



M I D D L E T E N N E S S E E  
SCHOOL OF ANESTHESIA

NDREG 600 Regional Foundations Syllabus

Fall Semester, 2024 – September 3 to December 12, 2024

**Course Code & Name:** NDREG 600 Regional Foundations

**Instructor(s):**

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**MTSA Office Hours:** Monday through Thursday – 8am to 6pm

Please contact instructor to schedule an appointment.

**Course Description:**

The Regional Anesthesia Foundations Class is a comprehensive 15-week post-graduate course designed for CRNAs seeking to broaden their scope of practice by incorporating regional anesthesia. This course covers a wide variety of regional anesthesia related topics, including ultrasound principles, neuromuscular functional assessment, local anesthetic dosing, peripheral nerve blocks commonly used in the perioperative management of patients, and postoperative considerations. It combines online didactic lectures and interactive synchronous events to ensure a thorough learning experience. The course culminates in a hands-on cadaveric workshop, providing a practical application to reinforce your understanding of anatomy, physiology, and pharmacology specific to regional anesthesia.

**Course Credit:** 3 Credit Hours

**Required Texts:**

1. Elisha, S., Heiner, J.S., Nagelhout, J.J. (2022). *Nurse Anesthesia* (7<sup>th</sup> ed). Elsevier.
2. Hadzic, A. (2021). *Peripheral Nerve Blocks and Anatomy for Ultrasound-Guided Regional Anesthesia* (3<sup>rd</sup> ed). McGraw Hill / Medical
3. Hansen JT, Machado CAG, Dragonfly Media Group. *Netter's Anatomy Coloring Book*. Elsevier; 2022.
4. Hansen JT. *Netter's Anatomy Flash Cards E-Book*. Elsevier Health Sciences; 2017.

**Suggested Texts or Additional Suggested Reading Material:**

1. Hadzic, A. (2017). *Hadzic's Textbook of Regional Anesthesia and Acute Pain Management: Self-Assessment and Review* (2<sup>nd</sup> ed.). McGraw Hill / Medical.
2. Netter FH. *Netter Atlas of Human Anatomy: A Systems Approach*. Eighth edition. Standard ed. Philadelphia PA: Elsevier; 2023.
3. Farag E Mounir-Soliman L Brown DL. *Brown's Atlas of Regional Anesthesia*. Sixth ed. Philadelphia Pennsylvania: Elsevier; 2022.
2. Websites: [www.nysora.com](http://www.nysora.com), [www.usra.ca](http://www.usra.ca), [www.neuraxiom.com](http://www.neuraxiom.com), [www.vaulttrasound.com](http://www.vaulttrasound.com)
5. iTunes apps: ASRA Coags, Complete Anatomy '23, Regional Anesthesia Reference

**Course Objectives:**

The course objectives below were pulled from the SU-2023 syllabus. They have not been reviewed by NAPC. In the future, course learning objectives will be reviewed by NAPC, and the Registrar's Office will add the approved course objectives here, followed by the DSLOs covered with each.

A resource to help write learning objectives

[https://sc.edu/about/offices\\_and\\_divisions/cte/teaching\\_resources/course\\_design\\_development\\_delivery/learning\\_outcomes/](https://sc.edu/about/offices_and_divisions/cte/teaching_resources/course_design_development_delivery/learning_outcomes/)

Upon successful completion of this course, you will be able to:

1. State the indications and contraindications for common regional anesthesia procedures. (DSLO 14, 23, 35, 44, 45, 46)
2. State the advantages of ultrasound-guided regional anesthesia techniques over traditional landmark approaches. (DSLO 14, 23, 35, 44, 45, 46, 49)
3. Conduct a functional neurological assessment while explaining neurotransmitters and receptors associated with pain. (DSLO 14, 23, 26, 35, 44, 45, 46)
4. Compare and contrast spinal and epidural anesthesia; list the indications, contraindications, pharmacologic considerations, and complications of each. (DSLO 14, 23, 33, 35, 44, 45, 46, 49)
5. Discuss the various approaches for procedures involving the brachial plexus, lumbar and sacral plexi, and truncal regions to include pharmacologic dosing and the management of complications. (DSLO 14, 23, 33, 35, 44, 45, 46, 49)
6. Describe the indications and techniques for intravenous regional anesthesia, to include pharmacologic dosing and the management of complications. (DSLO 14, 23, 33, 35, 44, 45, 46, 49)
7. Compare and contrast chronic and acute pain and the management implications of each. (DSLO 14, 23, 33, 35, 44, 45, 46)

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Click the link below to access a full list of the COA Doctoral Student Learning Objectives.

