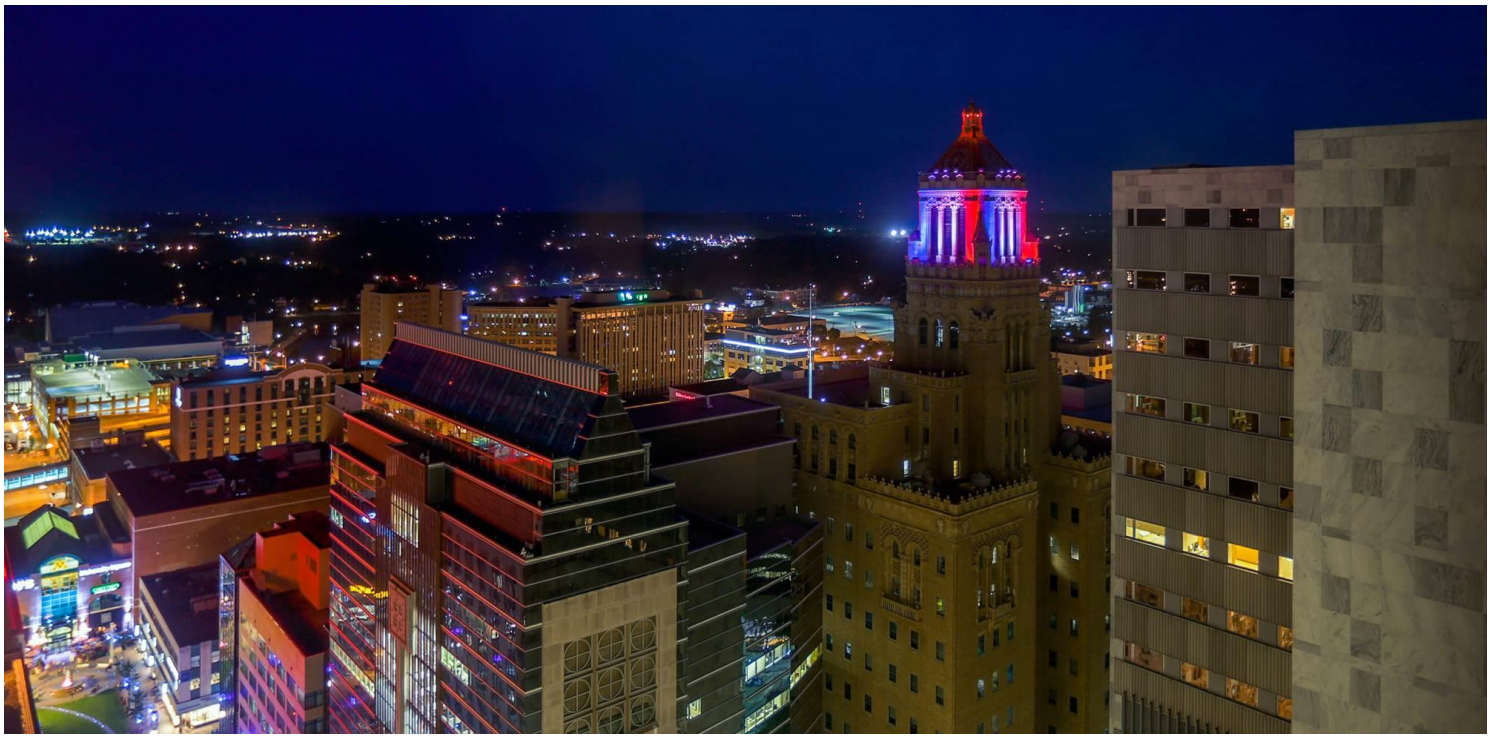
MAYO CLINIC

MAYO CLINIC SCHOOL OF HEALTH SCIENCES

DOCTOR OF NURSE ANESTHESIA PRACTICE PROGRAM

PROGRAM HANDBOOK



V.25.26

The information contained in this handbook applies to students matriculating on or after September 18, 2024

MAYO CLINIC

MAYO CLINIC

INTRODUCTION AND PROGRAM OVERVIEW

The education of nurse anesthetists at Mayo Clinic was started by Dr. William Worrall Mayo in 1889. The Mayo Clinic Doctor of Nurse Anesthesia Practice Program is the oldest, continuously operating program for nurse anesthesia in existence. Its graduates provide anesthesia services in every state of the U.S. and in many foreign nations.

The Mayo Clinic Nurse Anesthesia Program is within the Mayo Clinic School of Health Sciences (MCSHS) which is an accredited, private, nonprofit school of higher education specializing in allied health education. MCSHS operates within the Mayo Clinic College of Medicine and Science (MCCMS), which is the educational division of Mayo Clinic.

Nurse anesthesia practice at Mayo Clinic involves the management of anesthesia care by a Certified Registered Nurse Anesthetist (CRNA) within anesthesia care team supervision models including anesthesiologists and/or CRNAs.

The Mayo Clinic School of Health Sciences Doctor of Nurse Anesthesia Practice Program is designed for students who have already been awarded a baccalaureate degree. Students who complete the program are eligible to sit for the National Certification Exam (NCE).

PROGRAM ACCREDITATION

Mayo Clinic College of Medicine and Science, School of Health Science, Doctor of Nurse Anesthesia Practice (DNAP) Programs are accredited by the Council on Accreditation of Nurse Anesthesia Educational Programs. (October 2024 – October 2026)

Council on Accreditation of Nurse Anesthesia Educational Programs
10275 W. Higgins Rd., Suite 906
Rosemont, IL 60018-5603
224-275-9130

https://www.coacrna.org/

The Doctor of Nurse Anesthesia Practice degree is registered with the State of Minnesota Higher Education Coordinating Board. The Mayo Clinic College of Medicine and Science is also accredited by the North Central Association. (August 2013)

https://www.ohe.state.mn.us/

http://www.northcentralassociation.org/

MAYO CLINIC

PROGRAM INFORMATION

Program Philosophy

The Mayo Clinic Doctor of Nurse Anesthesia Practice program provides enhanced educational experiences in the basic and clinical sciences of anesthesia, management studies, investigational theory, leadership, evidence-based practice, and most importantly, advanced clinical practice. The program is dedicated to educating a select group of highly professional individuals as Student Registered Nurse Anesthetists (SRNAs) to provide excellent, high level anesthesia care and become leaders in the profession.

The Mayo Clinic DNAP program reflects the realization that the scope of nurse anesthesia is rapidly expanding, the body of anesthesia knowledge continues to grow at an exponential rate and anesthesia providers who have advanced knowledge and experience effectively contribute to quality patient care. As such, the DNAP program builds on the foundation of knowledge and experience that individuals have gained in their role as acute care nurses.

Mayo Clinic recognizes that all post-secondary education is voluntary and depends significantly on self-direction and motivation. Program candidates must demonstrate these qualities as well as high moral and ethical behavior, a commitment to society's health care, and a desire to participate in a clinically oriented learning environment. They are expected to have an academic background and a record of achievement that points to success in graduate studies.

The program exists in a secular, humanistic, educational environment. Candidates are selected without regard to race, color, creed, gender, gender identity, age, national origin, marital status, sexual orientation, disabilities, or veteran status. Mayo Clinic College of Medicine and Science is an affirmative action and equal opportunity educator and employer.

The faculty is made up of CRNAs, physicians, nurse educators, basic scientists and experts in their field who enhance the DNAP curriculum. The faculty direct and guide both the didactic and clinical portions of the program in an integrated system of practice and education. Faculty members are chosen based on their ability to act as a resource and to provide students with professional and competent guidance.

SRNAs provide anesthesia care under the supervision of qualified anesthesia providers. Students are given the opportunity for increased independence as they advance their ability to provide anesthesia within the scope of advanced nurse anesthesia practice.

