



**Northeast Ohio**

**MEDICAL UNIVERSITY**

**Master of Medical Science in Anesthesia (MMSc-A)**

**College of Graduate Studies**

**PRECEPTOR MANUAL**

**Last Updated 11/2022**

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## INTRODUCTION

Welcome and thank you for your service as a preceptor for the Northeast Ohio Medical University (NEOMED) College of Graduate Studies (COGS) Master of Medical Science in Anesthesia (MMSc-A) program. The preceptor role is teacher, mentor, and advocate for our students' professional development. You are guiding our students through their clinical training as they acquire the skills and knowledge necessary to become a practicing professional Certified Anesthesiologist Assistant.

MMSc-A clinical rotations are designed to enhance the knowledge base and skills students need to fulfill the competencies required for the practicing CAA. Students should further develop their skills in patient care, critical thinking, decision making, ethical judgment and professionalism.

This preceptor manual is a guide for preceptors to utilize in one's development and throughout a student's clinical rotation. We have included information on COGS and MMSc-A policies, procedures, objectives, and assessments. You are making an enormous contribution to individual students, NEOMED and the profession of anesthesiology. Please do not hesitate to contact the college if you have any questions; we are more than willing to assist you.

Best wishes for a rewarding experience!

Nathaniel Flath, CAA  
Program Director MMSc-A Program  
Assistant Professor COGS  
NEOMED University

## NEOMED EXPERIENTIAL PROGRAM CONTACT INFORMATION

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## **ABOUT NEOMED**

Northeast Ohio Medical University (NEOMED) is a dynamic public institution of higher learning. Established in 1973, the University trains physicians, pharmacists, researchers, and other health professionals in an interprofessional environment. For 48 years, NEOMED has been changing the lives of individuals in the region through the innovative teaching of tomorrow's certified anesthesiologist assistants, physicians, pharmacists, public health officials and healthcare researchers. Dedicated to our mission of education, research, and service, NEOMED strives to improve the quality of healthcare and make a strong economic impact in Northeast Ohio and beyond.

NEOMED is in Rootstown, Ohio, a rural community located in Portage County, about a 30-minute drive from Akron and Youngstown and less than an hour from Cleveland, western Pennsylvania, and the beautiful rolling hills of Ohio Amish country. The University's grounds and facilities are conveniently arranged, beautifully maintained, and effectively designed to meet the academic, personal, and extra-curricular needs and interests of our students. Students typically live-in private apartments or housing a short drive from the University, with increasing numbers taking advantage of The Village at NEOMED, a public-private partnership, offering fully furnished upscale apartment suites just steps away from the University.

## **NOTICE OF NON-DISCRIMINATION**

Northeast Ohio Medical University does not discriminate based on age, color, disability, gender identity or expression, genetic information, national origin, race, religion, sex, sexual orientation, transgender status, status as a parent during pregnancy and immediately after the birth of a child, status as a parent of a young child, status as a foster parent, or veteran status. The following individuals have been designated to handle inquiries regarding the University's non-discrimination policies:

For discrimination concerns, including Title IX concerns, contact:

Molly O'Malley

Associate Director of Diversity, Equity, and Inclusion/Title IX Officer

Office of Human Resources and Diversity

Northeast Ohio Medical University

4209 St. Rt. 44, Rootstown, OH 44272

Telephone: 330.325.6733

## OUR MISSION, VISION, AND VALUES

### Mission

NEOMED harnesses diversity, innovation, and collaboration to create transformative leaders and improve health through education, discovery, and service.

### Vision

To be the model of excellence in innovative education and impactful research to create transformational health care leaders of tomorrow.

### Values

NEOMED incorporates the following values in all that we do:

Leadership | Excellence | Advocacy | Diversity | Equity | Respect

### **MISSION STATEMENT – College of Graduate Studies**

The mission of the College of Graduate Studies is to instill critical thinking, inspire curiosity, and promote innovation to graduate future generations of scientists, researchers, teachers, and community leaders who will use the power of education, research, and scholarship for positive impact.



## **HISTORY OF NORTHEAST OHIO MEDICAL UNIVERSITY**

In 1972, multiple constituents, including three state-supported universities in Northeastern Ohio (The University of Akron, Kent State University and Youngstown State University), responded to a challenge offered by the Ohio General Assembly to develop a plan for medical education for this area that could address the need for primary care physicians, and one which would use existing facilities of the three universities and of the area community hospitals to the greatest extent possible.

The Northeastern Medical Education Development Center of Ohio, Inc. (MEDCO), was incorporated under Ohio Law on Aug. 18, 1972, to "develop a plan for expanding medical education opportunities in Northeastern Ohio, including the establishment of a medical school." The directors of MEDCO engaged Stanley W. Olson, M.D., to direct the planning effort. He and a group of experts in medical education prepared a document, "The MEDCO Plan for Medical Education - 1973," which was accepted by the MEDCO directors and forwarded to the Governor of Ohio, the Ohio General Assembly, and the Ohio Department of Higher Education (formally known as the Ohio Board of Regents) on Dec. 26, 1972. In August 1973, the Ohio General Assembly passed legislation establishing the Northeastern Ohio Universities College of Medicine (NEOUCOM). On Nov. 26 of that year, the Board of Trustees of NEOUCOM was officially installed. The Board of Trustees invited Dr. Olson to become the chief executive officer of the College. The official "founding" date of the University is November 23, 1973.

Early in 1974, the site at Rootstown was chosen for the Basic Medical Sciences and Administrative Campus of the College. In 1975, 42 members were selected for the charter class of the six-year B.S./M.D. curriculum, and Phase I studies commenced at the consortium universities. In 1976, the College of Medicine was awarded a Letter of Reasonable Assurance from the Liaison Committee on Medical Education, and, in 1977, provisional accreditation was granted. In September of that year, charter class members began their freshman year of medical school on the Rootstown campus.

