

LONG SIGNATURE SHEET



UNC CHARLOTTE

Proposal Number: SON 11-12-11

Proposal Title Revision of the Nurse Anesthesia Major & Post Masters Certificate in Nurse Anesthesia

Originating Department School of Nursing

TYPE OF PROPOSAL: UNDERGRADUATE _____ GRADUATE UNDERGRADUATE & GRADUATE _____
 (Separate proposals sent to UCCC and Grad. Council)

DATE RECEIVED	DATE CONSIDERED	DATE FORWARDED	ACTION	SIGNATURES
11-18-11	11-29-11	12-1-11	Approved	<u>DEPARTMENT CHAIR</u> Dee Baldwin 12/1/11 [print name here]
5 Dec 11	12 Dec 11	12 Dec 11	Approved	<u>COLLEGE CURRICULUM COMMITTEE CHAIR</u> [Signature] Print name: Michael Thompson
	1/5/12	1/25/12	Approved	<u>COLLEGE FACULTY CHAIR</u> [Signature] Print name: CYNTHIA L. TOTH
		1-29-12	Approved	<u>COLLEGE DEAN</u> [Signature] Print name here if signing on behalf of Dean:
			Approved	<u>UNDERGRADUATE COURSE & CURRICULUM COMMITTEE CHAIR</u> (for undergraduate courses)
2-1-12	3-13-12	4-27-12	Approved	<u>GRADUATE COUNCIL CHAIR</u> (for graduate courses) [Signature]
			Approved	<u>FACULTY GOVERNANCE SECRETARY</u> (noting Faculty Council approval on Consent Calendar)
				<u>FACULTY EXECUTIVE COMMITTEE</u> (if decision is appealed)

University of North Carolina at Charlotte

Revised Graduate Course and Curriculum Proposal from the School of Nursing

Revision of the Nurse Anesthesia Major and Post Masters Certificate in Nurse Anesthesia

1. **SUMMARY.** The School of Nursing proposes to revise course descriptions and course objectives of the Nurse Anesthesia major and the Post Masters Certificate to reflect changes in the profession and to enhance focus on diversity, age, and genetics. This proposal applies to both MSN and Post Masters Certificate curricula since Post Masters Certificate students are required to complete the entire Nurse Anesthesia specialty courses (NUAN prefix) with the MSN students. Course objectives were modified to reflect advances in the field and an enhanced focus on diversity, age, and genetics.

PROPOSED CATALOG COPY. Copy should be provided for all courses in the proposal. Include current subject prefixes and course numbers, full titles, credit hours, prerequisites and/or corequisites, concise descriptions, and an indication of when the courses are to be offered as to semesters and day/evening/weekend.

NUAN 6151. Principles of Nurse Anesthesia I. (3) Co-requisite: ~~Prerequisite:~~ NUAN 6156. Overview of the principles, techniques and equipment necessary for the administration of anesthesia for the general surgical client. *(Fall; Day)*

NUAN 6152. Principles of Nurse Anesthesia II. (3) Prerequisite: NUAN 6151. This course provides nurse anesthesia students with specific ~~Specific~~ techniques of nurse anesthesia practice for selected clients. *(Spring; Day)*

NUAN 6153. Principles of Nurse Anesthesia III. (3) Prerequisite: NUAN 6152. Advanced nurse anesthesia practice for selected patients. ~~clients-~~*(Summer; Day)*

NUAN 6154. Pharmacology of ~~for~~ Non Anesthetic Agents. (4) Prerequisite: NUAN 6156 or ~~Permission of the department.~~ Introduction to the pharmacology of anesthetic drugs and adjunctive agents, including general pharmacological principles, pharmacokinetics and ~~pharmacodynamics.~~ An exploration of pharmacological concepts and clinical application of non-anesthetic drugs and adjunct agents commonly used in the anesthetic arena. *(Spring; Day)*

NUAN 6155. Pharmacology in Anesthetic Agents. (4) Prerequisite: NUAN 6154. Co-requisite: ~~Prerequisite:~~ NUAN 6156 ~~Continuation of Pharmacology I with emphasis on the clinical use of anesthetic agents and adjunctive drugs.~~ *(Fall)* An exploration of the pharmacological concepts and clinical application of anesthetic drugs. *(Fall; Day)*

NUAN 6156. Applied Physics and Chemistry in Nurse Anesthesia. (3) Prerequisite: Admission to the major. ~~Permission of the department.~~ Basic laws and principles of physics, inorganic, organic, and biochemistry ~~chemistry and organic chemistry~~ as they apply to the clinical practice of nurse anesthesia. (Fall; Day)

NUAN 6157. Applied Pathophysiology in Nurse Anesthesia I. (3) Prerequisite: BIOL 6273. A study of basic concepts of the pathophysiologies of the nervous, respiratory, cardiac, renal, and endocrine systems with emphasis on their anesthetic implications. ~~Pathophysiology of the nervous and cardiovascular systems with emphasis on their anesthetic implications.~~ (Spring; Day)

NUAN 6158. Applied Pathophysiology in Nurse Anesthesia II. (3) Prerequisite: NUAN 6157. A study of advanced concepts of the pathophysiologies of the nervous, respiratory, cardiac, and hepatobiliary systems, emphasizing anesthetic implications and management. ~~Pathophysiology of the respiratory, endocrine, excretory and renal systems with emphasis on their anesthetic implications~~ (Fall; Day)

NUAN 6171. Professional Aspects of Nurse Anesthesia I. (1) Corequisites: NUAN 6153 and 6485. ~~Overview of the legal, ethical, and professional aspects regarding the practice of nurse anesthesia and information about the American Association of Nurse Anesthetists, including its history and Councils on Accreditation, Licensure, and Practice.~~ Overview of the professional aspects of nurse anesthesia practice including history of the profession and professional associations, legal aspects, risk management, and the professional role. (Fall; Day)

NUAN 6172. Professional Aspects of Nurse Anesthesia II. (1) Prerequisite: NUAN 6171. Corequisite: NUAN 6486. Overview of the professional aspects of nurse anesthesia practice including economic considerations, political challenges, evolving role in the health care system, administrative responsibilities, practice regulations, and ethical principles. ~~legal, ethical, and professional aspects regarding the practice of nurse anesthesia and information about the American Association of Nurse Anesthetists, including its history and Councils on Accreditation, Certification Licensure, and Practice.~~ (Spring; Day)

NUAN 6485. Clinical Residency in Nurse Anesthesia I. (5) Prerequisite: NUAN 6153 and satisfactory completion of Clinical Orientation. Clinical application of didactic material from the nurse anesthesia curriculum through beginning level practice in the role of a nurse anesthetist. Conferences during the clinical residency provide opportunities to review current research and practice issues. *Pass/Unsatisfactory* grading only. (Fall; As Assigned)