MAYO CLINIC

Outcome Criteria

Upon completion of the Doctor of Nurse Anesthesia Practice Program, students will have completed a curriculum that provides the knowledge and skills to allow the graduate to:

1. Maintain patient safety.
2. Protect patients from iatrogenic complications.
3. Position or supervise the positioning of patients to prevent injury.
4. Perform a pre-anesthetic assessment and formulate an anesthesia care plan for patients to whom they are assigned to administer anesthesia.
5. Use a variety of current anesthesia techniques, agents, adjunctive drugs, and equipment while providing anesthesia.
6. Use conceptual and analytical skills to evaluate the links between practice, organizational, population, fiscal, and policy issues.
7. Conduct a comprehensive and appropriate equipment check.
8. Identify and take appropriate action when confronted with anesthetic equipment-related malfunctions.
9. Administer general anesthesia to patients of all ages, population, and physical conditions for a variety of surgical and medically related procedures.
10. Provide anesthesia services for trauma and emergency cases.
11. Administer and manage a variety of regional anesthetics.
12. Interpret and utilize data obtained from noninvasive and invasive monitoring modalities.
13. Design, deliver, and evaluate evidence-based care to improve patient outcomes.
14. Calculate, initiate, and manage fluid and blood component therapy.
15. Recognize and appropriately respond to anesthetic complications that occur during the perioperative period.
16. Utilize universal precautions and appropriate infection control measures.
17. Function as a resource person for airway and ventilator management of patients.
18. Serve as a leader or member of a cardiopulmonary resuscitation team and possess advanced cardiac life support (ACLS) certification.
19. Possess pediatric advanced life support (PALS) certification.
20. Participate in quality management activities and possess knowledge of principles of business, finance, and health policy to function in a leadership role.
21. Possess an understanding of knowledge translation and evidence-based practice principles that will allow.
22. Analyze and utilize health information systems and technology to improve clinical practice.
23. Function within appropriate legal requirements as a registered professional nurse, accepting responsibility and accountability for practice.
24. Demonstrate personal and professional integrity and the ability to interact on a professional level with intraprofessional and interprofessional colleague groups
25. Effectively utilize verbal, nonverbal, and written communication with individuals influencing patient care and during the delivery of perianesthetic care.
26. Engage in the professional education of others.
27. Possess the knowledge to complete a Scholarly Works Doctoral Project including the ability to: identify areas in which practice improvement and/or enhanced knowledge is needed, gather, and evaluate evidence, identify key stakeholder groups, employ leadership theories to execute change, evaluate outcomes, and disseminate findings via oral and poster presentations and manuscript development.
28. Participate in continuing educational activities to acquire new knowledge and improve practice.
29. Demonstrate knowledge of wellness and chemical dependency in the anesthesia profession through completion of content in wellness and chemical dependency.
30. Possess the knowledge to critically evaluate research evidence to improve patient outcomes and make decisions utilizing best practice methods.
31. Provide culturally competent perianesthetic care throughout the anesthesia continuum, with the ability to recognize the unique concerns of all patient populations.
32. Pass the National Board of Certification and Recertification for Nurse Anesthetists (NBCRNA) certification examination in accordance with NBCRNA policies and procedures.

MAYO CLINIC

Program Benchmarks and Tuition Information

Benchmark	2020	2021	2022	2023	2024	2025
Number of enrollments	26	26	26	26	26	28
Number of graduates	26	26	26	26	25	28
Attrition	0%	0%	0%	0%	3.8%	0%
Employment within six months	96%	100%	100%	100%	96%	100%
National Certification Exam first time pass rate	82%	73%	81%	81%	80%	89%
National Certification Exam repeat pass rate within 60 days of graduation	100%	96%	100%	96%	92%	96%
Tuition	Doctor of Nurse Anesthesia Practice (DNAP) year 2024-2025 = $762.00 per semester credit. NOTE: 87/116 DNAP semester credits are currently tuition billable.					
Total program tuition/fees	Currently there is no charge for clinical credits. All DNAP didactic credits are tuition billable. Projected total tuition for the incoming DNAP Class of 2028 is currently $777.00/semester credit = $66,822; estimated fees = $1850.00; estimated total book cost = $500.00.					
Current tuition/fees	*Cost per semester credit is not frozen for the entire length of the program and may be subject to change on a yearly basis. Contact program for most recent cost estimate.*					

MAYO CLINIC

Application Information

Admission to the program is through the Mayo Clinic School of Health Sciences. All applications must be submitted by June 1st for admission to the class beginning in September the following year.

Applications are accepted between April 1st and June 1st. Interview decisions are made after the application period has ended. The program's Selection Committee does not review incomplete applications.

Applicants are initially screened based on their overall academic performance, application essay(s), work experience, references, and proven ability in a minimum of 30 semester credits of science courses. There may be additional standardized exams required and specific information will be published on the program website. Those selected as initial candidate will take part in an interview with Mayo Clinic faculty at the applicant's expense. The interview process for a candidate may extend over an entire day.

All appointments are made by the Mayo Clinic School of Health Sciences. Applicants are notified of final selection decisions within six weeks after interviews are conducted.

Registered nurse appointees must successfully complete a review of health history and if needed, further exams at Mayo Clinic will be completed. Incoming students must complete two background checks: the MN background check and the national background check. Drug testing may be required for admission.

Please refer to the program web site for additional admission information and on-line application process.

https://college.mayo.edu/academics/health-sciences-education/doctor-of-nurse-anesthesia-practice-program-minnesota/

MAYO CLINIC

Admission Criteria

Admission to the Doctor of Nurse Anesthesia Practice program requires:

- Current and unencumbered Minnesota RN license upon enrollment.
- Baccalaureate degree in nursing or a suitable biological science from an accredited institution.
- Cumulative and Science GPA of 3.25 or greater on a 4.00 scale.
    - Special GPA consideration may be requested if extenuating circumstances impacted cumulative and science GPAs; special consideration requires a written request to the Program Director. Contact the program for more information.
- 30 basic science semester credits.
- Completion of undergraduate courses in:
    - Chemistry (organic preferred)
    - Physiology
    - Anatomy
- Minimum of two years of acceptable clinical experience in a critical care setting at the time of the program start. Acceptable critical care experience includes:
    - Cardiac intensive care
    - Medical intensive care
    - Surgical intensive care
    - Neonatal intensive care
    - Pediatric intensive care
    - Transplant intensive care
    - Other types of approved intensive care practice nursing specialties providing experience with ventilators, drips, ECG monitoring, and invasive line monitors. Contact the program office to determine if ICU requirements are met.
- Two complete written letters of reference from:
    - Advanced practice provider (NP/PA) or physician (ICU work-related; colleague who directs the care team with whom the applicant works)
    - Nursing manager/supervisor (current ICU work manager)
- Completion of program application, via the online portal. See the program web site for the link to online application.
- Official transcripts for all colleges attended. See the program website for information on transcript submission.

MAYO CLINIC

ACADEMIC POLICIES/GUIDELINES

Evaluation

SRNAs receive formal evaluations at regular intervals during the educational program and all results of evaluations are shared with the student. Students will be informed prior to the completion of a clinical rotation if major deficiencies are present that would jeopardize successfully completing the rotation. In such cases the core faculty will participate in constructing and providing interim objectives and evaluations. The program is also designed to encourage informal and formal feedback and counseling throughout the entire educational process.

SRNAs are assessed using a multifactorial system including evaluation on performance in the following areas:

- Written and oral exams
- Anesthetic management
- Technical skills
- Clinical preparedness
- Basic sciences
- Assessment, preparation and planning related to the anesthesia process
- General aspects of implementation of anesthesia
- Specialty procedures
- Anesthesia equipment
- Safety measures
- Professional and ethical behavior

SRNAs also participate in self-evaluation, evaluations of individual clinical and didactic faculty, course evaluations, and clinical rotation evaluations.

Grading

To quantify knowledge and progress, students receive grades for their work. Grades are based on the four-point system, where A = 4 (100-90%), B = 3 (89-80%), C = 2 (79-70%), F = 0 (<70%). PASS/FAIL (P/F) is awarded for select courses. P/F is not calculated in the GPA unless a FAIL is received. Students may be awarded additional quality points for exceptional performance on an examination, written assignment, or clinical evaluation.

Eighty percent (80%) is the lowest acceptable grade. If a student does not earn at least 80% or a PASS, the letter grade F will be given. The letter grade F requires that the course must be repeated, and the Disciplinary Actions Policy enforced. Incomplete grades require arrangement with the appropriate faculty member and/or the Program Director to make up the unfinished course work. The Program Director or instructor may require a written contract with the student that specifies the work to be completed and a required completion date. A degree will not be awarded if there is an incomplete on the transcript. A GPA of ≥ 3.00 is required for graduation. Students will be placed on academic probation any time the cumulative GPA falls below 3.0.