Meanwhile, hospitals in the area signed association agreements with the College of Medicine. Teaching hospitals that associated early with the College to function as major teaching hospitals were Akron General Medical Center, Children's Hospital Medical Center of Akron and Summa Health System, Akron; St. Elizabeth Health Center and Western Reserve Care System, both of Youngstown; and Aultman Hospital and Timken Mercy Medical Center of Canton. Hospitals that signed as limited teaching hospitals were Fallsvue Psychiatric Hospital, Cuyahoga Falls; Robinson Memorial Hospital, Ravenna; Woodside

Receiving Hospital, Youngstown; Barberton Citizens Hospital, Barberton; Trumbull Memorial Hospital, Warren; Hillside Hospital, Warren; Edwin Shaw Rehabilitation Center, Akron; and Lodi Community Hospital, Massillon Psychiatric Hospital, Salem Community Hospital, and Wadsworth-Rittman Hospital. In 1994, Barberton Citizens Hospital was reclassified as a major teaching hospital because of its increased role in undergraduate and graduate family medicine education. Ambulatory care centers have been completed at the major teaching hospitals in Akron, Canton, and Youngstown. Full-time basic medical science and community health sciences faculty were recruited to work at the Rootstown campus. A large faculty of full-time, part-time, and volunteer clinicians at the associated hospitals and in private offices were recruited to provide the curriculum of the clinical years.

The mission of the Northeast Ohio Medical University (NEOMED) Foundation is to strengthen the financial capacity of Northeast Ohio Medical University and to broaden access to high quality medical, pharmacy and graduate education. The Foundation works with the University as it endeavors to meet the health care workforce needs of Ohio and our nation, engage in groundbreaking health care research, and serve the community. Founded in 1978, the NEOMED Foundation accomplishes its mission through advocacy, fundraising, community outreach, investment management and stewardship of resources.

Full accreditation was accorded the medical portion of the College's six-year combined B.S./M.D. degree program on June 30, 1981, retroactive to March 5, 1981 (the actual date of the LCME site visit). The College's Charter Class of 42 students graduated on May 30, 1981.

### *Program Expansion*

In November 2005, the Ohio Department of Higher Education approved a Doctor of Pharmacy degree program at NEOUCOM, and the College of Pharmacy was ratified in December 2005 by the NEOUCOM Board of Trustees. The pharmacy program was likewise created to meet important regional needs: to address the shortages in the pharmacy workforce and the lack of pharmacy education in Northeast Ohio.

In August 2007, the College of Pharmacy welcomed its first class of 75 students with preferential admissions agreements with four of Northeast Ohio's public universities, The University of Akron, Kent State University, Cleveland State University and Youngstown State University. Recognizing the culture of

collaboration at NEOUCOM, the design of the new college incorporated interprofessional education in its model, building a greater awareness and understanding of each profession and a deeper understanding of working together for the outcome of better patient care.

In July 2008, Governor Ted Strickland, the Ohio Department of Higher Education Chancellor Eric D. Fingerhut and the Ohio General Assembly signed House Bill 562 into law as part of a state initiative to enhance the quality and affordability of postsecondary education. Through this initiative, NEOUCOM welcomed Cleveland State University as its fourth university partner in the College of Medicine's combined B.S./M.D. program.

In 2009, the College of Graduate Studies was established. The University received degree-granting authority for a Master of Public Health degree and a Master of Science and Doctor of Philosophy in integrated pharmaceutical medicine. The Bioethics Certificate program was also housed in the College of Graduate Studies.

In 2009, the Ohio Department of Higher Education called for an expansion of the College of Medicine program to include students from Cleveland State University.

April 29, 2011 was another historic day for the University, as Governor John Kasich publicly signed House Bill 139 as approved by the Ohio General Assembly to officially change the name of the Northeastern Ohio Universities College of Medicine (NEOUCOM) to Northeast Ohio Medical University (NEOMED). The approval and signing of this bill not only changed our name but also positioned NEOMED as an academic health center and as a free-standing public university, one of 14 public universities in Ohio.

In spring 2012, the Ohio Department of Higher Education approved the Master of Science/Residency Program in health-system pharmacy administration. This program is operated by the College of Pharmacy and housed under the College of Graduate Studies. In the same year, the College of Pharmacy also established a Pharmacy Residency Program within the Department of Pharmacy Practice. The program consists of a community pharmacy post-graduate year 1 (PGY1) residency with NEOMED and a federally qualified health center, a PGY1 community pharmacy residency program with Cleveland Clinic, and a postgraduate year 2 (PGY2) residency program with University Hospitals Geauga Medical Center.

In spring 2017, the Ohio Department of Higher Education approved the Master of Arts in Medical Ethics and Humanities offering students two tracks, in either medical humanities or ethics as applied to clinical settings. This program is operated in partnership with Kent State University and the University of Akron.

In winter 2018, the name of the Bioethics Certificate was changed to align with the associated master's degree in medical Ethics and Humanities.

In March 2019, the Ohio Department of Higher Education approved the Master's in Modern Anatomical Sciences and the Master of Science in Modern Anatomical Sciences programs. The two program tracks help to fulfill the needs of students by offering a 1-year accelerated Master of Modern Anatomical Sciences and a 2-year M.S. in Modern Anatomical Sciences. These programs are designed to train the next generation of medical science educators through offerings in foundational and advanced human anatomy, microanatomy, and neuroanatomy using both traditional dissection methodologies and modern imaging modalities.

### Campus

The 112-acre Rootstown campus houses the University's administrative offices, the departments of anatomy and neurobiology, integrative medical sciences, and pharmaceutical sciences, and the clinical departments of family and community medicine, internal medicine, pharmacy practice, and psychiatry. State-of-the-art facilities range from the Dr. Chatrchai and Eleanor Watanakunakorn Medical Research Building, housing research laboratories and classrooms for collaborative research projects among clinical and basic sciences faculty, to the Aneal Mohan Kohli Academic and Information Technology Center, which has more than 5,000 volumes and 3,000 E-books. Through OhioLINK, patrons have access to more than 100,000 e-books and 24 million electronic articles. Recent renovations to the lecture halls and the addition of the pharmacy labs and multi-disciplinary labs have enhanced the educational setting for students.

The William G. Wasson, M.D., Center for Clinical Skills Training, Assessment and Scholarship is unique simulation facility that provides students a safe experiential education environment to learn, practice and be assessed on important clinical, communication and team skills. Standardized or simulated patients (SPs), individuals trained to role-play a variety of patient cases, are recruited, and trained to teach and evaluate health professions' students' clinical skills. Skills taught and assessed may include but are not limited to medical interviewing, health assessment, physical exam, verbal and nonverbal communication, medication therapy management, differential diagnosis, and interprofessional team-

based collaborative care and leadership. In addition to SPs, the Center also provides a variety of task trainers and manikins as education tools for students to safely learn and practice procedural and clinical skills and bridge medical knowledge's application to medical practice.