NUAN 6486. Clinical Residency in Nurse Anesthesia II. (5) Prerequisite: NUAN 6485. Continuation of the clinical application of didactic material from the nurse anesthesia curriculum with focus on utilization of additional anesthesia techniques and increased skills

development. Conferences during the clinical residency provide opportunities to review current research and practice issues. *Pass/Unsatisfactory* grading only. *(Spring; As Assigned)*

NUAN 6487. Clinical Residency in Nurse Anesthesia III. (5) Prerequisite: NUAN 6486. Incorporation of the content of the nurse anesthesia curriculum with opportunities to begin synthesis of all didactic material and techniques for efficient clinical practice. Conferences during the clinical residency provide opportunities to review current research and practice issues. *Pass/Unsatisfactory* grading only. *(Summer; As Assigned)*

NUAN 6489. Clinical Residency in Nurse Anesthesia IV. (5) Prerequisite: NUAN 6487. ~~Non-credit clinical~~ Final residency for synthesis of all didactic material and techniques of nurse anesthesia clinical practice, promotion of professional practice, and preparation of the student for national certification ~~the licensure~~ examination. Conferences during the clinical residency provide opportunities to review current research and practice issues. *Pass/Unsatisfactory* grading only. *(Fall; As Assigned)*

JUSTIFICATION

1. **Identify the need addressed by the proposal and explain how the proposed action meets the need.** The science and practice of nurse anesthesia continues to advance. Specifically, there are increased expectations for knowledge of how ethnicity, age, and genetics influence the delivery of nurse anesthesia. In response to these changes, the nurse anesthesia curriculum was comprehensively reviewed. Proposed changes are the result of this review.
2. **Discuss prerequisites/corequisites for course(s) including class-standing.** Changes reflect expected progression through the program.
3. **Demonstrate that course numbering is consistent with the level of academic advancement of students for whom it is intended.** Course numbering is consistent with Graduate Catalog stipulations.
4. **In general, how will this proposal improve the scope, quality and/or efficiency of programs and/or instruction?** This proposal will make explicit a focus on how ethnicity, age, and genetics influence the delivery of nurse anesthesia and reflect recent scientific advances in the field.

IMPACT.

1. **What group(s) of students will be served by this proposal? (Undergraduate and/or graduate; majors and/or non-majors, others? Explain). Describe how you determine which students will be served.**
 - a. Students enrolled in the Nurse Anesthesia major in the SON will be served by this proposal. No other students are allowed to take courses designated by the prefix NUAN for the major only.
 - b. Determination of which students will be served is by admission to the major.

2. **What effect will this proposal have on existing courses and curricula?**
 - a. **When and how often will added course(s) be taught?** No Change

 - b. **How will the content and/or frequency of offering of other courses be affected?** Content will be modified to reflect scientific and professional advances and explicitly address influences of ethnicity, age, and genetics.

 - c. **What is the anticipated enrollment in course(s) added (for credit and auditors)?** No Change

 - d. **How will enrollment in other courses be affected? How did you determine this?** This proposal does not affect enrollment in any other courses.

 - e. **If course(s) has been offered previously under special topics numbers, give details of experience including number of times taught and enrollment figures.** All courses are existing courses in the Nurse Anesthesia major.

 - f. **Identify other areas of catalog copy that would be affected, e.g., curriculum outlines, requirements for the degree, etc.** Only specific course descriptions and course objectives are affected.

RESOURCES REQUIRED TO SUPPORT PROPOSAL.

When added resources are not required, indicate "none". For items which require "none" explain how this determination was made. The Nurse Anesthesia major is offered through a long-standing joint agreement between the College of Health and Human Services and CMC-Main. Courses with the prefix **NUAN** are taught on the CMC-Main hospital campus by adjunct faculty hired by CMC-Main.

1. Personnel

- a. **Specify requirements for new faculty, part-time teaching, student assistant and/or increased load on present faculty.** None: No new courses added. Revisions to objectives are minor and reflect actual content of courses.
- b. **List by name qualified faculty members interested in teaching the course(s).** NA

– only qualified adjunct faculty teach courses affected by this proposal.

2. **Physical Facility:** None – all classes and clinical courses are conducted at CMC.
3. **Equipment and Supplies – None:** Human simulation models previously purchased through a collaborative arrangement with CMC and they are used at CMC.
4. **Computer: Specify requirements for computer usage by students and/or faculty, and include an assessment of the adequacy of computing resources by Computing Services.** None: No change to computer requirements for affected courses.
5. **Audio-Visual: Specify requirements for audio and/or visual equipment and media production services from Media Services.** None: Courses are offered at CMC.
6. **Other Resources: Specify and estimate cost of other new/added resources required, e.g., travel, communication, printing and binding.** None: Courses are offered at CMC.
7. **Indicate source(s) of funding for new/additional resources required to support this proposal:** None: Courses are offered at CMC.

CONSULTATION WITH THE LIBRARY AND OTHER DEPARTMENTS OR UNITS

1. **Library Consultation:** Indicate written consultation with the Library Reference Staff at the departmental level to insure that library holdings are adequate to support the proposal prior to its leaving the department. (*Attach copy of Consultation on Library Holdings*). Requires no change in library resources. Students primarily use AHEC library at CMC as resource for medical references and medical journals.
2. **Consultation with other departments or units**
 - a. **List departments/units consulted in writing and dates consulted.** None needed
 - b. **Summarize results of consultation and attach correspondence.** None needed

INITIATION AND CONSIDERATION OF THE PROPOSAL

1. **Originating Unit:** Briefly summarize action on the proposal in the originating unit including information on voting and dissenting options. Adjunct faculty teaching the courses met with Associate Director during summer 2011 to review courses. Gaps in addressing diversity, age, and genetics were noted and many changes proposed. Curriculum reviewed again and additional revisions recommended in October, 2011. Updates to courses were made. Long form presented to SON Graduate Admissions and Curriculum Committee for review on 11/3/2011. Additional revisions made and after extensive Committee review, voted to approve changes by email on November 8, 2011. Proposal distributed by email to SON Graduate Faculty for review on Oct 10, 2011. Faculty voted to approve on November 17, 2011.

- 2. Other Considering Units: Briefly summarize action on the proposal by each considering unit including information on voting and dissenting options. No other units consulted as this only affects the nurse anesthesia major courses.**

ATTACHMENTS

Attach relevant documentation of consultations with other units. For Graduate Courses attach a course syllabus. Please see *Boiler Plate for Syllabi for New/Revised Graduate Courses.*

Attachment # 1: Table of course titles with summary of changes in titles, course descriptions, and objectives.

Attachment # 2: Revised syllabi attached for each course listed in Attachment # 1.