Grievances

Students who feel their case has not been handled satisfactorily by program personnel may use the grievance procedure described in the Mayo Clinic School of Health Sciences Policy Manual.

MAYO CLINIC

Graduation Requirements

- Successful completion of all clinical and academic requirements prescribed by the Educational Standards and Guidelines of the Council on Accreditation (COA) of Nurse Anesthesia Educational Programs and as determined by the program faculty.
- A minimum overall program grade average (GPA) of 3.0 on a 4.0 scale.
- Achievement of established required scores on mandatory comprehensive examinations (I and II). Specific information on required scores and scheduling of examinations will be shared with the class in years 3 and 4 of the program.
- Successful completion of the DNAP project, which includes the following activities (this list may not be inclusive)
    - Dissemination through an oral presentation to a panel of peers and instructors and submission of a manuscript deemed suitable for publication in a peer-reviewed journal.
    - External dissemination through at least one of the following methods: An oral and/or poster presentation at a Nurse Anesthesia related venue.
- Acceptable clinical performance, according to the Mayo Clinic Department of Anesthesiology's standards of care and the DNAP Program's Clinical Grading Process. All clinical experiences must be passed and a minimum clinical GPA of 3.0 must be achieved.
- Completion and submission of required care plans, clinical experience reports, committed time reports, evaluations and other written assignments and reports.
- Certification in ACLS and PALS must be current throughout the program and extend past graduation.
- Maintenance of Minnesota registered nurse license throughout the program.
- Payment of the appropriate NBCRNA fee required to sit for the National Certification Exam (NCE).
- Completion of any time extensions necessitated by leaves of absence, probation, repeat of clinical rotation or academic course, extended illness, or other approved absences, which will result in a revised graduation date on official transcripts and NCE eligibility.
- Completion of the Nurse Anesthesia Program Checkout Procedure.

Self-Evaluation Examination (SEE)

Students are required to take the Self Evaluation Examination (SEE) at two designated times during the senior year. Students are required to obtain a pre-determined score as determined by the program. Not achieving this score requires participation in individualized mentoring faculty members. The first two SEE Exam testing fees are included in program tuition. Students wishing to take a third or subsequent exam are responsible for the cost of the testing fees.

Academic Credit Transfer Policy

No transfer credits from other nurse anesthesia programs are accepted.

Academic Calendar

The DNAP Program starts mid-September with on-campus attendance scheduled three to four days per week for the first nine months. The last thirty months require on-campus attendance scheduled five days per week consisting of didactic and clinical education.

Attendance

Attendance is required for all clinical and didactic activities during the DNAP program. Activities include in-person and virtual lectures, seminars, laboratory sessions, small group discussions, clinical conferences, examinations,

and a variety of clinical learning experiences. The didactic and clinical activities are provided to ensure that the student receives a wide range of learning experiences. These experiences are designed to meet or exceed the minimum requirements established by the Council on Accreditation (COA) for Nurse Anesthesia Educational Programs.

Attendance at all aspects of the program is the student's responsibility. Attendance is required at all didactic lectures and an attendance record is maintained. Exceptions to attendance include approved absences or when required clinical activities preclude such attendance. Students are responsible for all subject material presented.

Holidays

The program observes the following holidays: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving, and Christmas.

Leave Of Absence

Leave of Absence may be granted to students for parental leave, illness, military duty, jury duty or when significant extenuating personal circumstances are present. Leave of absence time can result in program extension. Program Directors have discretion to approve or deny requests. A Program Director must evaluate the individual merits of each request and consider the ability of the program to deliver the full content of curriculum while meeting the individual student's needs.

Leave of absence requests for non-compelling reasons will typically be denied. One consideration in determining non-compelling reasons will be the amount of control the student has over the situation (i.e., could the situation have been avoided). Examples of non-compelling reasons include but are not limited to vacation/travel, employment, and pursuit of personal interests.

Students should alert their Program Director as early as possible about needed leaves or situations which may lead to an extended time off request. Students can submit extended time off requests to the Program Director along with supporting documentation detailing the reason for the request. Program Directors are encouraged to consult with their Associate Dean, Administrator or Operations Manager regarding leaves.

Program Extension

The Doctor of Nurse Anesthesia Practice program requires 39 months of intensive study coupled with extensive clinical experience. Extension of the program will be required of any student who does not fulfill academic course work, stated clinical and didactic requirements, record keeping, or obtaining minimum case requirement in any of the categories established by the COA. Any combination of leaves/absences that exceeds the program allotted Student Time Off (STO) during the clinical phase of the program will also necessitate extension of the program. Leaves could result in suspension of benefits during the leave.

Time Away

During the didactic phase of the program, time away is provided for holidays and structured breaks. During the clinical phase of the program, students receive 30 days of STO to use for scheduled or unscheduled time off. STO gives students the opportunity and responsibility to manage their time away from the program. Students are encouraged to utilize all available STO and unused STO cannot be redeemed for payout. All students are expected to attend lectures, seminars, laboratory sessions, small group discussion sessions, conferences, and clinical learning experiences.

MAYO CLINIC

DOCTOR OF NURSE ANESTHESIA PRACTICE PROGRAM TECHNICAL STANDARDS

The Doctor of Nurse Anesthesia Practice Program is committed to diversity and educating students who will make the population of health care professionals a true representative of our diverse community.

The following technical standards are not intended to deter any candidate for whom reasonable accommodation will allow the fulfillment of the complete curriculum. Program applicants and admitted students with disabilities are confidentiality reviewed to determine whether there are any reasonable accommodations that would permit the individual to satisfy the program standards. The following technical standards are required of all students enrolled in the Doctor of Nurse Anesthesia Practice Program:

Theme	Essential Functions	Example of Required Activities (Not all inclusive)
Observation	Candidates must be able to observe demonstrations and participate in hands-on learning in the classroom, workshop, simulation center and clinical settings. Candidates must be able to acquire information from written documents and the electronic health record.	Reading small, fine print in all environments, including low-light conditions for accurate patient identification. Recognize and assess patient changes in mood, activity, cognition, verbal, and non-verbal communication. Detect and interpret changes in monitoring alarms and equipment. Obtain information from demonstration and experiments in various settings, including: the skills lab, the simulation center, inpatient and outpatient patient settings and the operating room. Assess a patient and evaluate findings accurately.
Communication	Candidates must be able to communicate effectively, sensitively, and efficiently with patients, families, health care professionals and faculty. Candidates must be able to acquire the patient's medical history in a timely manner, interpret non-verbal information, and establish a therapeutic rapport with patients. Candidates are also required to record information accurately and clearly; and communicate efficiently in English with other health care professionals.	Sufficiently communicate in English to retrieve information from literature, computerized databases, and lectures to communicate concepts on written exams and patient charts. Communicate effectively and efficiently with patients, students, staff, faculty, and all members of the healthcare team during all learning experiences. Fluently read and comprehend the English language necessary to understand written and/or electronic orders and understand any signage related to safety and patient care. Interact with healthcare faculty, patients, and family in person and via writing.

Motor Skill & Mobility	Candidates must have sufficient motor functions that they are able to execute movements required to provide general care and treatment to patients in all health care settings within a specified amount of time.	Full range of motion allowing for gross movements within confined spaces such as bending, stooping, squatting, lifting, and pushing. A candidate must be able to negotiate patient care environments and must be able to move self/patients between settings, such as clinic, classroom building, and hospital. A candidate must be able to execute motor activities reasonably required to provide general care, to perform direct laryngoscopy, arterial and venous line placement, and performance of peripheral and central nerve blocks, anesthesia gas machine operation and troubleshooting, and to provide emergency and urgent treatment to patients such as flexible bronchoscope intubation and therapies of the difficult airway algorithm. Examples of emergency treatment reasonably required of a nurse anesthetist are cardiopulmonary resuscitation (CPR) and the administration of intravenous medication. Fine motor skills, steady hand function and hand-eye coordination. Perform basic life support, transfer and position patients and re-position self around patients. Position and operate typical equipment found in the health care environment (i.e., oxygen tanks, wheelchairs, imaging equipment, etc.) Must be able to elicit information from patients by palpation, auscultation, percussion, and other diagnostic maneuvers. Many surgical procedures essential to training may last for 3 or more hours. Students may be required to remain in a relatively fixed position for the entirety of the procedure with minimal rest or breaks. In emergency situations, patients may need to be moved or resuscitated, and the student may be in situations that necessitate short periods of bending, lifting or partial lifting, reaching, squatting, or straining. Within clinical rotations, students may be required to cover large areas of space (different patient-care floors, different wings, or sections within institutional building structures). They must be able to transport themselves and patients from one location to another in a timely fashion to facilitate patient care responsibilities and to receive educational training, such as during rounds.