In 2009, The Best Practices in Schizophrenia Treatment (BeST) Center was established at NEOMED with a \$5 million grant from The Margaret Clark Morgan Foundation of Hudson, Ohio. The Center's mission is to ensure that people with schizophrenia and related disorders maximize their ability to achieve recovery by receiving early intervention treatments shown to be best practices. To do so, the Center works with clinical partners from Summit County, Ohio, and the surrounding areas.

In 2013, the University opened the Research and Graduate Education Building, a four-story, 80,000 square foot facility that includes state-of-the art open biomedical laboratories that support collaborative research along with sophisticated core facilities. In addition, there are faculty offices, areas for students and technicians and seminar, small group conference and teaching rooms.

The University also opened its first on-campus residential housing in 2013. "The Village at NEOMED" is located on the Northwest corner of the NEOMED campus. The 270,000 square-foot luxury residential housing village includes private parking and paved walkways for easy access to existing campus facilities. More information is available online at <http://www.thevillageatneomed.com/>.

In 2014, the University opened its Health, Wellness and Medical Education Complex, the "NEW Center" a 177,338 square-foot addition that houses numerous community-centered services including a fitness center, pools, therapy services, conference services, classroom and lecture hall space, a coffee shop, eateries, a retail pharmacy (Rootstown Community Pharmacy), a dentist (Yunbelievable Smiles) and even primary care offices (Summa). The complex is located on the east side of campus along State Route 44.

In late 2020, a \$24 million, 87,000 square-foot medical office building and academic learning center will be the new face of Northeast Ohio Medical University and Bio-Med Science Academy, a STEM+M high school on campus. The facility will include medical offices and a patient simulation center. The new medical office building will double the size of Wasson Center for Clinical Skills Training, Assessment, and Scholarship, which trains health sciences students and professionals from throughout Northeast Ohio. The building will also provide space for one or more clinical partners.

## Accreditation

### **NEOMED**

NEOMED is fully accredited by the Higher Learning Commission (HLC). The HLC is one of the six regional agencies that accredit U.S. colleges and universities at the institutional level. The HLC evaluates how the University fulfills its mission and achieves its strategic goals by assessing the educational aspect, governance, administration, financial stability, admissions, student services, institutional resources, student learning and institutional effectiveness. NEOMED's most recent HLC comprehensive evaluation took place in April 2013. The next HLC comprehensive evaluation will be conducted in Fall 2023. The official HLC Statement of Accreditation Status is available on the university website under the HLC Mark of Affiliation. Questions or concerns regarding the University's accreditation should be directed to the Higher Learning Commission.

Higher Learning Commission  
230 South LaSalle St., Suite 7-500  
Chicago, IL 60604  
800.621.7440

### **College of Graduate Studies**

All degrees offered through the College of Graduate Studies are accredited by the Higher Learning Commission (HLC). The HLC evaluates the University's mission and standards by assessing the educational aspect, governance, administration, financial stability, admissions, student services, institutional resources, student learning, and institutional effectiveness.

### **MMSc-A Program**

The Master of Medical Science in Anesthesia program is accredited by the Commission on Accreditation of Allied Health Education Programs upon the recommendation of the Accreditation Review Committee for the Anesthesiologist Assistant (ARC-AA).

## PROGRAM FACULTY AND STAFF

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## **CLINICAL ROTATION SCHEDULE**

### **First-Year Clinical Rotation Schedule**

First-year students will do a combination of clinical rotations and high-fidelity simulation experiences, averaging 1.5 days of each throughout their first year.

### **Second and Third-Year Clinical Rotation Schedule**

Second and third-year students will complete month long clinical rotations full time, Monday through Friday. These clinical rotations will include required specialties (Obstetrics, Pediatrics, Trauma, Preop/PACU, ICU, Cardiac, Regional, Outpatient) as well as general rotations.



## **STATEMENT ON ETHICAL CONDUCT**

NEOMED MMSc-A students are expected to hold themselves to the highest level of professional and ethical standards. In addition to following the Guidelines for the Ethical Standards of the Anesthesiologist Assistant set forth by the American Academy of Anesthesiologist Assistants, NEOMED MMSc-A students are expected to:

- Always maintain a professional manner in both appearance and behavior.
- Demonstrate courtesy and respect towards others and exhibiting self-control in all interactions.
- Maintain confidentiality regarding patient information and displaying honesty and integrity in all activities.
- Arrive on time and be prepared for all clinical rotation and activities.
- Demonstrate the ability to complete assignments in an accurate and timely manner.
- Develop the habits consistent with life-long learning.

## **EDUCATIONAL PHILOSOPHY**

The NEOMED Master of Medical Science in Anesthesia Program uses a combination of an innovative didactic curriculum, high-fidelity simulation, and hands-on clinical experiences to provide the highest level of training to produce qualified, competent Certified Anesthesiologist Assistants. The program is committed to providing students with the resources they need to successfully complete the program and prepare them for a successful career providing the highest quality of patient-centered, anesthesiologist led anesthetic care for their patients. Students will also be encouraged to not only advance in their careers through lifelong learning, but also to be leaders who continue to advance the profession both through their practice and through a commitment to advocacy.

## **PROGRAM OVERVIEW**

Northeast Ohio Medical University's Master of Medical Science in Anesthesia Program welcomed its first student cohort in January of 2022. The program was started with the goal to help fill the shortage of anesthesia providers. The program not only wanted to create competent providers that provided excellent patient care, but also leaders in the profession. Through a rigorous 28-month master's degree program that combines an innovative didactic curriculum, high-fidelity simulation, and hands-on clinical experiences, NEOMED graduates enter the workforce ready to provide the highest quality of care for their patients. The innovative curriculum combines basic science courses essential for the CAA profession with innovative ideas in medicine, allowing our students to stay up to date on the most recent medical advancements. The curriculum is also built to help students navigate the transitions throughout the program; first year to second year as well as final semester transitioning to practice. The high-fidelity simulation will prepare our students to care for patients in many different settings. Students will learn appropriate actions to handle normal cases, rare complications, as well as crisis management. This will provide them with the skills and knowledge needed to enter their clinical experiences prepared to appropriately adjust their anesthetics to provide the highest level of patient-centered care. The hands-on clinical experiences with some of the area's best CAAs, anesthesiologists, and residents will give them real world reference for the information they are learning in the classroom and simulation.

