evidence-based practice, research, and professional writing.

NGRD 651. Theoretical Foundations for Evidence-Based Practice. 4 Units.
Focuses on the philosophical, theoretical, and scientific foundations of nursing practice and research. Examines evidence-based models and theories for use in clinical decision making, program development, and research design.

NGRD 652. Health-Care Systems Leadership. 4 Units.
Applies leadership theories and organizational models to complex professional and systems issues addressed by the advanced practice nursing leader. Focuses on development of leadership competencies for quality health care.

NGRD 653. Health Systems Policy Development and Advocacy. 4 Units.
Evaluates the impact of sociopolitical systems/processes within the context of current trends and issues affecting population health. Explores the impact of nursing on systems in the workplace, community, professional organizations, and government. Emphasizes strategic planning, policy formation, and advocacy.

NGRD 654. Social Determinants of Health. 4 Units.
Examines factors that contribute to disease prevention, health promotion, and well-being in vulnerable and diverse populations. Analyzes models, programs, and systems that address assessment, implementation, and evaluation for safe, equitable, culturally competent, and just health care.

NGRD 655. Health Systems Finance. 4 Units.
Focuses on health-care economics and finance—including evaluation of financial reports, business plans, and cost-benefit analyses of care-delivery systems. Explores strategies for optimizing fiscal resources to ensure safe patient care and best practices.

NGRD 656. Outcomes Assessment for Strategic Planning. 4 Units.
Examines and evaluates patient outcomes across the health-care system. Considers strategic planning, quality improvement, and information and technology systems that promote excellence in nursing practice and research.

NGRD 657. Intermediate Statistics. 4 Units.
Topics in intermediate statistics—including ANOVA, multiple regression, other multivariate statistical procedures, and interpreting computer output. Applies statistical analysis in translational research and research design.

NGRD 658. Nursing Research and Translational Science. 4 Units.
Provides a comprehensive understanding of scientific thinking, research methods, and translation science. Focuses on the research and evidenced-based practice (EBP) roles of scholarship for doctoral prepared nurse leaders. Prerequisite: NGRD 657.
NGRD 659. Professional Writing for Nurse Leaders. 4 Units.
Principles and methods of scholarly writing for research and evidence-based practice (EBP) dissemination.

NGRD 660. Integrative Leadership Case Study. 1-6 Units.
Focuses on integration of advanced concepts for DNP practice. Provides opportunity to extend learning from previous academic work to achieve the knowledge needed for the D.N.P. degree. Course may be processed as an IP but must be completed before beginning NGRD 667 DNP Proposal Development.

NGRD 664. Advanced Statistics. 4 Units.
Examines the Iowa Model of Research in Practice (IMRP) guidelines and process to systematically develop the approach for implementation of an evidence-based project to improve patient care quality. Includes identification of the EBP question, the search for evidence, and steps for effective translation of the project into the specific practice setting.

NGRD 666. DNP Proposal Development. 3 Units.
Examines the Iowa Model of Research in Practice (IMRP) guidelines and process to systematically develop the approach for implementation of an evidence-based project to improve patient care quality. Includes identification of the EBP question, the search for evidence, and steps for effective translation of the project into the specific practice setting.

NGRD 667. DNP Proposal Development. 3 Units.
The first of six courses in the development of the DNP project. Student focuses on identifying and describing in detail the project problem, forming the project guidance committee and project team in the practice setting, and beginning development of the DNP project paper and PowerPoint presentation. Prerequisite or concurrent*: NGRD 656, NGRD 657, NGRD 658, NGRD 667*.

NGRD 669A. DNP Practice Inquiry Project. 4 Units.
The second of six courses in the development of the DNP project. The third of six courses in the development of the DNP project. Student pilots the project in the practice setting, and continues developing the DNP project paper and PowerPoint presentation. Prerequisite or concurrent: NGRD 667, NGRD 669A*.

NGRD 669C. DNP Practice Inquiry Project. 2 Units.
The fourth of six courses in the development of the DNP project. The fifth of six courses in the development of the DNP project. Student monitors and analyzes the change project, evaluates key variables, implements adjustments as needed, identifies implications for future work. Student continues developing the DNP project paper and PowerPoint presentation. Prerequisite or concurrent: NGRD 669D.