Interpersonal Behavior & Social Skills	Candidates must exhibit the emotional stability required for full utilization of their intellectual abilities, which includes, but is not limited to, the exercise of good judgment, and the prompt completion of responsibilities associated with the care of patients. Candidates are expected to exhibit integrity, honesty, professionalism, compassion, and display a spirit of cooperation and teamwork.	Tolerate physically, mentally, and emotionally demanding workloads, function effectively under stress, adapt to changing environments, display flexibility and learn to function in the face of uncertainties inherent in the clinical problems of patients. Express compassion, integrity, concern for others, interpersonal skills, interest, and motivation when working with patients, staff, and faculty. Manage apprehensive patients with a range of moods and behaviors in a tactful, culturally sensitive, congenial, personal matter so as not to alienate or antagonize them. Exercise good judgment, promptly complete all responsibilities attendant to the diagnosis and care of patients, and develop mature, sensitive, and effective relationships with patients and other healthcare personnel. Accept feedback and respond by appropriate modification of behavior. Show genuine empathy, understanding, interest and professionalism while interacting with patients. Because the nature of nurse anesthesia education is based on a mentoring process, candidates are expected to be able to accept criticism and respond by appropriate modification of behavior. Students are responsible to ensure that they arrive fit for duty, which is defined as being in sound emotional, physical, and mental health to provide safe anesthesia care. Students must be available to meet when sessions are available for the mastery of the curriculum objectives. This may include evening, night, and weekend obligations.

Cognitive & Intellectual	Candidates must be able to assimilate detailed and complex information presented in both didactic and clinical coursework. Candidates are expected to possess the ability to measure, calculate, reason, analyze, synthesize, and transmit information. Candidate must also command the ability to think critically, possess problem-solving and organizational skills necessary in the classroom, laboratory, and clinical setting.	Learn through a variety of methods including, but not limited to, classroom instruction, small group, problem-based learning groups, team and collaborative activities, individual study, preparation, and presentation of reports simulations, and using technology. Organize time independently and manage multi-faceted demands and schedules. Comprehend three-dimensional relationships and understand spatial relationships of anatomic structures. During the clinical portion of the program, several mandatory rotations require extended hours, with start times as early as 5:00 am. Evening, on-call and weekend shifts are common and may extend into 12-to-16-hour days. As a result, students must be able to perform capably and competently physically and psychologically with moderate degrees of sleep deprivation
Environment	Candidate must have sensory and physical well-being that will allow an individual to tolerate occasional distressing and/or disturbing conditions that may be present in a clinical setting.	Tolerate smells associated with disease states and infections. Tolerate sights such as open incisions, invasive procedures during code situations and injuries/deformities. Acclimate to various noises which may range from distractions to annoyances. Emotional strength to understand patient and/or family disturbances, death and dying. Function effectively (by completing the given task) in emergent and stressful situations.
Computer & Technological Skills	Candidate must be able to utilize electronic technology in didactic, laboratory and clinical environment.	Demonstrate basic computer functions such as data entry, printing, and ability to function in multiple screens simultaneously. Learn and understand the software technology utilized in the health care setting. Demonstrate the ability to fully utilize computer equipment such as keyboard, mouse, and bar-code scanner necessary to process orders and document any discrepancies.

Problem Solving/ Organizational Skills	Candidates must think critically and demonstrate problem-solving and organizational skills necessary in providing quality patient care.	Understand the relationship between patient health status/condition and requested actions. Demonstrate the skills necessary to prioritize especially in emergent situations. Effectively troubleshoot/adapt when necessary. Understand additional resources available, where to locate them and how to use them.
Ethics	Candidates must adhere to Mayo Clinic's mission, vision, and value statements regarding patient care.	Recognize the importance of performing duties in accordance with policies and standard operating procedures. Accept the expectation of maintaining patient confidentiality, both from a legal standpoint and a humanitarian perspective. Understand the Patient Bill of Rights and perform care in a manner that exhibits respect, dignity and empathy for the patient and family members.

MAYO CLINIC

DOCTOR OF NURSE ANESTHESIA PRACTICE CURRICULUM SCHEDULE

The Doctor of Nurse Anesthesia Practice Program requires full-time study for 39 months. The program meets the Standards and Guidelines for Schools of Nurse Anesthesia published by the Council on Accreditation of Nurse Anesthesia Education Programs.

SRNAs must successfully complete the following course requirements:

First Year

TOTAL ACADEMIC CREDITS YEAR I - SEPTEMBER–JUNE			
COURSE	TITLE	CREDITS*	GRADING
NA 6001	Curriculum and Instruction for Nurse Anesthesia	1	S
NA 6003	DNAP Program Orientation	2	S
NA 6421	Statistics and Research Methods	3	S
NA 6328	Clinical Observation	1	P/F
NA 6140	Evidence-Based Practice	3	S
NA 6130	Organizational and Systems Leadership	3	S
NA 6501	Scholarly Project I - Planning	2	S
NA 6150	Health Policy/Quality Health Delivery	3	S
NA 6120	Healthcare Informatics	3	S
NA 6400	Clinical Anatomy I	3	S
NA 6028	Introduction to Clinical Anesthesia	3	S
NA 6021	Advanced Principles of Pharmacology I	4	S
NA 6206	Advanced Comprehensive Physical Assessment	2	S
NA 6007	Advanced Medical Physiology	3	S
		36	

*Tuition billing is dependent on the quarter in which the course starts; attempts are made to ensure that billing is spread out evenly over the course of the academic year.

Grading: S = Standard (A, B, C, F), P/F = Pass/Fail

MAYO CLINIC

Second Year

TOTAL ACADEMIC CREDITS YEAR II - JULY-JUNE			
COURSE	TITLE	CREDITS*	GRADING
NA 6020	Fundamentals of Anesthesia	2	S
NA 6025	Advanced Principles of Pharmacology II	2	S
NA 6026	Inorganic, Organic, Biochemistry for Anesthesia	2	S
NA 6027	Physics for Anesthesia	2	S
NA 6205	Advanced Pathophysiology	3	S
NA 6050	Anesthesia Across the Lifespan	3	S
NA 6061	Anesthesia Crisis Resource Management	3	S
NA 6220	Basic Principles of Nurse Anesthesia	3	S
NA 6401	Clinical Anatomy II	2	S
NA 6502	Scholarly Project II - Implementation	3	P/F
NA 6503	Scholarly Project III - Analysis	3	P/F
		28	

*Tuition billing is dependent on the quarter in which the course starts; attempts are made to ensure that billing is spread out evenly over the course of the academic year.

Grading: S = Standard (A, B, C, F), P/F = Pass/Fail

MAYO CLINIC

Third Year

TOTAL ACADEMIC CREDITS YEAR III - JULY-JUNE			
COURSE	TITLE	CREDITS*	GRADING
NA 6310	Advanced Principles of Nurse Anesthesia I	2	S
NA 6053	Regional Anesthesia/Pain	3	S
NA 6100	Professional Dimensions	2	S
NA 6203	Comprehensive Anesthesia Review	1	P/F
NA 6210	Case Conferences	3	S
NA 6315	Advanced Principles of Nurse Anesthesia II	2	S
NA 6504	Scholarly Project IV - Conclusions	3	P/F
		16	

*Tuition billing is dependent on the quarter in which the course starts; attempts are made to ensure that billing is spread out evenly over the course of the academic year.

Grading: S = Standard (A, B, C, F), P/F = Pass/Fail

MAYO CLINIC

Fourth Year

TOTAL ACADEMIC CREDIT YEAR IV - JULY-DECEMBER			
COURSE	TITLE	CREDITS*	GRADING
NA 6200	National Certification Exam (NCE) Preparation	4	S
NA 6505	Scholarly Project Dissemination	3	S
		7	

*Tuition billing is dependent on the quarter in which the course starts; attempts are made to ensure that billing is spread out evenly over the course of the academic year.