The first year of the program will be a combination of classroom, cadaver lab, simulation lab and clinical experiences, with clinicals starting in week five of the program. While the students will be rotating in their clinical experience throughout their first year, the focus of the first year will be on classroom and simulation lab work. The second year and third year of the program will be focused on specialty clinical rotations, while still maintaining some simulation and classroom work. Students will rotate through ten different subspecialties of anesthesia. The final clinical months of the program will give students the opportunity to rotate at the hospital of their choice, preferably the hospital they are going to be working in after graduation. This will allow for a smooth transition to practice for both the student and the hospital.

### Goals, Objectives, and Activities

The goals and objectives for each experience align with the STUDENT CLINICAL GOALS AND OBJECTIVES needed to fulfill the requirements for the MMSc-A degree. Students must demonstrate a minimum level of proficiency for all the abilities by the end of the experiential education. Preceptors may include their own site-specific goals and objectives for their rotations.

The Preceptor shall:

1. Recognize that the relationship with the student is one of preceptor-student rather than employer-employee.
2. Recognize that learning requires mutual respect, courtesy and communication between him or herself and the student.
3. Take responsibility for the professional and legal supervision of the student during the experience.
4. Demonstrate principles of professional ethics.
5. Plan and prepare for the student's rotation experience. This includes review of the rotation goals and objectives, review of assessment forms, develop a schedule of activities for the student, and notify staff of their responsibilities when working with a student.
6. Give the student a thorough orientation to the site and experience early in the rotation to facilitate a smooth transition and an optimal use of available resources.
7. Clearly outline expectations of the student regarding professional dress, conduct, scheduling of hours/activities, and performance.
8. Afford the student sufficient time, preparation, and patience for the learning experience.
9. Do not assume the student's level of competence but determine this by discussing previous experiences the student had and observing performance of his/her basic skills.
10. Expose and involve the student in all aspects of practice consistent with the student's ability, needs and interest.
11. Provide the student with feedback and constructive criticism on a continuous basis and convey this information in a private manner.
12. Familiarize site personnel with the experiential program objectives to avoid misunderstanding about the student's role during the rotation.
13. Review with the student their daily performance and end of the rotation in an objective manner.
14. Complete daily and end of rotation student evaluations using CoreElms software.

15. Communicate any concerns about student performance to the Program Director.

### Student Standards

The following are standards, which all students must meet to participate in clinical rotations:

- Be in good academic standing at NEOMED including successful completion of all didactic course work.
- Up to date with all required immunizations
- Pass a criminal background check
- Have successfully completed Basic Life Support.
- Will not receive monetary compensation.

Students always represent NEOMED. Students are expected to conduct themselves in a professional manner in all interactions during clinical rotations.

During experiential (clinical) rotations, the student shall:

- Be professional in both appearance (dress) and conduct.
- Work to master assigned activities quickly so more time can be devoted to gaining the best experience possible.
- Recognize that learning requires mutual respect and courtesy and an open line of communication between preceptor and student.
- Not divulge any patient information (HIPPA compliant).
- Adhere to specific schedule determined by preceptor.
- Be punctual, this includes preceptor notification of absence or lateness.
- Complete a constructive evaluation of the preceptor.

## PRECEPTOR GUIDELINES

### CoreElms

CoreElms is a management software system used by NEOMED to track all experiential training rotations and associated information. Every student and preceptor will be able to use the system, via Internet, to check for rotations updates, maintain personal addresses, complete student evaluation forms, and communicate with student. Detailed instructions for using this system can be found in the Appendix.

### Preceptor Checklist: Before the Student Arrives

The following are several items which you may want to check off before the rotation begins. You may also wish to provide some of this information to your student when he or she contacts you prior to the start of the rotation.

1. Review STUDENT CLINICAL GOALS AND OBJECTIVES to be met.
2. Prepare a list of student tasks/activities in accordance with goals and objectives.
3. Inquire about additional orientation sessions and/or procedures student must attend and/or follow for your facility such as orientation sessions, additional ID badges, etc.
4. Have information available regarding parking location, permits, fees, etc.
5. Remind staff of arrival of student, what the student's roles and responsibilities will be, and the role staff members will have regarding the rotation.
6. Prepare a list of your facility's contact names and numbers for student use in case of emergency, absence, etc.
7. Review the clinical keywords sent by the program to gain knowledge of what the student is learning didactically currently.

## Orientation

Preceptors should provide students with a comprehensive orientation to the site and the experience within the first few days of the rotation. The orientation should clearly outline expectations of the student and what the student may expect from the experience. Students should be informed of their role and responsibilities at the site as well as the role of the preceptor. The orientation should include general information such as introductions to professional and office staff, a tour of the facility, location of drugs, materials and equipment, ID badges, parking, and other relevant information. The orientation would also serve as an opportunity for preceptors to discuss the following with students:

1. The site's policies and procedures, as they apply to students including:
  - a. confidentiality
  - b. lines of authority
  - c. absence and tardiness procedures
  - d. safety and emergency procedures
2. Scheduling of student's hours.
3. The STUDENT CLINICAL GOALS AND OBJECTIVES for the experience as set forth by the College and the preceptor. Preceptors should ask the student if he or she has any goals of their own or specific areas of interest which might be incorporated into the experience.
4. How the experience will be structured and how the preceptor plans to work with students.
5. Activities the student can expect to do at the site (Department M&M meetings, resident lectures, etc.) which he or she will be required to attend/complete.
6. Expectations for the student to receive and request on-going informal feedback.

## Scheduling and Workload

The following policies apply to student scheduling and workload. Preceptors are encouraged to work with students when determining a work schedule.

1. Rotations are scheduled to start on the first working day of the month and end on the last working date. The preceptor can modify start and stop dates (must be within the month) at their discretion. For example, if the first working date is a Friday, the preceptor may have the student start on Monday. Preceptors are not required or expected to accommodate any student requests to change start and stop dates. Preceptors are expected to communicate any changes with the program administration.
2. Rotations are to be scheduled during the day Monday through Friday unless the learning needs of the student at the site are such that weekend or evening activities is necessary or beneficial (e.g. trauma rotation). Students should be informed in advance of the rotation if weekends or evening activities will be part of the experience. This allows time for the students to make appropriate arrangements with employment, childcare needs, or other personal issues.
3. Students are not allowed to receive compensation under any circumstances.