<https://mtsa-dnarc.cleancatalog.net/outcome-criteria-upon-completion-of-program>

### **Learning Activities:**

The format for the course is hybrid, with online lectures and assignments combined with live synchronous events. Learning assessments are administered throughout the course to demonstrate a mastery of the objectives. A grade of “C” is considered a passing grade for the course. Although the coursework is designed to be self-paced, there are required synchronous activities arranged by the course instructor.

### **Teaching Methods**

- Voice over PowerPoint lectures
- Synchronous events via TEAMS
- End-of-module examinations
- Essentials of USGRA Cadaveric Workshop

### **GRADING SYSTEM:**

|                           |            |
|---------------------------|------------|
| Module Exams              | 50%        |
| Synchronous Events        | 10%        |
| Written Assignments       | 20%        |
| <u>Cadaveric Workshop</u> | <u>20%</u> |
|                           | 100%       |

### **End-of- Module Examinations (50%)**

The course contains end-of-module exams for students to demonstrate content mastery. To receive full credit, exams must be completed prior to the corresponding synchronous event.

### **Written Assignments (20%)**

Students will submit written case presentations prior to the end of module synchronous event detailing the perioperative pain management plan of a patient related to the module content. Students are expected to discuss their plans at the end of module synchronous events. All written assignments must include references.

### **Synchronous Event Attendance (10%)**

At the end of each module, students are expected to attend on camera and participate in a live synchronous event with course faculty. If a student is unable to attend an online event, they must notify the course faculty at least 24 hours prior. To receive credit for a missed synchronous event, the student must watch the recording of the event and **submit a one-page paper relating**

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**the topic to their current clinical practice within 48 hours of the event**, written in AMA format, to include references.

### **Cadaveric Workshop (20%)**

Students are required to attend an Essentials of USGRA Cadaveric Workshop at the end of the course. During the cadaveric workshop, students will complete a competency-based evaluation to demonstrate proficiency in safe ultrasound-guided regional anesthesia techniques.

### **Late Work:**

Assignments submitted after the due date will receive a grade no higher than 80%. Failure to submit any assignment by end of course without a request for an extension will result in a failing grade. [Grading Policy](#)

### **GRADE OF INCOMPLETE (I)**

If a student is unable to meet the requirements of a course by the end of the semester, the temporary grade of Incomplete (I) may be awarded by an instructor at the instructor's discretion. An incomplete grade requires written understanding between the instructor and student acknowledging when the course will be completed. To be awarded an Incomplete grade, the Incomplete Contract must be signed by the student, instructor, and Program Director and submitted to the Registrar's office by the last day of the semester.

The maximum time limit for submission of all course work necessary for removal of an incomplete is the end of the last day of classes of the following semester in which the incomplete was incurred (i.e. an incomplete awarded in the 2<sup>nd</sup> semester must be converted by the last day of classes in the 3<sup>rd</sup> semester). If the time limit passes and the course is not completed, the grade of incomplete is changed automatically to a failing grade. Any failing grade will result in termination from the program. A grade of incomplete is not calculated in the grade point average. No student may graduate with an Incomplete on their transcript.

# Policies and Procedures

## Non-Degree Course Grading Policy

Students can view their final grades for each semester anytime by visiting the transcript section of the CAMS Student Portal <https://student.mtsa.edu/>.

The grading scale is based on the following 4.0 grading system:

|    |                  |                                     |
|----|------------------|-------------------------------------|
| A  | 90-100%          | (4.0 Quality Points)                |
| B  | 80-89.9%         | (3.0 Quality Points)                |
| C  | 70-79.9%         | (2.0 Quality Points)                |
| F  | Below 70%        | (0.0 – Failing)                     |
| W  | Withdrew         | See Grade of Withdrew below         |
| WF | Withdrew Failing | See Grade of Withdrew Failing below |
| T  | Terminated       | See Terminated below                |

No grades, including final grades, will be rounded up.

(There is no grade of “D” in the Grading Scale)

### Withdrawing from a Course

Students may drop a course within the first 5 MTSA business days of the semester with no grade.

#### Grade of Withdrew (W)

Students wishing to withdraw from the course after the first 5 MTSA business days of the semester will either receive a grade of “W” or “WF.” To receive a W grade, a student must drop the course within the first 60% of the semester. A “W” grade does not impact a student’s GPA.