Grading: S = Standard (A, B, C, F), P/F = Pass/Fail

Total Didactic Credits: 87

MAYO CLINIC

Clinical Experiences

Students rotate through general and specialty specific clinical rotations. Clinical assignments may be adjusted based on case numbers, in the interest of students obtaining optimal educational experiences.

TOTAL ACADEMIC CREDIT - CLINICAL EXPERIENCES			
COURSE	TITLE	CREDITS*	GRADING
NA6300	Clinical Orientation & Competencies	1	S
NA6301	Clinical Anesthesia: Jacobsen	2	S
NA6302	Clinical Anesthesia: Eisenberg 2	2	S
NA6304	Clinical Anesthesia: Eisenberg 1	2	S
NA6305	Clinical Anesthesia: Central	2	S
NA6306	Clinical Anesthesia: Multispecialty	2	S
NA6320	Clinical Anesthesia: Cardiovascular	2	S
NA6321	Clinical Anesthesia: Neuro	2	S
NA6322	Clinical Anesthesia: EENT/Oral	2	S
NA6323	Clinical Anesthesia: Obstetrics	2	S
NA6324	Clinical Anesthesia: Pediatrics	2	S
NA6325	Clinical Anesthesia: Off-Campus Rotation	2	S
NA6329	Clinical Anesthesia: Thoracic/Musculoskeletal	2	S
NA6331	Advanced Practicums & Advanced Clinical Experience	4	S
		29	

Grading: S = Standard (A, B, C, F), P/F = Pass/Fail

MAYO CLINIC

DIDACTIC COURSEWORK

NA 6001 Curriculum and Instruction for Nurse Anesthesia (1 Credit)

This course introduces concepts related to teaching and learning, generational influences in the workplace, change theory, and professional feedback delivery. There is an emphasis on the tools and techniques needed to prepare professional presentations.

NA 6003 DNAP Program Orientation (2 credits)

This course provides a broad orientation to the professional practice of nurse anesthesia. Incorporated into this course is an orientation to the Mayo Clinic DNAP program and discussions of professional adjustments and role definitions. An introduction to the technology students' needs to access and use during their course of study will also be an emphasis of this course. The technology identified and instruction provided to the student will be continually re-evaluated and enhanced as new technology becomes available.

NA 6007 Advanced Medical Physiology (3 Credits)

Medical Physiology focuses on advanced concepts of homeostasis and the basic physiologic control systems, cell physiology, excitable membranes, and the following physiologic symptoms: nervous, musculoskeletal, renal, cardiovascular, endocrine and respiratory systems. Additional instruction includes the mechanics of breathing, ventilation, perfusion, acid-base balance, digestion and metabolism, and hypoxemia providing the scientific underpinnings necessary for the science of nurse anesthesia practice.

NA 6020 Fundamentals of Anesthesia (2 Credits)

This course provides instruction on basic principles of safety concerns associated with anesthesia and the operating room, including radiation, laser, electricity, evidence-based infection and environmental safety and an introduction to identify the fundamental anesthetic cares related to broad pathophysiologic conditions. This course will provide the student with the knowledge base from which to develop the anesthetic care of patients with specific diseases and for specific procedures.

NA 6021 Advanced Principles of Pharmacology I (4 Credits)

This course provides a comprehensive introduction to the pharmacologic agents. Students will be challenged to accurately select and dose medications based on pharmacologic principles, patient assessment, physiologic considerations. Various instructional formats will be used for this course including: (1) Student pre-work with online modules and reading, (2) In-class group case studies/discussion, (3) didactic lecture, and (4) Evidence based oral group presentations.

NA 6025 Advanced Principles of Pharmacology II (2 Credits)

This advanced course focuses attention on the drugs and drug categories used in anesthesia. Scholarly discussion and evidence-based presentations of the chemical, genomic and physiological reasons for their effectiveness, ineffectiveness, side effects and their clinical application will be used to enhance student learning in these areas.

NA 6026 Inorganic, Organic and Biochemistry for Anesthesia (2 Credits)

Chemistry for Nurse Anesthesia provides the basis of understanding and analyzing chemical concepts utilized so often in the practice of anesthesia, including chemical bonding and basic chemical reactions, gas laws, acid/base

chemistry, organic functional groups, organic reactions and drug metabolism and the chemistry of anesthetic drugs. Synthesis of advanced principles of organic and inorganic chemistry in this course with anesthesia pharmacology provides the scientific underpinnings necessary for the practice of nurse anesthesia.

NA 6027 Physics for Anesthesia (2 Credits)

The physics principles covered in this class are those pertaining specifically to the delivery of anesthesia and the safety of the patient and the anesthesia provider. The main focus will be analyzing the gas laws and the other principals involved in taking an inhaled anesthetic from the liquid form, vaporization, and delivery to the brain tissue. Physical principles of fires, explosions and electricity as related to anesthesia will be introduced and demonstrated. Students will perform experiments to develop applications of these principles related to the delivery of safe anesthetics.

NA 6028 Introduction to Clinical Anesthesia (3 Credits)

This course examines the basic principles involved in clinical anesthesia necessary to formulate a foundation of knowledge and skills to provide a safe anesthetic. Preparation for providing anesthesia care includes evidence-based lectures, class demonstrations and hands-on participation of patient care documentation, historical review of medical and physical status, pre-anesthesia assessment, anesthesia equipment, organization of operating room environment, and basic anesthesia skills/techniques. Discussions that incorporate an understanding of the need for intra and inter-professional collaboration provide students the opportunity to gain experience with equipment, technical skills, and scenarios they will encounter while providing anesthetic care. Scholarly discussion and return demonstrations by students will be a focus of this course.

NA 6030 Advanced Pathophysiology (3 Credits)

The emphasis of this course is the pathophysiological knowledge required of the advanced practice nurse when diagnosing and treating common physical illnesses throughout the life span. The course builds on the knowledge of anatomy, physiology, biochemistry, microbiology, and immunology. At the conclusion of this course, the student will possess the knowledge to safely and effectively care for patients with various comorbidities and ongoing pathophysiological processes.

NA 6050 Anesthesia Across the Lifespan (3 Credits)

The emphasis of this course is on functional fundamental anatomy, physiology, pathophysiology, pharmacology, and anesthesia techniques as they pertain to care of patients across the lifespan, including patients from pediatric, obstetrical, and geriatric populations. Included in the course is scholarly discussion regarding areas where evidence-based practice improvements may be necessary and the importance of inter and intra-professional collaboration when working with these potentially vulnerable patient populations. The course includes certification in neonatal resuscitation. The course is divided into three sections.

NA 6310: Advanced Principles of Nurse Anesthesia I (2 Credits)

This course focuses on advanced principles associated with nurse anesthesia practice. Specifically, the anesthetic management of eye, ear, nose and throat (EENT) surgeries; neurosurgical and neurologic diagnostic procedures; and outfield/remote anesthetizing locations. Pertinent anatomy and physiology, evidence-based anesthetic management techniques, complications and corresponding anesthetic intervention, and preparation, monitoring, and positioning techniques are discussed in detail. Students will also participate in a hands-on workshop focusing on double-lumen ETT and other advanced airway techniques.

MAYO CLINIC

NA 6315 Advanced Principles of Nurse Anesthesia II (2 Credits)

This course provides a systematic study of cardiovascular and thoracic anatomy, physiology, and pathophysiology as it relates to specialized cardiac, vascular, and thoracic surgical procedures for patients across the lifespan. Extensive review of assessment and interpretation of related diagnostic and laboratory studies distinguishing the students' abilities to use the electronic health record tools to appreciate potential pharmaceutical effects of planned anesthetics. Complex anesthetics for high acuity patients require collaboration of multidisciplinary health care providers across the perioperative period which provides an opportunity for discussion on the organizational and systems approach to improve patient outcomes. Integration of standards of care with advanced and complex scientific underpinnings for cardiac, vascular, and thoracic anesthetic case management will provide the students' opportunities to formulate and disseminate therapies and safe plans of care.

NA 6053 Regional Anesthesia / Pain (3 Credits)

This course will provide an in-depth introduction to the advanced pharmacology, anatomy, physiology, administration techniques, and case management associated with acute and chronic pain management and regional anesthesia. Workshops and simulation activities using live and static models and ultrasound will take place during this course. Knowledge obtained during NA5400 Anatomy for Nurse Anesthetists provides a solid foundation for this course. Evidence-based lectures and scholarly discussion will be a strong focus of this course.