### *Policy Regarding Time Off During Clinical Rotations*

Due to the intensity of each rotation and the need to achieve the required objectives, it is advised that students avoid taking time away from their rotations. Students completing clinical rotations do not follow the regular academic calendar for NEOMED. Students are not allowed to take vacation time during their rotation schedule. However, it is recognized that students may need time off from rotations for professional or personal reasons. The following are the approved guidelines regarding absence from rotations:

1. Approvable absences from rotations are those which the preceptor/program faculty deems important to the professional development of the student (i.e., job interviews, attendance to a professional meeting) or for a personal illness or a family related emergency. Absences related to on campus activities such college committees are approvable at the discretion of the preceptor. Time off for personal vacations, weddings, honeymoons, family reunions, etc. are not considered valid reasons for taking time off from the rotation.

2. Students will be allowed no more than **FIVE (5) days** of approved absences including personal illness or emergencies from their assigned rotations over the first year of the program. Students will be allowed no more than **SEVEN (7) days** of approved absences including personal illness or emergencies from their assigned rotations over the second and third years of the program. These days are not meant to be an entitlement and cannot be used or saved for an extended break from rotations including personal or family vacations. Each student is responsible for assuring that the maximum number of days away from the 28-month program is not exceeded. Exceeding the maximum number days can result in a student not successfully completing the requirements of the program necessary for graduation.
3. Students with approved absences are expected to complete all rotation objectives responsibilities as assessed by the preceptor. The preceptor may require the student to make-up any absence time from the rotation.
4. Time off is to be taken only with the PRIOR approval of program and preceptor. The student is required to complete the "Absence Form" on CoreElms for approval and signature **FIVE (5) business days** before a planned absence. Students should not make any travel arrangements until they have received approval from program and preceptor to be absent.
5. Students are authorized specific holidays off from rotation (refer to the Academic Schedule for a list of approved student holidays). Preceptors should allow students to be off for these approved holidays.
6. In the case of personal illness or emergency, the student is required to notify the program and preceptor or his/her designee as soon as possible prior to the scheduled arrival time to the site. The method of notification (i.e., email, phone call) shall be predetermined by the program and preceptor and communicated to the student at the start of the rotation. If the student is absent for more than **TWO (2) days** from the rotation due to illness or emergency, both the preceptor



and the student must notify Program Director. The “Absence Form” in CoreElms must be completed upon the student’s return to the rotation.

7. Time off for religious reasons is allowed in accordance with NEOMED policy. Students requesting time for this reason are required to receive prior approval from the Program Director **TWO (2) months** prior to the start of the time off. The student is required to inform the preceptor of these approved absences upon initial notification of the preceptor. Students may be required to make up any missed time resulting from these types of absences at the discretion of the preceptor.
  
8. Unexcused absences include any failure to be present on a scheduled rotation day(s), failure to notify the program/preceptor of an illness or emergency in a reasonable period, or any absence that was not approved by the program/preceptor. Unexcused absences will not be tolerated and jeopardize the student’s successful completion of the program. Any unexcused absence may result in failure of the rotation in which it occurred. Preceptors should immediately notify the Program Director if such absences occur.
  
9. Time off requests for travel to or from a distant clinical rotation is to be arranged only within that rotation at the discretion of the program/preceptor. Generally, no more than **ONE (1) business day** should be taken for travel.
  
10. Preceptors should consult with the Program Director regarding any concerns surrounding a student’s absence from a rotation.

### **Evaluations and Grading**

Clinical Rotations are required courses within the College of Graduate Studies and students must treat them as they would any other course. Preceptors monitor student performance, identify strengths and

weaknesses, and provide necessary feedback to ensure student development in established competency areas.

- **Daily Evaluation:** Preceptors must complete a daily student evaluation in CoreElms for each student they precept. The evaluation consists of two brief questions, as well as a section for comments or suggestions for the student based off how they performed during the day. There is also an area in which preceptors can indicate that they would like to speak directly to a Program Director, so that they may communicate any major concerns. The Program Director will contact a preceptor directly following receipt of an evaluation with this action requested.
- **Final Evaluation:** The preceptor is required to complete a comprehensive final student evaluation during the last week of the rotation. Narrative comments are required to support “Unacceptable Performance” ratings.
- The final evaluation includes questions regarding the student's performance with specific tasks, as well as their display of knowledge and professionalism. Expectations for the student's specific rotation are stated clearly at the top of the evaluation.
- Preceptors are encouraged to comment on student needs to improve for subsequent rotations.
- The final evaluation should be reviewed and discussed directly with the student at the end of the rotation. It is important to complete the evaluation in a timely manner (within one week of the rotation completion) so the student's grade can be posted for the rotation.

### Grading Scale

Final grades for rotations will be based on an average score of all the components of the evaluation using the following scale:

4.0 – 5.0 – A    3.0 – 3.9 – B    2.0 – 2.9 – C    < 2.0 – Fail

Students are expected to start with a 3.0 score. If they do things particularly well, a score of 4.0 is appropriate. Students who perform in the top of their class in specific areas are the only 5.0 scores to be expected.

## Feedback

In addition to the guidelines above, preceptors should be aware that feedback is an integral part of the evaluative process and more importantly, integral to the development of the student. Effective feedback provides positive reinforcement for what the student is doing correctly and steps the student can take to improve those areas, which need improvement. Without appropriate feedback, students may miss crucial skills development and/or knowledge base enrichment. The following are some guidelines for preceptors reading feedback:

1. Students want to receive feedback on their performance - Students desire and expect preceptors to provide them feedback on their performance whether it is positive or negative. One can only improve or change if they are provided honest, specific, and timely feedback. It is suggested to tell the student "I want to give you some feedback..." before giving feedback.
2. Feedback should be specific and based on direct observation – Feedback should refer to actions that are specific and which the preceptor has observed first-hand.
3. Feedback should include positive aspects and areas for improvement – Ideally feedback should not just be all positive or all negative. Include both when you are discussing individual performance with a student. Some find it effective to "sandwich" negative feedback between positive feedback given at the beginning and the end.
4. Provide feedback in a consistent and timely manner – If possible, preceptors should provide feedback immediately after a task, patient-counseling session, or other activity. As this is not always possible, a time should be determined for providing feedback to the student, once a week for example "Feedback Friday". Preceptors should take notes as soon as possible after observing students and not rely on memory to ensure accurate and helpful feedback.
5. Feedback should focus on remediable behavior and should offer suggestions for improvement – Feedback should focus on behaviors that can be corrected. Feedback should not deal with assumed intentions or preceptor interpretations. Preceptors should provide suggestions to correct or improve the behavior; judgment statements should be avoided. Discussing the potential negative outcome of a certain behavior can help to explain to the student why a change is needed
6. A record of feedback should be saved – Preceptors should keep copies of all written feedback and forms completed. The Program may request copies of this documentation on as needed basis.