#### Grade of Withdrew Failing (WF)

Students wishing to withdraw from the course after the deadline to withdraw with a “W” grade (see above) will receive a grade of “WF.” A WF grade is calculated into a student’s GPA as a failing grade (F).

#### Terminated (T)

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An administratively terminated student is issued a final grade of "T" for all courses in which he/she is currently enrolled, and the termination is noted on the student's transcript.

### **Grade Appeal/Grievance Process:**

Please refer to the *MTSA Student Handbook* for the Grade Appeal Policy (link below).

<https://mtsa-aspmf.cleancatalog.net/student-appeals>

### **Communication Expectations:**

Students are expected to respond to emails from MTSA staff and faculty within two MTSA business days.

### **Technical Support:**

If you have problems with your computer, technology, IT-related questions, including those related to Brightspace, please contact the IT Team at [itsupport@mtsa.edu](mailto:itsupport@mtsa.edu) or submit an [IT Support Request](#).

### **Non-Degree Course Refund Policy**

Any student who wishes to withdraw from a community course must notify the instructor in writing of this action.

#### **Refund Policy**

MTSA will permit any student to cancel their enrollment agreement in a non-degree course within five MTSA business days of the enrollment day. Should a cancellation occur, MTSA will refund 100% of the tuition payment that was made by the student, minus the non-refundable portion (30%) submitted to hold the student's position in the class. Students withdrawing for medical reasons are assessed and adjusted no differently than other withdrawals.

Students who withdraw after this deadline will not receive a refund.

#### **Determination of the Withdrawal Date**

The student's withdrawal date is the date the student submits the signed withdrawal form to the Registrar's Office.

#### **Administrative Withdrawal**

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Students may be administratively withdrawn from a course for non-attendance/participation. Any student who does not attend/participate in the course within 5 MTSA business days will be administratively withdrawn from the course.

Students will not receive a refund if Administratively Withdrawn.

### **MTSA Internal Withdrawal Procedure:**

1. Notify in writing the instructor who will in turn notify the Program Director and Registrar of your intent to withdraw.
2. Schedule an appointment with the Executive Vice President if requested.
3. The Registrar sends the student the withdrawal form to complete and sign electronically.
4. After the student signs, the completed form is sent to the instructor for signature.
5. The withdrawal process will be initiated upon receipt of the completed withdrawal form.

### **Plagiarism, Cheating or Lying Involving Any Clinical, Academic, Or School Endeavor:**

Any student cheating on any test, exam, quiz, or assignment; who has falsified clinical documents, such as clinical evaluations or any other documentation; falsified signatures; or who has plagiarized any assignment, will be placed on immediate probation, with the recommendation for termination from the program. The case will be heard by the Progressions Committee and the Committee will make a determination of the recommendation for termination.

Plagiarism, which is defined as “the unauthorized use or close imitation of the language and thoughts of another author and the representation of them as one's own original work,” is a form of cheating, and is subject to disciplinary action including termination.

Click the link below to review the Academic Integrity Policy in the Student Handbook.  
<https://mtsa-aspmf.cleancatalog.net/academic-integrity-policy>

### **Honor Code:**

As a student of Middle Tennessee School of Anesthesia, I will incorporate the principles of truth, honor, integrity, and virtue in all that I do while enrolled. I acknowledge the Honor Code as vital in fostering an environment of trust, order, and unity within the School. I accept the sacred trust placed in me to continue this heritage of honor in my efforts to become a competent nurse anesthetist. I freely pledge to abide by the MTSA Standards of Conduct and this Honor Code in all of my conduct. I understand that a violation of this Honor Pledge will result in disciplinary action up to and excluding dismissal from the program.

Click the link below to review the entire Honor Code in the Student Handbook.

<https://mtsa-aspmf.cleancatalog.net/honor-code>

**Americans With Disabilities Statement:**

MTSA complies with the Americans with Disabilities Act (ADA). To ensure equal opportunity for all qualified persons, students with documented disabilities requiring accommodation have access to support personnel within the Office of the Executive Vice President. An agent of this office will collaborate with other faculty and staff as necessary to provide reasonable accommodations for courses and examinations. Accommodations help qualified students with disabilities access resources to assist them in meeting the technical standards for nurse anesthesia program admission, continuation, and graduation.

Requests for accommodation of a disability must be made in a timely manner to the Office of the Executive Vice President. Accommodations provided by MTSA are not retroactive.

Students who receive accommodations are responsible for notifying instructors before beginning each course.

Click the link below to view the Accommodations Policy in the Student Handbook.

<https://mtsa-aspmf.cleancatalog.net/accommodation-requests>