NA 6061 Anesthesia Crisis Resource Management (3 Credits)

This course focuses on the numerous crisis situations that may arise in the field of anesthesia. Areas of emphasis will include etiology, manifestations, differential diagnoses, prevention, and management of each situation. Crisis resource management principles will be emphasized and applied to clinical scenarios. The use of trigger films will be incorporated to enhance student learning experiences. The Second Victim Phenomenon among anesthesia providers/learners will also be discussed.

NA 6100 Professional Dimensions (2 Credits)

This is primarily a scholarly discussion class. SRNAs will be assigned specific topics to investigate, using evidence-based literature pertaining to the anesthesia profession. Guest speakers will be invited to compliment the student presentation topic. Topics related to the anesthesia profession include Professionalism, Substance Abuse, Professional Wellness, Quality Improvement, Ethics, Legal Aspects, Reimbursement/Medicare Issues, Management and Administration Roles, Practice Settings, Alternative CRNA Roles, Interviewing Skills, and Government Relations.

NA 6120 Healthcare Informatics (3 Credits)

This course provides a basis for healthcare informatics, information management, and decision support for nurse leaders related to patient care outcomes, health care quality, and patient safety in the context of anesthetic practice. Evidence-based lectures and scholarly discussion will be a strong focus of this course.

NA 6130 Organizational and Systems Leadership (3 Credits)

Culturally sensitive organizational and systems leadership skills are necessary for improving anesthetic practice and general healthcare outcomes. The focus of this course is on leadership theories, principles of ethical leadership, and professional communication strategies in the context of anesthetic practice. Analysis of individual leadership styles and their effectiveness will be a major focus of this course.

MAYO CLINIC

NA 6140 Evidence-Based Practice (3 Credits)

This course focuses on the conduct of clinical scholarship. Content includes transformational research approaches and evidence-based practice processes, including epidemiological methods as a collaborative approach to anesthesia practice improvement. The course imparts application of analytic methods for searching, selecting, appraising, and synthesizing evidence-based nurse anesthesia practice. Evaluation methods of clinical practice change outcomes on nurse anesthetists, individuals, groups, populations, and systems are addressed.

NA 6150 Health Policy/Quality Health Delivery (3 Credits)

This course provides a base for nurses in advanced roles to shape health care policy in the workplace, organizations, communities, and government at the local, state, and federal level. Issues shaping health care, such as analysis of the health care financing, patient quality and safety, and nursing practice models are analyzed. Tools for being a health care advocate are discussed.

NA 6200 National Certification Exam (NCE) Preparation (4 Credits)

This course focuses on preparation for the National Certification Exam (NCE). Students will be encouraged to use reflection and apply different study/test taking skills. Throughout this course students will learn about certifying exams, review anesthesia board content and take monthly quizzes and a midterm exam. Students will have two opportunities to take the Self-Evaluation Exam (SEE). Consultation with faculty is offered through the course but is required for all students who do not meet minimum program passing requirements for both SEE opportunities.

NA 6203 Comprehensive Anesthesia Review (1 Credit)

Students will attend a comprehensive anesthesia review course that provides an intense, integrated review of evidence-based basic and advanced anesthesia practice, anesthesia science and theory, and preparation tips for the NBCRNA certifying exam. This course will also provide students the opportunity to synthesize their anesthesia related knowledge and identify areas needed for additional instruction and study prior to graduation. This course will be offered at various times and on sites throughout the country, or virtually. Students are responsible for program tuition, transportation, and lodging, if in person attendance occurs.

NA 6206: Advanced Comprehensive Physical Assessment (2 Credits)

This course provides instruction and hands-on experience with advanced physical assessment principles and techniques. In depth, full body system assessment is included, as well as instruction in history taking, documentation, laboratory, EKG and x-ray interpretation, and cultural considerations for comprehensive physical assessment. Hands on components of the course include workshops with assessment equipment and anatomical models and simulated head-to-toe assessment on live patients in the Multidisciplinary Simulation Center.

NA 6210 Case Conferences (3 Credits)

This course provides a forum for students to present and discuss unique or interesting anesthetic cases or situations they encounter during their clinical education. Each student will present 4 cases using an interactive approach to engage their classmates in discussion. Students may include information related to adverse events, pathophysiology, case management techniques, new anesthesia techniques/processes/medications, technology, and interpersonal communication.

MAYO CLINIC

NA 6328 Clinical Observation (1 Credit)

This course will provide students with observational perioperative experience during the first year in the DNAP program. Under direct supervision of anesthesia providers and perioperative personnel the student will be afforded the opportunity to view the various systems and processes needed to deliver safe anesthetic care throughout the perioperative period. This course will provide the student with opportunities to identify areas for scholarly project exploration.

NA 6400 Clinical Anatomy I (3 Credits)

This course is designed with an emphasis on structural and functional relationships among organs and tissues. The class will be taught in an interactive format of lectures, demonstration of projections, regional dissections, small group study, scholarly discussions, and problem-solving.

NA 6401 Clinical Anatomy II (2 Credits)

This course is designed to provide in-depth anatomical knowledge related to the practice of anesthesia. Content includes structural, functional, and surface anatomy related to various anesthesia related topics and procedures. The class will be taught in an interactive format using flipped classroom, lecture, instructor guided lab, student guided lab, and procedure participation.

NA 6220 Basic Principles of Nurse Anesthesia (3 Credits)

This course provides students with foundational knowledge needed for anesthetic care for patients across specialties including considerations for obesity, substance abuse, implantable cardiac devices, cultural competence, and breastfeeding. The course will also present basic principles of anesthetic management (including enhanced recovery after surgery (ERAS)) for common surgical procedures in the orthopedic, trauma, plastic/breast, ear, nose, throat (ENT), abdominal, gynecologic, and urologic subspecialties. Students will participate in a hands-on surgical positioning workshop as part of this course.

NA 6421 Statistics and Research Methods (3 Credits)

This course will provide students with knowledge of the various types of research that contribute to the medical, nursing and anesthesia professions, including issues such as ethics of scholarship and research. The learner will be introduced to current investigational methods and methods of disseminating capstone project/ research results. Scholarly discussion and analysis of selected methods of capstone research and clinical investigational methodology will occur throughout the course, including a focus on Quality Improvement and statistical concepts such as: study design, hypothesis testing, descriptive statistics, data collection, parametric and non-parametric statistical tests, sample size and power, correlation, linear regression, logistic regression, survival analysis and guided critical analysis of selected research literature

NA 6501 Scholarly Project I - Planning (2 Credits)

This is the first in a series of five scholarly works courses. This course is offered in Year 1 of the program and focuses on the initial development of the Scholarly Project, including gathering evidence to support the project, the development of a PICO(T)/Research question, and identification of project stakeholders/facilitators/barriers. During this course, students will use this information to obtain the required approvals for their project. Much of this course will consist of literature review, collaboration with advisors and other relevant project personnel, and laying the initial foundation for the project. The course will culminate with the Scholarly Project Proposal, an oral presentation delivered to faculty and classmates that offers an opportunity for idea sharing and project refinement. The grade

for the course will be based on the proposal presentation and an evaluation of the SRNA's scholarly and professional behaviors.

NA 6502 Scholarly Project II - Implementation (3 Credits)

This course is offered in Year 2 of the program (potentially earlier or later depending on the project) and focuses on the steps of identifying and refining the Scholarly Project's methodology and on project implementation. Activities associated with this course may include but are not limited to the development of the study design, determining plans for statistical analysis, the development and distribution of surveys/assessments, continued communication and engagement with stakeholders, and educational interventions that may be part of the project. Students should work with their faculty advisors on completing the specific project components required for this course. Once done they will complete and submit the scholarly project II checklist. The grade for this Pass/Fail course will be awarded once the checklist is submitted.

NA 6503 Scholarly Project III - Analysis (3 Credits)

This course is offered in Year 2 of the program (potentially earlier or later depending on the project) and focuses on the "Analysis" phase of the Scholarly Project. Activities associated with this course include, but are not limited to analyzing survey results, working with statistics personnel to ensure that appropriate statistical analysis is performed, conducting meetings for follow up or clarification of results, and generating diverse ways to present the results of the project. Students should work with their faculty advisors on completing the specific project components required for this course. Once done they will complete and submit the scholarly project III checklist. The grade for this Pass/Fail course will be awarded once the checklist is submitted.