ATTACHMENTS

Attach relevant documentation of consultations with other units. For Graduate Courses attach a course syllabus. Please see *Boiler Plate for Syllabi for New/Revised Graduate Courses.*

Attachment # 1: Table of course titles with summary of changes in titles, course descriptions, and objectives

Course Number and Title	Changes in Course Descriptions and Objectives
<p>NUAN 6151 Principles of Nurse Anesthesia I</p>	<p><u>Changes to Course Description:</u> NUAN 6151. Principles of Nurse Anesthesia I. (3) Co-requisite: Prerequisite: NUAN 6156. Overview of the principles, techniques and equipment necessary for the administration of anesthesia for the general surgical client. (Fall)</p> <p><u>Changes to Objectives:</u> <u>Objective D:</u> Evaluate general surgical clients pre-operatively and compose a culturally appropriate individualized anesthesia plan (IAP) to include appropriate anesthetics and adjunct pharmacological agents.</p>
<p>NUAN 6152. Principles of Anesthesia II.</p>	<p><u>Changes to Course Description:</u> NUAN 6152. Principles of Nurse Anesthesia II. (3) Prerequisite: NUAN 6151. This course provides nurse anesthesia students with specific Specific techniques of nurse anesthesia practice for selected clients. (Spring)</p> <p><u>Changes to Objectives:</u> <u>Objective A:</u> Provide theory and rationale for the anesthetic management of the culturally diverse obstetric and pediatric patients within the Scope and Standards of Nurse Anesthesia Practice (2005).</p> <p><u>Objective D:</u> Organize the care for a general pediatric patient to include: culturally appropriate physical and psychosocial assessment, selection, administration and management of the anesthesia, and post-operative care.</p>

<p>NUAN 6153. Principles of Anesthesia III</p>	<p><u>Changes to Course Description:</u> NUAN 6153. Principles of Nurse Anesthesia III. (3) Prerequisite: NUAN 6152. Advanced nurse anesthesia practice for selected patients. clients (Summer)</p> <p><u>Changes to Objectives:</u> <u>Objective B</u> Design an a culturally appropriate anesthetic plan for the critically ill pediatric patient, including congenital and genetic syndrome, cardiac and neurologic deficits, trauma, and burn. considering pediatric physiology, common pathophysiologies of the pediatric patient, their special needs, and pharmacological interventions.</p> <p><u>Objective G</u> Develop an a culturally appropriate anesthetic plan for the patient undergoing surgery under regional anesthesia.</p>
<p>NUAN 6155. Pharmacology of Anesthetic Agents.</p>	<p><u>Changes to Course Description:</u> NUAN 6155. Pharmacology in Anesthetic Agents. (4) Prerequisite: NUAN 6154. Co-requisite: Prerequisite: NUAN 6156 Continuation of Pharmacology I with emphasis on the clinical use of anesthetic agents and adjunctive drugs. (Fall) An exploration of the pharmacological concepts and clinical application of anesthetic drugs. (Fall)</p> <p><u>No changes to Objectives</u></p>
<p>NUAN 6154. Pharmacology of Non Anesthetic Agents.</p>	<p><u>Changes to Course Description:</u> NUAN 6154. Pharmacology of for Non Anesthetic Agents. (4) Prerequisite: NUAN 6156 or Permission of the department. Introduction to the pharmacology of anesthetic drugs and adjunctive agents, including general pharmacological principles, pharmacokinetics and pharmacodynamics. An exploration of pharmacological concepts and clinical application of non-anesthetic drugs and adjunct agents commonly used in the anesthetic arena. (Spring)</p> <p><u>Changes to Objectives:</u> <u>Insert Objective C and change numbering of remaining objectives.</u> Synthesize emerging knowledge of genetic differences with</p>

	current understanding of patient response to non-anesthetic agents.
NUAN 6156. Applied Physics and Chemistry in Nurse Anesthesia	<p><u>Changes to Course Description:</u> NUAN 6156. Applied Physics and Chemistry in Nurse Anesthesia. (3) Prerequisite: Admission to the major. Permission of the department. Basic laws and principles of physics, inorganic, organic, and biochemistry chemistry and organic chemistry as they apply to the clinical practice of nurse anesthesia. (Fall)</p> <p><u>No Changes to Objectives</u></p>
NUAN 6157. Applied Pathophysiology in Nurse Anesthesia I.	<p><u>Changes to Course Description:</u> NUAN 6157. Applied Pathophysiology in Nurse Anesthesia I. (3) Prerequisite: BIOL 6273. A study of basic concepts of the pathophysiologies of the nervous, respiratory, cardiac, renal, and endocrine systems with emphasis on their anesthetic implications. Pathophysiology of the nervous and cardiovascular systems with emphasis on their anesthetic implications. (Spring)</p> <p><u>Changes to Objectives:</u> <u>Add Objective H:</u> Delineate how genetic, ethnic, and cultural variations affect pathophysiology.</p>
NUAN 6158. Applied Pathophysiology in Nurse Anesthesia II.	<p><u>Changes to Course Description:</u> NUAN 6158. Applied Pathophysiology in Nurse Anesthesia II. (3) Prerequisite: NUAN 6157. A study of advanced concepts of the pathophysiologies of the nervous, respiratory, cardiac, and hepatobiliary systems, emphasizing anesthetic implications and management. Pathophysiology of the respiratory, endocrine, excretory and renal systems with emphasis on their anesthetic implications (Fall)</p> <p><u>Changes to Objectives:</u> <u>Add Objective F:</u> Delineate how genetic, ethnic, and cultural variations affect pathophysiology.</p>
NUAN 6171. Professional Aspects of Nurse Anesthesia II.	<p><u>Changes to Course Description:</u> NUAN 6171. Professional Aspects of Nurse Anesthesia I. (1)</p>

	<p>Corequisites: NUAN 6153 and 6485. Overview of the legal, ethical, and professional aspects regarding the practice of nurse anesthesia and information about the American Association of Nurse Anesthetists, including its history and Councils on Accreditation, Licensure, and Practice. Overview of the professional aspects of nurse anesthesia practice including history of the profession and professional associations, legal aspects, risk management, and the professional role. <i>(Fall)</i></p> <p><u>Changes to Objectives:</u> <u>Add Objective H:</u> Define a topic for a systematic review of the literature for the Capstone Project.</p>
<p>NUAN 6172. Professional Aspects of Nurse Anesthesia II.</p>	<p><u>Changes to Course Description:</u> NUAN 6172. Professional Aspects of Nurse Anesthesia II. (1) Prerequisite: NUAN 6171. Corequisite: NUAN 6486. Overview of the professional, aspects of nurse anesthesia practice including economic considerations, political challenges, evolving role in the health care system, administrative responsibilities, practice regulations, and ethical principles. legal, ethical, and professional aspects regarding the practice of nurse anesthesia and information about the American Association of Nurse Anesthetists, including its history and Councils on Accreditation, Certification Licensure, and Practice. <i>(Spring)</i></p> <p><u>Changes to Objectives:</u> <u>Add Objective B:</u> Analyze the evolution and practice implications of the AANA ruling on DNP as Entry into Practice.</p> <p><u>Change objective D:</u> Examine the process of ethical decision making in professional practice within the context of various cultural and social values.</p> <p><u>Change objective E:</u> Understand the process of Health Care Delivery in the United States as it applies to Nurse Anesthetists.</p>
<p>NUAN 6485. Clinical Residency</p>	<p><u>Changes to Course Description:</u></p>

