



Advanced Physiologic Foundations for Nursing Practice Syllabus

Spring Semester, 2025 – January 6 to April 17, 2025

Course Code & Name: UCNAP 500 Advanced Physiologic Foundations for Nursing Practice

Instructor(s):

Brett Clay, DNAP, CRNA, APRN

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MTSA Office Hours:

Please contact instructor to schedule an appointment.

Course Description:

This course addresses advanced human physiologic concepts at the system, organ, cellular, and subcellular levels, with the overall goal to enhance the learner's foundation for nursing practice. Emphasis is on integration of concepts as a basis for understanding interrelationships among complex physiologic processes. This course may strengthen the learner's application for a nurse anesthesia program, but satisfactory completion of the course does not guarantee acceptance into a program as acceptance is based on a number of factors.

Course Credit: 3 credit hours

Suggested Texts:

1. Hall JE, Hall ME. *Guyton and Hall Textbook of Medical Physiology*. 14th Edition. Edinburgh, London: Elsevier; 2020.

2. SeeleD < 9 pprs' rs á . ti Ma a

Topic Outline

Week & Dates	Topic(s)	Student Activities
Week 1 1/6/25 to 1/12/25	Cell structures and functions Cell metabolism Cell membrane transport mechanisms	Take quiz on Brightspace after watching lecture

<p>Week 10 3/10/25 to 3/16/25</p>	<ul style="list-style-type: none"> • Microcirculation • RBCs, hemoglobin, iron, oxygen and CO2 transport 	<p>*There is no quiz this week</p>
<p>Week 11 3/17/25 to 3/23/25</p>		<p>Examination #3</p>
<p>Week 12 3/24/25 to 3/30/25</p>	<ul style="list-style-type: none"> • Hemostasis and coagulation • WBCs, Inflammation, Immunity 	<p>*There is no quiz this week</p>
<p>Week 13 3/31/25 to 4/6/25</p>	<ul style="list-style-type: none"> • Renal system 	<p>*Take quiz on Brightspace after watching lecture</p>
<p>Week 14 4/7/25 to 4/13/25</p>	<ul style="list-style-type: none"> • Acid-Base balance 	

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)

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-dnappd.cleancatalog.net/student-appeals>

Communication Expectations:

Students are expected to respond to email 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 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.

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

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