NA 6504 Scholarly Project IV – Conclusions (3 Credits)

This course is offered in Year 3 of the program (potentially earlier or later depending on the project) and focuses on the "Discussion" phase of the Scholarly Project. Activities associated with this course include but are not limited to discussing how the outcomes of the project will impact the population/practice area in which the project was conducted, sharing this information with relevant stakeholders and project participants, and identifying future implications of the project. Students should work with their faculty advisors on completing the specific project components required for this course. Once done they will complete and submit the scholarly project IV checklist. The grade for this Pass/Fail course will be awarded once the checklist is submitted.

NA 6510 Scholarly Project Dissemination (3 Credits)

This course is offered during Year 4 of the program (potentially earlier or later depending on the project) and focuses on dissemination of the Scholarly Project. During this course, each graduating student will formally present an analysis of his or her evidence-based scholarly project findings during the Final Project Presentation. First year students, clinical project and faculty advisors, and other relevant stakeholders will be in the audience to critique each presentation and provide feedback. These presentations will provide the student with an opportunity to explain his or her project aims and outcomes, as well as articulate an understanding of the processes necessary to successfully execute the DNAP project. As part of this course, students will also prepare a manuscript for submission to a peer- reviewed journal and prepare and present a poster presentation. The grade for the course will be based on the final project presentation and an evaluation of the SRNA's scholarly and professional behaviors.

MAYO CLINIC

CLINICAL COURSEWORK

NA 6300 Clinical Orientation and Competencies (1 credit)

This course is an introductory experience in clinical anesthesia. Under continuous direct supervision by the preceptor, clinical specialists, and staff anesthesiologists, the nurse anesthesia student will provide anesthesia for a variety of surgical cases. The student will be introduced to the intra and inter-professional collaborative approach of the anesthesia care team. During the course, the student will acquire basic skills for airway management, venous access, equipment operation, postoperative assessment, patient and personal safety, and patient positioning.

NA 6301 Clinical Anesthesia: Jacobsen (2 credits)

This clinical rotation provides the student nurse anesthetist with exposure to the fields of gynecology, infertility, urology and plastic surgery and the appropriate anesthetic case management. During this course, the student is expected to synthesize and apply pertinent knowledge of the scientific underpinnings for practice relating to the nature of patients undergoing these specialized procedures. As the student gains fundamental skills, additional expectations will be added. The student will gain evidence-based knowledge of specific conditions and techniques that would be relevant to this multispecialty case mix. The student will be expected to be flexible in room assignments and clinical shifts. Anesthesia care is directly supervised by staff anesthesiologists and staff CRNAs.

NA 6304 Clinical Anesthesia: Eisenberg 1 (2 credits)

This clinical rotation provides the student nurse anesthetist with clinical experience in the various facets of orthopedic anesthesia and organ transplantation. During this course, the student is expected to gain pertinent knowledge for practice relating to the nature of patients undergoing these specialized procedures. As the student gains fundamental skills, additional expectations will be added. The student will be introduced to regional anesthesia techniques affording them an opportunity to observe techniques and synthesize the pharmacology and anatomic scientific underpinnings utilized in a multi-modal approach to anesthesia care. The student will apply evidence-based best practice techniques for the specific conditions and techniques that would be relevant when caring for these patients. Anesthesia is directly supervised by anesthesiologists and staff CRNAs.

NA 6302 Clinical Anesthesia: Eisenberg 2 (2 credits)

This clinical rotation provides the student nurse anesthetist with a variety of anesthetic techniques for various general surgical procedures. During this course, the student is expected to synthesize and apply pertinent knowledge of the scientific underpinnings for practice relating to the nature of patients undergoing these specialized procedures. As the student gains fundamental skills, additional expectations will be added. The student will gain evidence-based knowledge of specific conditions and techniques that would be relevant when caring for patients with these disorders and co-existing disease processes. Anesthesia is directly supervised by staff anesthesiologists and staff CRNAs.

NA 6305 Clinical Anesthesia: Central (2 credits)

This clinical rotation provides the student nurse anesthetist with clinical experience in the various facets of orthopedic and trauma anesthesia. During this course, the student is expected to gain pertinent knowledge through the synthesis and application of scientific underpinnings taught in the didactic and clinical curriculum for practice relating to the nature of patients undergoing these specialized procedures. Potential exposure to emergency trauma surgical and anesthetic experiences will exemplify the intra and inter-professional collaborative approach needed to safely and effectively care for Level 1 trauma patients with the student participating as an

intricate member of the anesthesia team. As the student gains fundamental skills, additional expectations will be added. The student will apply evidence-based best practice techniques for the specific conditions and techniques that would be relevant when caring for these patients. Anesthesia is directly supervised by staff anesthesiologists and staff CRNAs.

NA 6306 Clinical Anesthesia: Multispecialty (2 credits)

This clinical rotation provides the student nurse anesthetist with clinical experiences in the multi modal aspects of anesthesia management and anesthesia set-ups for general surgery procedures. During this course, the student is expected to synthesize and apply pertinent knowledge of the scientific underpinnings for practice relating to the nature of patients undergoing these specialized procedures. As the student gains fundamental skills, additional expectations will be added. The student will gain knowledge of specific conditions and techniques that would be relevant to the multispecialty case load for surgical sub-specialties including urology, gastro-intestinal, plastics, and bariatric. The student will be expected to apply evidence-based best practice techniques for the specific conditions and techniques that would be relevant when caring for these patients. The student will be expected to be flexible in room assignments and case shifts. Anesthesia is directly supervised by staff anesthesiologists and staff CRNAs.

NA 6320 Clinical Anesthesia: Cardiovascular (2 credits)

This senior clinical rotation provides nurse anesthesia students with experience in the advanced facets of cardiac and vascular anesthesia. During this course, the student is expected to apply past experiences and synthesize new knowledge based on scientific underpinnings for specific conditions and techniques that would be relevant to caring for patients with cardiovascular and valvular disease. Students will assess and analyze the impact of evidence-based anesthetic management to improve patient health outcomes with reflection on ideas for quality improvement and practice change. Management of multisystem organ function with ongoing patient assessment utilizing advanced technology and invasive techniques will involve proliferation of critical thinking skills when managing these complex patients. Anesthesia is directly supervised by staff anesthesiologists and staff CRNAs.

NA 6321 Clinical Anesthesia: Neurosurgery (2 credits)

This senior clinical rotation provides the nurse anesthesia students with advanced clinical experiences in the advanced facets of neuroanesthesia including surgical and interventional radiology. During this course, the student is expected to apply past experiences and synthesize new knowledge based on scientific underpinnings for specific conditions and techniques that would be relevant to caring for patients with neurologic disorders requiring intervention. Proliferation of critical thinking skills when managing these highly specialized anesthetics will be supported with evidence-based best practice techniques. Students will assess and analyze the impact of evidence-based anesthetic management to improve patient health outcomes with reflection on ideas for quality improvement and practice change. Anesthesia is directly supervised by staff anesthesiologists and staff CRNAs.

NA 6322 Clinical Anesthesia: EENT/Oral (2 credits)

This clinical rotation provides the student nurse anesthetist with clinical experiences in the anesthetic management of patients undergoing EENT and Oral surgery procedures. Anesthetic management will include caring for patients across the life span with a case mix of same day surgery to extensive reconstruction. During this course, the student is expected to gain pertinent knowledge of the scientific underpinnings for practice relating to the particular nature of patients undergoing these specialized procedures and specific anesthetic techniques pertinent to EENT procedures. The student will work in an environment where inter-professional collaborative care is exemplified when often sharing the airway with the surgeon. Students will assess and analyze the impact of evidence-based

anesthetic management to improve patient health outcomes. Anesthesia is directly supervised by staff anesthesiologists and staff CRNAs.

NA 6323 Clinical Anesthesia: Obstetrics (2 credits)

This senior clinical rotation provides the student nurse anesthetist with advanced clinical experience in the various facets of Obstetric Anesthesia. Opportunities to care for patients in different times in the lifespan from the normal parturient and women experiencing high risk pregnancies as well as newborn care in an environment that utilizes an interdisciplinary approach for labor and delivery. A collaborative effort working in the high-risk obstetric emergency setting provides an opportunity for the student to participate in a variety of team and leadership roles. During this course, the student is expected to apply past experiences from their pediatric rotation and synthesize new information to gain pertinent knowledge of the scientific underpinnings for practice relating to what would be relevant when caring for these patients. Students will assess and analyze the impact of evidence-based anesthetic management to improve patient health outcomes with reflection on ideas for quality improvement and practice change. All anesthesia care provision is directly supervised by staff anesthesiologists and staff CRNAs.