### Student Performance During the Rotation

Students are expected to maintain a high level of professionalism and demonstrate an acceptable level of competence in the practice and clinical skills necessary to becoming a C-AA. Successful completion of the rotations goals and objectives is a reliable measure of one's performance during a rotation. Since a student's level of competence in any specific skill may vary from their peers it is important that preceptors identify and work with their student on those skills needing improvement. Identifying those areas for improvement and discussing with the student as early as possible into the rotation will allow opportunity for the student to show improvement. The preceptor and student developing a plan with specific, measurable, attainable, relevant, and timely (S.M.A.R.T) goals is an ideal approach to help one meet the expectations of the rotation. This may require the student spending additional time mastering a particular activity or task (e.g., interviewing patients, answering key clinical questions, etc.). Providing effective feedback (see above) throughout this time is vital. Ideally the student should be allowed the time to demonstrate a progressive improvement in one's performance needed to successfully complete the rotation. The preceptor should consider the student's effort and degree of progression in mastering a skill when completing the daily, midpoint and final evaluations.

**Preceptors who are having difficulty with a student's performance, developing a plan for improvement, or believe improvement is not being achieved should contact the Program Director for assistance as soon as possible.**

In instances of unacceptable professional behavior or performance, the preceptor should contact the Program Director to report the situation and determine the appropriate actions to be taken. Actions may include immediate dismissal from the rotation and the student being referred to the NEOMED Council on Academic Performance & Professionalism.

For students who are performing at or above the rotation expectations the preceptor is encouraged to allow the student to participate in higher-level activities. This may include but not limited to a greater amount of independence (but still supervised) or mentoring/training other learners. In these situations, a preceptor should not feel limited by the established list of rotation objectives when working with high performing students. Providing feedback to the high performers is also essential during this time.

### *Student Evaluation of Preceptor*

- Following the completion of a clinical rotation, the student is required to complete an assessment of their preceptor, the rotation, and the site. The student will also provide a self-assessment following each rotation.
- Preceptors have access to the student assessment in the CoreElms system. The information should be utilized as a tool to make potential enhancements to their program.
- Preceptors who have a concerns or questions about the evaluations submitted by their student should contact the Program.

## STUDENT CLINICAL SKILLS GOALS AND OBJECTIVES

**“Student Checklist”** - Minimal clinical requirements to be eligible for graduation.

	Minimum
Total Anesthesia Cases	600
Total Hospital Hours	2500
Total Direct Patient Care Hours	2000
Patient ASA Class III & IV	150
ASA Class E	30
Trauma Cases	5
Ambulatory	100
<u>Patient Population</u>	
Geriatric (65+ years)	100
Pediatric (0-18 years)	50
2 – 12 years	30
Less than 2 years	10
<u>Patient Position</u>	
Prone	25
Lithotomy	35
Lateral	15
Sitting	10
Trendelenburg	5
<u>Anatomic Location Surgery</u>	
Intra-abdominal	75
Intracranial	10
Head and Neck Procedure	20

Oropharyngeal	10
Intrathoracic	20
Heart	10
Lung	10
Obstetric	35
Vascular	15
<u>Methods of Anesthesia</u>	
General	400
Induction, Maintenance & Emergence	
Mask Induction	35
Mask Management	30
Adults	5
Pediatric	25
Laryngeal Mask Airway Placement	35
Adults	20
Pediatric	15
Tracheal Intubation	255
Oral	250
Adults	200
Pediatric	40
Nasal	5
Emergence from Anesthesia	250
Regional Techniques	
Management/Administration	40
Administration	30
Spinal	10
Epidural	10
Peripheral Nerve Block	5

Monitored Anesthesia Care	30
<u>Other Anesthetic Management</u>	
Alternative Airway Management	
Fiberoptic, Lightwand, Bougie, Aintree Catheter	10
Endoscopic Techniques (Glidescope, C-Mac, etc.)	15
Bronchial Airway Management (DLT, bronchial blocker)	5
<u>Arterial Technique</u>	
Arterial Puncture/Catheter Insertion	25
Intra-Arterial Blood Pressure Monitoring	30
<u>Central Venous Catheter</u>	
Placement	5
Monitoring	15
<u>Other</u>	
Intravenous Catheter Placement	
Adult	200
Pediatric	40
Nasogastric/ Oral gastric Tube Placement	5



## **CLINICAL PERFORMANCE GOALS AND OBJECTIVES**

Each student is to aspire to clinical excellence by attaining performance goals and standards set forth by the Clinical Progress and Promotion Committee. Successful completion of clinical goals should be measurable, thereby giving the student meaningful feedback concerning clinical performance, and also allowing each student to obtain the requirements set forth by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) and the Accreditation Review Committee for the Anesthesiologist Assistant (ARC-AA).

Systematic acquisition of these clinical skills is monitored by a checklist of student achievement, which is supervised by clinical instructors. Completing the checklist is the responsibility of the student. This checklist must be completed prior to graduation from the program.

The following goals are minimum standards for clinical performance at distinct intervals of training. A novice level of training should not limit participation in procedures/tasks that are considered more appropriate for advanced students. Demonstrated clinical excellence allows for participation in more complicated cases (pediatric, ASA III & IV).

## **FIRST YEAR- 1ST SEMESTER**

By the end of the first semester, first year, students should strive to be 70% successful when performing the following tasks with frequent assistance (defined as “supervision 100% of the time and technical support 75% of the time given by the instructor”):

- Venous cannulation and fluid therapy on adult patients.
- Airway management on anesthetized adult patients.
- Laryngoscopy and endotracheal intubation on anesthetized, adult patients with Mallampati Class I or II airways.
- Timely and accurate completion of the intraoperative record with zero incomplete required areas.
- Anesthesia machine checkout and appropriate room setup for (ASA I & II) adult general anesthesia management.
- Placement of laryngeal mask airway (LMAs) in adult patients.

### **Further student expectations in the first year, first semester clinical rotation include:**

1. Successful placement of intravenous cannulas in adult patients given the following criteria:
  - a. An appropriate vein and catheter size should be chosen.
  - b. The catheter must be inserted successfully within a reasonable number of attempts.
  - c. The field should be relatively blood-free during and after insertion.
  - d. Tubing connections should be tight with no blood or fluid actively leaking.
  - e. The fluid infusion should be run at appropriate rate.
  - f. The work area should be cleaned as needed.
  - g. The patient’s fluid deficit and replacement plan should be calculated and presented.
  - h. The maximum allowable blood loss for the case should be calculated and presented.
2. Successful completion of general anesthetics on adult patients managed with mask assisted spontaneous respiration given the following criteria:
  - a. An appropriate patient is chosen for mask maintenance.