<p>in Nurse Anesthesia I</p>	<p>NUAN 6485. Clinical Residency in Nurse Anesthesia I. (5) Prerequisite: NUAN 6153 and satisfactory completion of Clinical Orientation. Clinical application of didactic material from the nurse anesthesia curriculum through beginning level practice in the role of a nurse anesthetist. Conferences during the clinical residency provide opportunities to review current research and practice issues. <i>Pass/Unsatisfactory</i> grading only. (Fall)</p> <p><u>Changes to Objectives:</u> <u>Change objective G:</u> Utilize effective culturally sensitive communication with respect and caring for all patients and members of the health care team.</p> <p><u>Add Objectives H, I, J, K:</u> H. Incorporate current and emerging genetic/genomic evidence in providing advanced nursing care to individuals and families while accounting for patient values and clinical judgment.</p> <p>I. Collaborate with student colleagues to perform a systematic review of the literature on a selected topic.</p> <p>J. Successfully complete Oral Comprehensive Exam II.</p> <p>K. Demonstrate mastery of basic anesthesia Principles on an Oral Comprehensive Exam.</p>
<p>NUAN 6486. Clinical Residency in Nurse Anesthesia II.</p>	<p><u>Changes to Course Description:</u> NUAN 6486. Clinical Residency in Nurse Anesthesia II. (5) Prerequisite: NUAN 6485. Continuation of the clinical application of didactic material from the nurse anesthesia curriculum with focus on utilization of additional anesthesia techniques and increased skills development. Conferences during the clinical residency provide opportunities to review current research and practice issues. <i>Pass/Unsatisfactory</i> grading only. (Spring)</p> <p><u>Changes to Objectives:</u> <u>Change Objective B:</u> Demonstrate continued competency for all previous clinical objectives in Clinical Residency I.</p>

	<p><u>Add Objectives F, G, H, I, and J:</u></p> <p>F. Utilize effective culturally sensitive communication with respect and caring for all patients and members of the health care team.</p> <p>G. Incorporate current and emerging genetic/genomic evidence in providing advanced nursing care to individuals and families while accounting for patient values and clinical judgment.</p> <p>H. Collaborate with student colleagues to perform a systematic review of the literature on a selected topic.</p> <p>I. Successfully complete Self Evaluation Examination I.</p> <p>J. Demonstrate mastery of basic anesthesia Principles on Self Evaluation Examination I.</p>
<p>NUAN 6487. Clinical Residency in Nurse Anesthesia III</p>	<p><u>Changes to Course Description:</u></p> <p>NUAN 6487. Clinical Residency in Nurse Anesthesia III. (5) Prerequisite: NUAN 6486. Incorporation of the content of the nurse anesthesia curriculum with opportunities to begin synthesis of all didactic material and techniques for efficient clinical practice. Conferences during the clinical residency provide opportunities to review current research and practice issues. <i>Pass/Unsatisfactory</i> grading only. <i>(Summer)</i></p> <p><u>Changes to Objectives:</u></p> <p><u>Change Objective B:</u> Demonstrate continued competency for all previous clinical objectives in Clinical Residency I and II.</p> <p><u>Add Objectives F, G, H, and I:</u></p> <p>F. Incorporate current and emerging genetic/genomic evidence in providing advanced nursing care to individuals and families while accounting for patient values and clinical judgment.</p> <p>G. Collaborate with student colleagues to perform a systematic review of the literature on a selective topic.</p> <p>H. Successfully complete Oral Comprehensive Exam III.</p> <p>I. Demonstrate mastery of advanced anesthesia Principles on Oral Comprehensive Exam III.</p>

<p>NUAN 6489. Clinical Residency in Nurse Anesthesia IV</p>	<p><u>Changes to Course Description:</u> NUAN 6489. Clinical Residency in Nurse Anesthesia IV. (5) Prerequisite: NUAN 6487. Non-credit clinical Final residency for synthesis of all didactic material and techniques of nurse anesthesia clinical practice, promotion of professional practice, and preparation of the student for national certification the licensure examination. Conferences during the clinical residency provide opportunities to review current research and practice issues. <i>Pass/Unsatisfactory</i> grading only. (Fall)</p> <p><u>Add Objectives F, G, H, and I:</u> F. Incorporate current and emerging genetic/genomic evidence in providing advanced nursing care to individuals and families while accounting for patient values and clinical judgment. G. Disseminate systematic review of the literature to professional organizations. H. Successfully complete Self Evaluation Exam II. I. Demonstrate mastery of advanced anesthesia principles on Self Evaluation Exam II.</p>
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<p>NUAN 6152. Principles of Anesthesia II.</p>	<p><u>Changes to Course Description:</u> NUAN 6152. Principles of Nurse Anesthesia II. (3) Prerequisite: NUAN 6151. This course provides nurse anesthesia students with specific Specific techniques of nurse anesthesia practice for selected clients. (Spring)</p> <p><u>Changes to Objectives:</u> <u>Objective A:</u> Provide theory and rationale for the anesthetic management of the culturally diverse obstetric and pediatric patients within the Scope and Standards of Nurse Anesthesia Practice (2005).</p> <p><u>Objective D:</u> Organize the care for a general pediatric patient to include: culturally appropriate physical and psychosocial assessment, selection, administration and management of the anesthesia, and post-operative care.</p>