NA 6324 Clinical Anesthesia: Pediatrics (2 credits)

This senior clinical rotation provides the student nurse anesthetist with advanced clinical education opportunities focusing on the anesthetic management of pediatric patients from neonate to 18 years of age. Caring for patients in the children's hospital provides experience working with pediatric specialists in the anesthesia and surgical fields who are consulted to provide care for many patients with complex disease processes. During this course, the student is expected to gain knowledge of specific communication and assessment techniques necessary when caring for the pediatric patient undergoing a surgical procedure and their family. Students will assess and analyze the impact of evidence-based anesthetic management to improve patient health outcomes with reflection on ideas for quality improvement and practice change. All anesthesia care provision is directly supervised by staff anesthesiologists and staff CRNAs.

NA 6325 Clinical Anesthesia: Off-Campus Rotation (2 credits)

This senior clinical rotation is to provide nurse anesthesia students with advanced clinical experiences in the various facets of regional anesthesia and in the practice of anesthesia at a rural health care facility. During this course, the student is expected to gain pertinent knowledge of the scientific underpinnings for practice relating to the nature of patients undergoing specialized anesthetic techniques for a vast array of procedures. Although students will fulfill all regional anesthetic requirements during this affiliation, their participation in anesthesia is not limited to regional anesthesia. Students will assess and analyze the impact of evidence-based anesthetic management to improve patient health outcomes. The course may provide opportunities for students to disseminate new ideas for quality improvement and practice change in a rural setting to the anesthesia department and their medical center cohorts. Students will participate in the administration of all types of anesthetics at the direction of their supervising staff anesthesiologists or staff CRNAs.

NA 6329 Clinical Anesthesia: Thoracic/Musculoskeletal (2 credits)

This senior clinical rotation provides the student nurse anesthetist with advanced clinical experience in the various facets of thoracic and musculoskeletal anesthesia. Learning to care for these complex patients across the life span will provide experiences with advanced airway skills and specialized monitoring modalities to assess neuromuscular functions while under anesthesia. During this course, the student is expected to apply past experiences and synthesize new knowledge based on scientific underpinnings for specific conditions and techniques that would be relevant when caring for these patients. The student will be expected to apply evidence-based best practice techniques for the specific conditions and techniques that would be relevant when caring for

these patients. Students will assess and analyze the impact of evidence-based anesthetic management to improve patient health outcomes with reflection on ideas for quality improvement and practice change. Students will participate in the administration of all types of anesthetics at the direction of their supervising staff anesthesiologists and staff CRNAs.

NA 6331 Advanced Practicums & Advanced Clinical Experience (4 credits)

This enrichment experience provides the nurse anesthesia students with an opportunity to participate in a broad spectrum of care provided by the anesthesia department health care providers outside of the operating room environment. Throughout this course a variety of experiences will provide students' opportunities to observe CRNAs working within the organization and system who are often involved in practice improvement projects. Students are afforded the exposure to these specialty focus periods of time when anesthesia delivery is often provided by non-medically directed CRNAs in many outfield settings during all hours of the day and evening including off-shift call. During this course, the student is expected to gain pertinent knowledge of the scientific underpinnings for practice relating to the nature of patients undergoing these specialized procedures.

MAYO CLINIC

CLASS SCHEDULE

The Doctor of Nurse Anesthesia Practice Program (39 months of study) is divided into several phases:

1. Initial Didactic: 3-4 days per month on-campus instruction
2. Full-time on-campus instruction
3. Clinical competencies and orientation
4. Classes, research, and clinical experiences for the remainder of the program

It is expected that classes, clinical experience, and research will require 60+ hours' time commitment per week.

Major Focus	Didactic	Clinical
Year I (September – June)		
DNAP Essentials & Scholarly Work	3-4 days per week, on campus	One day per month
Year II, Phase I: July - November		
Anesthesia and Basic Sciences	8am to 5pm ** M-F	Clinical Orientation, 2 days per week, beginning in fall
Year II, Phase II and Year 3+		
Specialty, Scholarly Work and Clinical Experiences	8am to 5pm ** on assigned class day.	Clinical 4 days per week* Call will be scheduled.

Class meeting times will be published on an electronic calendar.

***Other TBA class times and program commitments may be scheduled (i.e.: evening meetings/dinners, workshops that may extend into the evening)*

**Clinical schedules published through the Department of Anesthesiology QGenda clinical scheduling program.*

ADDITIONAL INFORMATION

Financial Information

Operating room apparel, a molded earpiece, and a weighted precordial stethoscope are provided by the program. Students are required to purchase textbooks prior to the start of the program. Numerous additional texts are available at no cost via e-books. Students are required to become an associate member of the AANA ($200/39 months as of 2023).

The cost for tuition and fees for DNAP programs is reasonable and reviewed on an annual basis. Please refer to the website for the most current information.

Students receive a laptop for use during the program enrollment. Laptops must be returned at the end of the program, per the check-out instructions.

Certification Examination

Practicing as a CRNA requires successful completion of the NBCRNA's National Certification Examination. Prior to program completion, upcoming graduates register for the examination and pay registration fees (approximately $1000.00 as of 2024).

Financial Aid

Graduates can obtain information about financial aid through the Mayo Clinic School of Health Sciences, Financial Aid Office - (507) 284-9387 mayofinaid@mayo.edu

Tuition

Tuition for all didactic graduate courses will be billed at the current rate (see website for more information). Currently tuition is not billed for most clinical courses. Check the program web site for current tuition rates. Tuition rates are reviewed on a yearly basis. Please check with Mayo Clinic Employee Benefits to determine the most up-to-date information pertaining to tuition reimbursement.

Healthcare

Students are required to document current health care coverage for the duration of the nurse anesthesia program. Documentation of required vaccinations is also required. Non-Mayo Clinic employees are eligible for Mayo Clinic student healthcare coverage including families. Mayo Clinic employees entering the program pay for coverage based on last employment FTE (Full Time Equivalent).

Resources: mccmsstudenthealth@mayo.edu
mayo@hsac.com
1-888-978-8355

DNAP Student Employment

SRNAs are not allowed to participate in employment involving the provision of anesthesia care or anesthesia-related services during enrollment. Doing so will result in immediate dismissal.

It is possible for students to maintain employment during enrollment but students should be aware that doctoral level coursework requires a significant amount of time and commitment to be successful. Students may work on a supplemental basis if it does not interfere with the educational program, academic and clinical performance is satisfactory and there is no participation in outside employment during the ten-hour timeframe prior to clinical assignments

DNAP Travel Requirements

Students are required to travel to and stay at one off-campus site during a 9-week Off-Campus rotation. Off-Campus clinical sites include a variety of facilities in Iowa, Minnesota and Wisconsin. Furnished student housing is provided by the program during Off-Campus rotations.

Travel may also be required for attendance at venues to disseminate scholarly work.

Benefits

The Mayo Clinic College of Medicine offers a health care and hospitalization plan, prescription drug plan, and dental insurance to students and their families.

Professional liability is covered by Mayo Foundation for required clinical activities.

Students are responsible for housing, meals, parking, and transportation during both clinical and didactic portions of the program. Student housing is provided during Off-Campus rotations.

Students receive additional information describing benefits during interviews and at the time of program orientation. The Mayo Clinic School of Health Sciences or the Mayo Clinic Human Resources office may be contacted for more information.

Additional Information/Clarification

Information on Mayo Clinic School of Health Sciences, Doctor of Nurse Anesthesia Practice Program policies and procedures are available in the SRNA Policy Manual, Program Administrative Manual, MCSHS Policy and Procedures Manual and Mayo Clinic Employees' Policies and Procedures Manual.

For additional information, contact:

Erin E. Martin, CRNA, APRN, DNP
Director, Doctor of Nurse Anesthesia Practice Program
1012 Siebens Building
200 First Street SW
Rochester, MN 55905
Phone: (507) 284-8331, (507) 538-3601