- b. An appropriate mask size is chosen.
  - c. Assisted spontaneous ventilation is achieved and managed.
  - d. Airway obstruction is recognized and appropriate maneuvers to correct are taken.
  - e. The student responds appropriately and promptly to changes in patient's status (change in BP, HR, O2 Sat, Temp, Ventilation and Heart Rhythm).
3. Successful endotracheal intubation on adult patients with Mallampati Class I or II airways given the following criteria:
- a. An appropriately sized ETT is chosen.
  - b. An Appropriate size and style of blade is chosen.
  - c. The tube is atraumatically inserted within a reasonable number of attempts.
  - d. Tube placement and position is confirmed using multiple acceptable methods (breath sounds, capnography, etc.).
  - e. Tube is adequately secured in timely manner.
  - f. The transition to adequate mechanical ventilation is achieved.
4. Adequate completion of intra-operative record for uncomplicated cases given the following criteria:
- a. The record is neat and legible (when paper record is utilized).
  - b. All drug therapy, patient intervention, vital signs, etc. are recorded accurately and completely.
  - c. The student keeps current with charting and does not lag.
  - d. No incomplete portions of record exist on the final version.
  - e. The records are appropriately filed postoperatively.
  - f. The student continues monitoring patient while finishing record.
5. Appropriate setup of the anesthesia machine and workspace for (ASA I & II) adult general anesthetics given the following criteria:
- a. Check for adequate suction.
  - b. Check O2 cylinder supply.
  - c. Check O2 pipeline supply.

- d. Check vaporizer levels.
  - e. Calibrate O2 sensor to room air.
  - f. Check flow meters.
  - g. Install and check the patency of appropriate breathing circuit.
  - h. Verify the CO2 absorber is adequate.
  - i. Verify the integrity of the APL valve and the scavenging system.
  - j. Test the ventilator system.
  - k. Check the integrity of all monitors to be used for case.
  - l. Have appropriate emergency drugs available.
  - m. Have appropriate intravenous induction and maintenance drugs available.
  - n. Have appropriate airway equipment available.
  - o. Have appropriate intravenous fluids available.
6. Successful placement of laryngeal mask airways (LMAs) in adult patients given the following criteria:
- a. The LMA is placed without trauma.
  - b. No leak is present after cuff inflated (when cuffed LMAs are utilized).
  - c. LMA is taped securely.
  - d. Assisted spontaneous ventilation is achieved and appropriately managed.

## **FIRST YEAR- 2ND SEMESTER**

By the end of the 2nd semester, first year, students should strive to be 80% successful when performing the following tasks with moderate assistance (defined as “supervision 100% of the time with technical support 50% of the time given by the clinical instructor”):

- Venous cannulation and fluid therapy on adult patients.
- Airway management on anesthetized adult patients.
- Laryngoscopy and endotracheal intubation on anesthetized adult patients with Mallampati Class I or II airways.
- Accurate completion of the intraoperative record with no incomplete areas.
- Anesthesia machine checkout and appropriate room setup for anesthetic management.
- Placement of laryngeal mask airways in adult patients.
- Closely supervised involvement with pediatric airway management and venous cannulation.

### **Further student expectations in the first year, second semester clinical rotation include:**

1. Successful placement of intravenous cannulas with calculation of fluid deficit/replacement and maximum allowable blood loss for adult patients.
2. Successful completion of general anesthetics on adult patients managed with mask assisted spontaneous respirations.
3. Successful endotracheal intubations on adult patients.
4. Adequate completion of intraoperative record for uncomplicated cases.
5. Appropriate setup of anesthesia machine and workspace for uncomplicated general anesthetics.
6. Successful placement of laryngeal mask airways in adult patients.

## **FIRST YEAR- 3RD SEMESTER**

By the end of the 3rd semester, first year, students should strive to be 90% successful when performing the following tasks with minimal assistance (defined as “supervision 100% of the time with technical support 25% of the time given by the clinical instructor”):

- Venous cannulation and fluid therapy on all adult and pediatric patients.
- Airway management on all awake and anesthetized, adult, and pediatric patients.
- Laryngoscopy and endotracheal intubation on all anesthetized adult and pediatric patients.
- Anesthesia machine checkout and appropriate room setup for all adult and pediatric general anesthesia management.
- Preoperative interview/physical examination and subsequent development of anesthetic plan in conjunction with attending anesthesiologist and anesthesiologist/resident/fellow for uncomplicated (ASA I & II) adult and pediatric patients.
- Placement of laryngeal mask airways in pediatric patients.

### **Further student expectations in the first year, third semester clinical rotation include:**

1. Successful placement of intravenous cannulas on all adult and pediatric patients.
2. Successful completion of general anesthetics on all adult and pediatric patients managed with mask assisted spontaneous respirations.
3. Successful endotracheal intubations on all adult and pediatric patients.
4. Appropriate setup of anesthesia machine and workspace for all adult and pediatric patients.
5. Completed preoperative interview/examination on all adult and pediatric patients given the following criteria:
  - a. Complete review of all physiologic systems by patient interview and review of old/current records including previous medical history, history of present illness, current vital statistics, blood chemistries, diagnostic tests, and pertinent medical consultations.
  - b. Physical examination focused on heart, lungs, and airway.

- c. Patient interview focused on NPO status, allergies, family history and personal history of previous anesthetics and current pharmaceutical therapies.
  - d. Thorough discussion of anesthetic plan, options, risks, complications, and benefits.
  - e. Developing plan with attending anesthesiologist and anesthesiologist/resident/fellow.
6. Successful placement of laryngeal mask airways in all adult and pediatric patients.

## **FIRST YEAR- 4th SEMESTER**

By the end of the 4th semester, first year, students should strive to be **95%** successful when performing the following tasks with minimal assistance (defined as “supervision 100% of the time with technical support 20% of the time given by the clinical instructor”):

- Venous cannulation and fluid therapy on all adult and pediatric patients.
- Airway management on all awake and anesthetized, adult, and pediatric patients.
- Laryngoscopy and endotracheal intubation on all anesthetized adult and pediatric patients.
- Anesthesia machine checkout and appropriate room setup for all adult and pediatric general anesthesia management.
- Preoperative interview/physical examination and subsequent development of anesthetic plan in conjunction with attending anesthesiologist and anesthetist/resident/fellow for uncomplicated (ASA I & II) and semi-complicated (ASA III) adult and pediatric patients.
- Completion of intraoperative handoffs and verbal report to PACU staff.
- Placement of laryngeal mask airways in pediatric patients.