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NUAN 6157. Applied Pathophysiology in Nurse Anesthesia I.	<p><u>Changes to Course Description:</u> NUAN 6157. Applied Pathophysiology in Nurse Anesthesia I. (3) Prerequisite: BIOL 6273. A study of basic concepts of the pathophysiologies of the nervous, respiratory, cardiac, renal, and endocrine systems with emphasis on their anesthetic implications. Pathophysiology of the nervous and cardiovascular systems with emphasis on their anesthetic implications. <i>(Spring)</i></p> <p><u>Changes to Objectives:</u> <u>Add Objective H:</u> Delineate how genetic, ethnic, and cultural variations affect pathophysiology.</p>
NUAN 6158. Applied Pathophysiology in Nurse Anesthesia II.	<p><u>Changes to Course Description:</u> NUAN 6158. Applied Pathophysiology in Nurse Anesthesia II. (3) Prerequisite: NUAN 6157. A study of advanced concepts of the pathophysiologies of the nervous, respiratory, cardiac, and hepatobiliary systems, emphasizing anesthetic implications and management. Pathophysiology of the respiratory, endocrine, excretory and renal systems with emphasis on their anesthetic implications <i>(Fall)</i></p> <p><u>Changes to Objectives:</u> <u>Add Objective F:</u> Delineate how genetic, ethnic, and cultural variations affect pathophysiology.</p>
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	<p>Corequisites: NUAN 6153 and 6485. Overview of the legal, ethical, and professional aspects regarding the practice of nurse anesthesia and information about the American Association of Nurse Anesthetists, including its history and Councils on Accreditation, Licensure, and Practice. Overview of the professional aspects of nurse anesthesia practice including history of the profession and professional associations, legal aspects, risk management, and the professional role. <i>(Fall)</i></p> <p><u>Changes to Objectives:</u> <u>Add Objective H:</u> Define a topic for a systematic review of the literature for the Capstone Project.</p>
<p>NUAN 6172. Professional Aspects of Nurse Anesthesia II.</p>	<p><u>Changes to Course Description:</u> NUAN 6172. Professional Aspects of Nurse Anesthesia II. (1) Prerequisite: NUAN 6171. Corequisite: NUAN 6486. Overview of the professional, aspects of nurse anesthesia practice including economic considerations, political challenges, evolving role in the health care system, administrative responsibilities, practice regulations, and ethical principles. legal, ethical, and professional aspects regarding the practice of nurse anesthesia and information about the American Association of Nurse Anesthetists, including its history and Councils on Accreditation, Certification Licensure, and Practice. <i>(Spring)</i></p> <p><u>Changes to Objectives:</u> <u>Add Objective B:</u> Analyze the evolution and practice implications of the AANA ruling on DNP as Entry into Practice.</p> <p><u>Change objective D:</u> Examine the process of ethical decision making in professional practice within the context of various cultural and social values.</p> <p><u>Change objective E:</u> Understand the process of Health Care Delivery in the United States as it applies to Nurse Anesthetists.</p>
<p>NUAN 6485. Clinical Residency</p>	<p><u>Changes to Course Description:</u></p>

	<p><u>Add Objectives F, G, H, I, and J:</u></p> <p>F. Utilize effective culturally sensitive communication with respect and caring for all patients and members of the health care team.</p> <p>G. Incorporate current and emerging genetic/genomic evidence in providing advanced nursing care to individuals and families while accounting for patient values and clinical judgment.</p> <p>H. Collaborate with student colleagues to perform a systematic review of the literature on a selected topic.</p> <p>I. Successfully complete Self Evaluation Examination I.</p> <p>J. Demonstrate mastery of basic anesthesia Principles on Self Evaluation Examination I.</p>
<p>NUAN 6487. Clinical Residency in Nurse Anesthesia III</p>	<p><u>Changes to Course Description:</u></p> <p>NUAN 6487. Clinical Residency in Nurse Anesthesia III. (5) Prerequisite: NUAN 6486. Incorporation of the content of the nurse anesthesia curriculum with opportunities to begin synthesis of all didactic material and techniques for efficient clinical practice. Conferences during the clinical residency provide opportunities to review current research and practice issues. <i>Pass/Unsatisfactory</i> grading only. <i>(Summer)</i></p> <p><u>Changes to Objectives:</u></p> <p><u>Change Objective B:</u> Demonstrate continued competency for all previous clinical objectives in Clinical Residency I and II.</p> <p><u>Add Objectives F, G, H, and I:</u></p> <p>F. Incorporate current and emerging genetic/genomic evidence in providing advanced nursing care to individuals and families while accounting for patient values and clinical judgment.</p> <p>G. Collaborate with student colleagues to perform a systematic review of the literature on a selective topic.</p> <p>H. Successfully complete Oral Comprehensive Exam III.</p> <p>I. Demonstrate mastery of advanced anesthesia Principles on Oral Comprehensive Exam III.</p>

<p>NUAN 6489. Clinical Residency in Nurse Anesthesia IV</p>	<p><u>Changes to Course Description:</u> NUAN 6489. Clinical Residency in Nurse Anesthesia IV. (5) Prerequisite: NUAN 6487. Non-credit clinical Final residency for synthesis of all didactic material and techniques of nurse anesthesia clinical practice, promotion of professional practice, and preparation of the student for national certification the licensure examination. Conferences during the clinical residency provide opportunities to review current research and practice issues. <i>Pass/Unsatisfactory</i> grading only. <i>(Fall)</i></p> <p><u>Add Objectives F, G, H, and I:</u> F. Incorporate current and emerging genetic/genomic evidence in providing advanced nursing care to individuals and families while accounting for patient values and clinical judgment. G. Disseminate systematic review of the literature to professional organizations. H. Successfully complete Self Evaluation Exam II. I. Demonstrate mastery of advanced anesthesia principles on Self Evaluation Exam II.</p>
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**University of North Carolina at Charlotte
College of Health and Human Services**

**Carolinas Medical Center
Nurse Anesthesia Program**

Course Number: NUAN 6151

Course Title: Principles of Nurse Anesthesia I

Course Credit and Clock Hours: 3 Graduate Credit Hours, 45 Clock Hours

Faculty: Nurse Anesthesia Program faculty, clinical area faculty (CRNAs) and other assigned guest lecturers.

Pre-requisites and/or Co requisites: Co-requisite: NUAN 6156, Applied Physics and Chemistry in Nurse Anesthesia.

Catalog Description: Overview of the principles, techniques, and equipment necessary for the administration of anesthesia for the general surgical patient. (*Fall*)

Course Objectives: At the end of this course the student will:

- A. Utilize the anesthetic concepts presented in this course within the limits of the scope and standards of nurse anesthesia professional practice as delineated in the Scope and Standards for Nurse Anesthesia Practice (2005).
- B. Set up an operating room to deliver an anesthetic to include: gas machine check, basic anesthesia cart assembly, and collection of adjunct anesthesia equipment.
- C. Utilize all routine monitors employed in anesthesia practice.
- D. Evaluate general surgical clients pre-operatively and compose a culturally appropriate individualized anesthesia plan (IAP) to include appropriate anesthetics and adjunct pharmacological agents.
- E. Demonstrate beginning skills of airway management to include: (1) airway assessment, (2) appraisal of a potential difficult airway, and (3) oral, nasal, and fiberoptic intubation techniques.
- F. Utilize the principles and legal aspects involved in the correct completion of the anesthetic record.
- G. Examine techniques employed by the nurse anesthetist to ensure that the client is positioned in the correct physiologic position during surgery and anesthesia.
- H. Manage intravenous access for the general surgical client.
- I. Understand the rationale for complete documentation of the anesthetic care received by a patient.

- J. Transfer the responsibility for care of the patient to other qualified providers in a manner which assures continuity of care.
- K. Understand and practice the principles of blood borne precautions so as to minimize the risk of infection to the patient, the CRNA, and other health care providers.
- L. Explain the risks and benefits of all types of anesthesia while obtaining consent.
- M. Conduct post-operative visits on all admitted patients and all outpatients as is possible to assess patient outcome to thus be in compliance with anesthesia quality assurance policy requirements.
- N. Design an anesthetic plan for the geriatric patient considering the physiology of aging, common pathophysiologies of the aged, their special needs, and pharmacological interventions.

Course Policies:

Grade Scale:

- A = 92-100
- B = 83-91
- C = 74-82
- U = 73 or below

Grades for each section may be dependent upon more parameters than just one exam. (ie-quizzes)

Attendance at class is mandatory - If class is missed, the student is responsible for the material presented during the time of absence.