NGRD 669F. DNP Practice Inquiry Project. 2 Units.
The last of six courses in the development of the DNP project. Student develops results for dissemination through publication and presentation, and completes the DNP project paper and PowerPoint presentation. Prerequisite or concurrent: NGRD 669E.

NGRD 679. Writing for Professional Publication. 4 Units.
Provides a review of fundamental writing skills appropriate for doctoral nursing students and a mentored writing experience that includes information, resources, and guidance to facilitate development of a publishable manuscript.

NGRD 680. Strategies for Advanced Theory Development in Nursing. 4 Units.
Engages the student in examining and applying the process of concept and theory development. Students analyze phenomena of interest, use selected strategies to construct conceptual relationships, and evaluate theoretical frameworks for development of nursing science. Prerequisite: NGRD 651.

NGRD 681. Philosophical Foundations of Nursing Science. 4 Units.
Examines the development of scientific thought and knowledge. Examines sources of knowledge and the assumptions underlying major approaches to scientific inquiry. Critiques these approaches in relation to knowledge development of nursing science.

NGRD 683. Mentored Research. 2 Units.
Student participates in the research process or engages in research activities guided by mentors. Experience contributes to ongoing development of the student's knowledge in research planning, design conduct, analysis, or dissemination. Research activity may continue beyond one quarter (IP eligible). Acceptance into the Ph.D. degree program in nursing.

NGRD 684. Quantitative Research Methods. 4 Units.
Examines quantitative research methods applicable to advancing and developing nursing science. Topics range from the formulation of research problems and questions to discussing and identifying complex designs and methods. Guides the student in development of a quantitative research proposal that focuses on an area of study that may serve as the initial step in conducting independent dissertation research. Prerequisite: Minimum of one doctoral-level statistics course, or equivalent.

NGRD 685. Qualitative Research Methods. 4 Units.
Overview of qualitative research methods. Emphasizes selected qualitative and mixed research methodologies specific to social, clinical, and health services research. Topics include theoretical bases for conducting qualitative research; research design; data gathering, including interviewing, observation, archival and historical research, and data analysis and writing. Introduces various approaches for integrating qualitative and quantitative methodologies.

NGRD 686. Applied Psychometrics for Health Care. 4 Units.
Advanced study of psychological tests and application in the health sciences. Includes review of basic statistics and an introduction to more advanced analyses important to test development and evaluation. Focuses on methods of test development, procedures for evaluating psychometric adequacy, and issues in the use and interpretation of test scores. Prerequisite: STAT 531 or equivalent.
NGRD 688. Nursing Science Seminar. 1 Unit.
Nursing phenomena. Focus varies according to national emphases in nursing research and focus areas of participants. Emphasizes critical examination of conceptual, theoretical, and methodological issues relative to the selective topic. Prerequisite: Doctoral standing or consent of instructor.

NGRD 689. Spiritual Care: Theory, Research and Practice. 4 Units.
Examines spirituality and religiosity in the context of health and illness, and provides or coaches others in providing spiritually sensitive health care. Emphasizes empirical, personal, and ethical sources of knowledge about spirituality and religiosity, using knowledge generated in health care, psychology, anthropology, and other fields.

NGRD 695. Advanced Qualitative Research. 4 Units.
Builds upon NGRD 685 Qualitative Research Methods. Focuses on an in-depth exploration of descriptive qualitative methods, including coding, with expansion and application of the method for dissertation design. Prerequisites: NGRD 685.

NGRD 696. Master's Thesis. 1-5 Units.
Completion of the requirements of the master's thesis. Prerequisites: NGRD 657; NGRD 658; approval of advisor.

NGRD 697. Dissertation Research. 1-8 Units.
Development, conduct, analysis, and defense of dissertation research. IP may be applied as needed, depending on the progress of the work. Prerequisite: Satisfactory completion of the Comprehensive Examination.

NGRD 699. Guided Study. 1-6 Units.
Opportunity for intensive study in a selected area of nursing, under faculty direction.