### **Further student expectations in the first year, fourth semester clinical rotation include:**

1. Successful placement of intravenous cannulas on all adult and pediatric patients.
2. Successful completion of general anesthetics on all adult and pediatric patients managed with mask assisted spontaneous respirations.
3. Successful endotracheal intubations on all adult and pediatric patients.
4. Appropriate setup of anesthesia machine and workspace for all adult and pediatric patients.
5. Completed preoperative interview/examination on all adult and pediatric patients.
6. Completed intraoperative handoffs and verbal report to PACU staff given the following criteria:
  - a. Complete review of all pertinent information determined through patient interview and review of old/current records including patient’s allergy status, previous medical history,



history of present illness, and preoperative presentation including patient orientation, vital statistics, and blood chemistries.

- b. Thorough discussion and review of anesthetic record, in particular relevant medications and line placement.
  - c. Documentation of postoperative vital signs when applicable.
7. Successful placement of laryngeal mask airways in all adult and pediatric patients.

## SECOND YEAR and THIRD YEAR (4 months of 3<sup>rd</sup> year)

By the end of 2<sup>nd</sup> and 3<sup>rd</sup> year, the students should strive to be 95% successful when performing all the previous mentioned tasks, in addition, with rare assistance (defined as “supervision 100% of the time with technical support 10% by clinical instructor).

- Arterial cannulation.
- Central venous cannulation.
- Lumbar epidural catheter placement and management.
- Spinal block placement and management.
- Regional anesthetic placement/assistance with placement and management.
- Nasotracheal intubation.
- Endobronchial tube placement.
- ~~Nasal and oral~~ gastric tube placement.
- Management of Monitored Anesthetic Care.
- Management of outpatient/ASC anesthetics.
- Management of Cardiac anesthetics.
- Management of Thoracic anesthetics.
- Management of Obstetric anesthetics.
- Management of Pediatric anesthetics.
- Management of Neuro anesthetics.
- Management of Trauma anesthetics.
- Management of Vascular anesthetics.
- Management of Geriatric anesthetics.

### **Further student expectations in the second and third-year clinical rotations include:**

1. Successful placement of **arterial catheter** within a reasonable number of attempts given the following criteria:
  - a. An appropriate vessel is chosen for insertion.
  - b. An appropriate catheter is chosen.
  - c. Aseptic/sterile technique is maintained.
  - d. Transducer tubing connected with minimal blood loss.

- e. The catheter and tubing are secured adequately.
  - f. The transducer is zeroed properly.
2. Successful placement of **central venous catheter** (including pulmonary artery catheter) within a reasonable number of attempts (includes via ultrasound), (guide) wire inserted, catheter inserted over (guide) wire and (guide) wire removed given the following criteria:
- a. An appropriate vessel is chosen for insertion.
  - b. An appropriate catheter is chosen.
  - c. Aseptic/sterile technique is maintained.
  - d. The catheter and tubing are secured adequately.
3. Successful placement of **lumbar epidural** within a reasonable number of attempts given the following criteria:
- a. Aseptic/sterile technique is maintained.
  - b. The appropriate level is chosen.
  - c. The dura is not punctured.
  - d. Catheter placed at appropriate depth with no persistent paresthesia elicited.
  - e. Negative heme, negative test dose.
  - f. Appropriate local anesthetic chosen with appropriate dose given.
  - g. Catheter adequately secured.
  - h. The level of analgesia is deemed adequate.
  - i. Follow up management of the epidural is appropriate.
4. Successful placement of **spinal injection** within a reasonable number of attempts given the following criteria:
- a. Aseptic/sterile technique is maintained.
  - b. The appropriate level and spinal needle are chosen.
  - c. The dura is punctured.
  - d. No persistent paresthesia elicited.
  - e. Appropriate local anesthetic chosen with appropriate dose given.
  - f. The level of anesthesia/analgesia is deemed adequate.
  - g. Follow up management of the spinal is appropriate.

5. Successful placement/assistance with placement of **regional anesthetics** (Bier block, brachial plexus blocks, femoral blocks, etc.) given the following criteria:
  - a. Standard practice is followed.
  - b. Adequate surgical anesthesia/analgesia is obtained.
  
6. Successful placement of adult and/or **nasotracheal tube** within a reasonable number of attempts given the following criteria:
  - a. Appropriately sized nasotracheal tube is selected.
  - b. Magill forceps are used effectively when needed.
  - c. Tube insertion is atraumatic.
  - d. No epistaxis is noted.
  - e. Tube secured adequately.
  
7. Successful placement of **endobronchial tube (and/or endobronchial blocker)** within a reasonable number of attempts given the following criteria:
  - a. Appropriately sized tube is chosen.
  - b. Proper tube placement is verified by fiberoptic bronchoscopy.
  - c. Tube is secured adequately.
  - d. Student shows working knowledge of both one lung and two lung ventilation management principles.
  
8. Successful placement of **nasal (and/or oral) gastric tube** given the following criteria:
  - a. Appropriately sized tube is chosen.
  - b. Appropriate nostril is chosen/prepped.
  - c. No epistaxis noted.
  - d. Tube is inserted to proper depth and adequately secured.
  
9. Anesthetic management of patients for **monitored anesthesia care** as a member of the anesthesia care team.
  
10. Anesthetic management of patients for **outpatient (ambulatory surgical center)** as a member of the anesthesia care team.

11. Anesthetic management of patients for **non-operating room procedures (NORA)** as a member of the anesthesia care team.
12. Anesthetic management of patients for **cardiac** surgery as a member of the anesthesia care team.
13. Anesthetic management of patients for **thoracic** surgery as a member of the anesthesia care team.
14. Anesthetic management of patients for **vascular** surgery as a member of the anesthesia care team.
15. Anesthetic management of patients for **trauma** surgery as a member of the anesthesia care team.
16. Anesthetic management of patients for **neurosurgery** as a member of the anesthesia care team.
17. Anesthetic management of patients for **pediatric** surgery as a member of the anesthesia care team.
18. Anesthetic management for **geriatric** patients for all surgical specialties as a member of the anesthesia care team (patients in this category can also be counted toward requirements in preceding categories).