Syllabus Subject to Change: The Instructor reserves the right to alter this syllabus based on best practices that fit changing circumstances.

Teaching Strategies:

- A. Lecture-Discussion
- B. Simulation
- C. Written Assignments
- D. Assigned Reading

Required Texts: See last page for list of required textbooks.

Evaluation Methods:

Exam I	16.66%
Exam II	16.66%
Exam III	16.66%
Exam IV	16.66%
Exam V	16.66%
Exam VI	<u>16.67%</u>

100%

Topical/Unit Outline:

8/23/2010	1200-1330	Intro	L. Golden
8/25/2010	1200-1330	Anesthesia Machine	L. Golden
8/30/2010	1200-1330	Pre-op Assesment	L. Golden
9/1/2010	1200-1330	Monitoring Hand Ventilation	L. Golden
9/7/2010	1200-1330	Techniques	K. Lucisano
9/9/2010	1200-1330	Exam I	Y. Mobley
9/13/2010	1400-1530	Airway Anatomy	G. Stavrakas
9/15/2010	1400-1530	Airway Assessment	G. Stavrakas
9/20/2010	1400-1530	Induction	C. Petree L. Golden/ A. Davis
9/22/2010	1200-1330	Safety/Sterility	Davis
9/27/2010	1400-1530	Positioning	J. Moorefield
9/29/2010	1200-1330	Thermoregulation	L. Golden
10/4/2010	1200-1330	Exam II	R. Ellsaesser
10/6/2010	1200-1330	Maintenance	L. Golden
10/13/2010	1400-1530	Inhalation Agents	T. Hamelin
10/18/2010	1400-1530	Muscle Relaxants	W. Collins
10/20/2010	1200-1330	Fluids & Electrolytes	D. Earnhardt
10/25/2010	1400-1530	Documentation Emergence & PACU	A. Smith
10/27/2010	1400-1530	PACU	S. Bernardo
11/1/2010	1200-1330	Exam III	L. Golden
11/3/2010	1400-1530	Intro to Regional	T. Hamelin
11/8/2010	1200-1330	MAC/TIVA	R. Ellsaesser
11/10/2010	1400-1530	General Surgery	C. Saraceno
11/15/2010	1200-1330	EKG I	K. Lucisano
11/17/2010	1200-1330	EKG II	K. Lucisano
11/22/2010	1200-1330	Orthopaedics	D. Earnhardt
11/29/2010	1400-1530	Out Patient	P. Farris
12/1/2010	1400-1530	Geriatrics	S. Bernardo

12/6/2010	1200-1330	Careplans	L. Golden
12/15/2010	1200-1330	Final Exam IV	L. Golden

University Policies:

Code of Student Responsibility:

“The *UNC Charlotte Code of Student Responsibility* (the Code) sets forth certain rights and responsibilities in matters of student discipline. The Code defines these responsibilities and guarantees you certain rights that ensure your protection from unjust imposition of disciplinary penalties. You should familiarize yourself with the provisions and procedures of the Code” (Introductory statement from the UNC Charlotte brochure about the Code of Student Responsibility). The entire document may be found at this Internet address: <http://legal.uncc.edu/policies/ps-104.html>

Academic Integrity:

Students have the responsibility to know and observe the requirements of The UNC Charlotte Code of Student Academic Integrity. This code forbids cheating, fabrications, or falsification of information, multiple submission of academic work, plagiarism, abuse of academic materials, and complicity in academic dishonesty. Academic evaluations in this course include a judgment that the student’s work is free from academic dishonesty of any type; and grades in this course therefore should be and will adversely affected by academic dishonesty. Students who violate the code can be expelled from UNC Charlotte. The normal penalty for a first offense is zero credit on the work involving dishonesty and further substantial reduction in the course grade. In almost all cases the course grade is reduced to F. Copies of the code can be obtained from the Dean of Students Office or <http://legal.uncc.edu/policies/ps-105.html>. Students are expected to report cases of academic dishonesty to the course’s instructor.

Plagiarism is when you use or borrow another person’s words or ideas without giving them credit – in other words, stealing that person’s work. Regardless of where you saw or heard these words or ideas – lecture, book, Internet, website, BLOG, chat room, letter, diary, newspaper, journal article, on TV or radio – you must reference that material and the person who spoke or wrote these ideas. As an author, you must cite a person’s work whenever you use their idea, opinion, or theory, quote their exact words, or use facts, statistics or diagrams, unless that information is common knowledge, meaning something that most people could reasonably be expected to know (e.g. the name of the President of the United States is something that most people would know and you would not have to cite where you found this information)

It is your job to ask your teacher if you have any questions about how to cite a source.

Plagiarism is against the ethical code of the faculty, the researchers in this college, and UNC Charlotte. Plagiarism shows a serious lack of honesty and truthfulness and it will be dealt with harshly. The university has a process led by the Dean of Students that

investigates a report and can result in penalties from failing an assignment to being expelled from the university, depending on how extreme the event .

Special Needs: If you have a documented disability and require accommodation in this course, contact Disability Services, Fretwell 230, phone: 687 4355 voice/TDD) the first week of the semester. Information about available services may be found at <http://legal.uncc.edu/policies/ps-51.html>. Accommodations for learning will be arranged by that office and communicated to the Instructor. If you speak English as a second language, please inform the instructor.

Diversity Statement:

UNC Charlotte strives to create an academic climate in which the dignity of all individuals is respected and maintained. Therefore, we celebrate diversity that includes, but is not limited to ability/disability, age, culture, ethnicity, gender, language, race, religion, sexual orientation, and socio-economic status.

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Religious Accommodation:

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Department Policies:

Refer to Nurse Anesthesia Student Handbook for additional applicable policies.

Required Texts:

Barash, P.G., Cullen, B.F., Stoelting, R.K., Cahalan, M.K., & Stock, M.C. (eds.). (2009). Clinical Anesthesia (6th ed.). Philadelphia: Lippincott, Williams, & Wilkins.

Chestnut, D. H., Polley, L.S., Twen, L.C., & Wong, C.A. (eds.). (2009). Chestnut's Obstetric Anesthesia: Principles and Practice. (4th ed.). St. Louis: Mosby.

Cote, C. J., Lerman, J., & Todres, I. D. (2009). A Practice of Anesthesia for Infants and Children. (4th ed.). Philadelphia: Saunders Elsevier.

Cottrell, J. E., & Young, W. L. (Eds.). (2009). Cottrell's Neuroanesthesia (5th ed.). St. Louis: Mosby.

Foster, S. D., & Faut-Callahan, M. (Eds.). (2001). A Professional Study and Resource Guide for the CRNA. Park Ridge, IL: AANA Publishing, Inc.

Guyton, A. C., & Hall, J. E. (2005). Textbook of Medical Physiology (11th ed.). Philadelphia: W.B. Saunders Company.

Hensley, F. A., Martin, D. E., & Gravlee, G. P. (2007). A Practical Approach to Cardiac Anesthesia (4th ed.). Philadelphia: Lippincott Williams & Wilkins.

Kier, L. B., & Dowd, C. S. (2004). The Chemistry of Drugs for Nurse Anesthetists. Park Ridge, IL: AANA Publishing, Inc.

Morgan, G. E., Jr., Mikhail, M. S., & Murray, M. J. (2006). Clinical Anesthesiology (4th ed.). New York: McGraw-Hill.

Nagelhout, J. J., & Plaus, K. L. (2010). Nurse Anesthesia (4th ed.). St. Louis: Elsevier Saunders.

Hines, R.L., & Marschall, K.E. (eds.) (2008). Stoelting's Anesthesia and Co-Existing Disease (5th ed.). Philadelphia: Churchill Livingstone (Saunders Elsevier).

Jaffe, R.A., & Samuels, S.I. (eds.) (2009). Anesthesiologist's Manual of Surgical Procedures (4th ed.). Philadelphia: Lippincott, Williams & Wilkins.

Stoelting, R. K., & Hillier, S. C. (2006). Pharmacology & Physiology in Anesthetic Practice (4th ed.). Philadelphia: Lippincott Williams & Wilkins.

Harvey, R., Champe, P., Finkel, R., Cubeddu, L., & Clarke, M. (ed.) (2008). Lippincott's Illustrated Reviews: Pharmacology (4th ed.). Philadelphia: Lippincott Williams & Wilkins.

1. Lucisano, Karen. "EKG: Basic", "EKG: Axis" (Disc).
2. Handouts from individual instructors.

Note: There may be additional requirements to meet program accreditation requirements. Please refer to department guidelines for additional requirements

**University of North Carolina at Charlotte
College of Health and Human Services**

**Carolinas Medical Center
Nurse Anesthesia Program**

Course Number: NUAN 6152 Principles of Nurse Anesthesia II

Course Title: Principles of Nurse Anesthesia II

Course Credit and Clock Hours: 3 Graduate Credit Hours, 45 Clock Hours

Pre-requisites and/or Co requisites: NUAN 6151 - Principles of Nurse Anesthesia I,

Faculty: Karen Lucisano, CRNA, MSN, Leslie Golden, CRNA, MSN, Brittany Clyne, MD, Guest anesthesiologist lecturers

Catalog Description: This course provides anesthesia students with specific techniques of nurse anesthesia practice for selected patients. *(Spring)*

Course Objectives: At the end of the course the student shall be able to:

- A. Provide theory and rationale for the anesthetic management of culturally diverse obstetric and pediatric patients within the Scope and Standards of Nurse Anesthesia Practice (2005).
- B. Evaluate the obstetrical patient for anesthesia to include: pre-operative assessment considering normal obstetrical physiology and the more common pathophysiology, pain management, cesarean section care, proper positioning, and epidural anesthesia.
- C. Examine the principles of neonatal and pediatric anesthesia during pre-operative assessment, operating room and equipment set-up, appraisal of normal physiology and pathophysiology, and post anesthesia pain management.
- D. Organize the care for a general pediatric patient to include: culturally appropriate physical and psychosocial assessment, selection, administration and management of the anesthesia, and post-operative care.

Course Policies:

Attendance: Attendance at class is mandatory - If class is missed, the student is responsible for the material presented during the time of absence.

Syllabus Subject to Change: The Instructor reserves the right to alter this syllabus based on best practices that fit changing circumstances.

Grades: Final grade will be determined according to the following scale:

Letter	Numerical
A	92-100
B	91-83
C	82-74
U	below 73

Teaching Strategies:

- A. Lecture-Discussion
- B. Written Assignments
- C. Assigned Readings
- D. Simulation
- E. Principles Clinical Experience

Evaluation Methods:

A. Examinations		
Overall OB Score		
OB Exam I		33.3%
OB Exam II		33.3%
OB Exam III		<u>33.4%</u>
<i>Total Overall OB Score Possible</i>		100 %
Overall Pediatric Score		
Peds Exam I		50 %
Peds Exam II		<u>50 %</u>
<i>Total Overall Pediatric Score Possible</i>		100 %
Overall Course Grade		
Overall OB Score		50%
Overall Pediatric Score		<u>50%</u>
<i>Overall Course Grade</i>		100%

Required Texts: See last page for list of required textbooks.

Topical/Unit Outline:

Day	Date	Lecture/Topic	Presenter
Tuesday	1/18	Objectives / Fetus & newborn phys.	Dr. B. Clyne
Wednesday	1/19	Uterine Pharm. / Fetus & newborn pharm.	Dr. B. Clyne
Tuesday	1/25	Newborn Management	Dr. R. Sauder
Tuesday	2/1	Quiz 1 (Lect. 1-5) / Mgt. of Maternal Pain / LA & Opioids	NAP Faculty / Dr. B. Clyne
Tuesday	2/8	Regional Anes Techniques	Dr. J. Gage
Tuesday	2/15	Anes for C-Section	Dr. E. Winter
Tuesday	2/22	Quiz 2 (Lect. 6-9) / Anes for Comp OB Pt I	NAP Faculty / Dr. B.

Tuesday	3/1
Tuesday	3/15
Tuesday	3/22
Tuesday	3/29
Tuesday	4/5
Tuesday	4/12
Tuesday	4/19
Tuesday	4/26
Tuesday	5/3
Wednesday	5/11

	Clyne
Anes for Comp OB II / non-OB surg	Dr. B. Clyne
OB Quiz 3 (Lect 10-12) / Intro to Peds	NAP Faculty / L. Golden
Rev of growth & development /	L. Golden
Med equipment in an adult sized world	
Premature Infants	L. Golden
Neonates	L. Golden
Infants & Toddlers	L. Golden
Peds Exam I (Lectures 1-3) / Inhalation Induction/ ODS	L. Golden / R. Ellsaesser
Infants & Toddlers / Preschoolers	L. Golden
School Age / Adolescent	L. Golden
Peds Exam II (Lectures 4-7) (Final Exam)	L. Golden

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the United States is something that most people would know and you would not have to cite where you found this information)

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Department Policies:

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Required Texts:

Chestnut, D. H. (2009). Obstetric Anesthesia: Principles and Practice. (4th ed.). St. Louis: Mosby.

Cote, C. J., Lerman, J., & Todres, I. D. (2009). A Practice of Anesthesia for Infants and Children. (4th ed.). Philadelphia: Saunders Elsevier.

Additional Texts:

Atlee, J. L. (2007). Complications in Anesthesia. (2nd ed.). Philadelphia: Saunders Elsevier.

Cottrell, J. E., & Young, W. L. (Eds.). (2009). Cottrell's Neuroanesthesia (5th ed.). St. Louis: Mosby.

Faust, R. J. (Ed.). (2002). Anesthesiology Review. (3rd ed.). Philadelphia: Churchill Livingstone Elsevier.

Foster, S. D., & Faut-Callahan, M. (Eds.). (2001). A Professional Study and Resource Guide for the CRNA. Park Ridge, IL: AANA Publishing, Inc.

Guyton, A. C., & Hall, J. E. (2005). Textbook of Medical Physiology (11th ed.). Philadelphia: W.B. Saunders Company.

Hensley, F. A., Martin, D. E., & Gravlee, G. P. (2007). A Practical Approach to Cardiac Anesthesia (4th ed.). Philadelphia: Lippincott Williams & Wilkins.

Kier, L. B., & Dowd, C. S. (2004). The Chemistry of Drugs for Nurse Anesthetists. Park Ridge, IL: AANA Publishing, Inc.

Miller, R. D. (Ed.). (2010). Miller's Anesthesia. (7th ed.). Philadelphia: Churchill Livingstone Elsevier.

Morgan, G. E., Jr., Mikhail, M. S., & Murray, M. J. (2006). Clinical Anesthesiology (4th ed.). New York: McGraw-Hill.

Nagelhout, J. J., & Plaus, K. L. (2010). Nurse Anesthesia (4th ed.). St. Louis: Elsevier Saunders.

Nagelhout, J. J., & Plaus, K. L. (2010). Handbook of Nurse Anesthesia (4th ed.). St. Louis: Elsevier Saunders.

Stoelting, R. K., & Dierdorf, S. F. (2008). Anesthesia and Co-Existing Disease (5th ed.). New York: Churchill Livingstone.

Stoelting, R. K., & Hillier, S. C. (2006). Pharmacology & Physiology in Anesthetic Practice (4th ed.). Philadelphia: Lippincott Williams & Wilkins.

**University of North Carolina at Charlotte
College of Health and Human Services**

**Carolinas Medical Center
Nurse Anesthesia Program**

Course Number: NUAN 6153

Course Title: Principles of Nurse Anesthesia III

Course Credit and Clock Hours: 3 Graduate Credit Hours, 45 Clock Hours

Pre-requisites and/or Co requisites: NUAN 6152, Principles of Nurse Anesthesia II,

Faculty: L. Golden, MSN, CRNA. C. Albanese, MSN, CRNA. Guest CRNA and MDA lecturers from Carolinas Medical Center Department of Anesthesia as listed below.

Catalog Description: Advanced nurse anesthesia practice for selected patients (*Summer*)

Course Objectives: At the end of this course the student shall be able to:

- A. Apply the Scope and Standards of Nurse Anesthesia Practice (2005) to the principles of advanced nurse anesthesia practice.
- B. Design a culturally appropriate anesthetic plan for the critically ill pediatric patient, including those with congenital and genetic syndromes, cardiac and neurologic deficits, traumas, and / or burns.
- C. Organize an anesthetic plan for the patient undergoing eye, ear, nose, and/or throat surgery.
- D. Select appropriate anesthetic techniques for patient undergoing thoracic, cardiovascular, neurological, urological, orthopedic, gynecological, and outpatient surgery.
- E. Examine the anesthesia care of the patients undergoing diagnostic procedures such as: magnetic resonance imaging, computerized tomographic scans, cardiac catheterization, gastroscopies, evoked potential, electro-encephalograms, and electroshock therapy.
- F. Examine the care of the patient undergoing surgery for burn care.
- G. Develop a culturally appropriate anesthetic plan for the patient undergoing surgery under regional anesthesia.

Course Policies:

Grades: Final grade will be determined according to the following scale:

Letter

Numerical

A	100-92
B	91-83
C	82-74
U	below 73

Department or Course Policies: Attendance at class is mandatory.

Teaching Strategies:

- A. Lecture, classroom instruction
- B. Assigned reading
- C. Class room discussion

Evaluation Methods:

Exam I	25%
Exam II	25%
Exam III	25%
Exam IV	<u>25%</u>
	100%

Required Texts: See last page for list of required textbooks.

Topical/Unit Outline:

Prin III Summer 2011

Thursday	26-May	Periph & Thoracic Vasc C. Saraceno	Thoracic J. Weese
Thursday	2-Jun	Non Cardiac Surg C. Saraceno	Transplants K. Hartwell
Thursday	9-Jun	Exam I C. Saraceno	Specials / OOD M. Barragree
Thursday	16-Jun	Trauma C. Jones	Urology J. Weese
Thursday	23-Jun	Burns M. Leonard	Neuro/Hyperreflex K. Hartwell
Thursday	30-Jun	Exam II D. Earnhardt	Ped Neuro / MH M. Brown
Thursday	7-Jul	Ad Peds L. Golden	Ad Peds L. Golden
Thursday	14-Jul	Peds Card I E. Parker	Peds Card II E. Parker

Thursday	21-Jul	Exam III R. Ellsaesser	Peripheral techniques Dr. J. Doyle
Thursday	28-Jul	Basic ENT T. Outlaw	Adv ENT W. Collins
Monday	1-Aug	Exam IV Final Exam C. Saraceno	

University Policies:

Code of Student Responsibility:

“The *UNC Charlotte Code of Student Responsibility* (the Code) sets forth certain rights and responsibilities in matters of student discipline. The Code defines these responsibilities and guarantees you certain rights that ensure your protection from unjust imposition of disciplinary penalties. You should familiarize yourself with the provisions and procedures of the Code” (Introductory statement from the UNC Charlotte brochure about the Code of Student Responsibility). The entire document may be found at this Internet address: <http://legal.uncc.edu/policies/ps-104.html>

Academic Integrity:

Students have the responsibility to know and observe the requirements of The UNC Charlotte Code of Student Academic Integrity. This code forbids cheating, fabrications, or falsification of information, multiple submission of academic work, plagiarism, abuse of academic materials, and complicity in academic dishonesty. Academic evaluations in this course include a judgment that the student’s work is free from academic dishonesty of any type; and grades in this course therefore should be and will adversely affected by academic dishonesty. Students who violate the code can be expelled from UNC Charlotte. The normal penalty for a first offense is zero credit on the work involving dishonesty and further substantial reduction in the course grade. In almost all cases the course grade is reduced to F. Copies of the code can be obtained from the Dean of Students Office or <http://legal.uncc.edu/policies/ps-105.html>. Students are expected to report cases of academic dishonesty to the course’s instructor.

Plagiarism is when you use or borrow another person’s words or ideas without giving them credit – in other words, stealing that person’s work. Regardless of where you saw or heard these words or ideas – lecture, book, Internet, website, BLOG, chat room, letter, diary, newspaper, journal article, on TV or radio – you must reference that material and the person who spoke or wrote these ideas. As an author, you must cite a person’s work whenever you use their idea, opinion, or theory, quote their exact words, or use facts, statistics or diagrams, unless that information is common knowledge, meaning something that most people could reasonably be expected to know (e.g. the name of the President of the United States is something that most people would know and you would not have to cite where you found this information)

It is your job to ask your teacher if you have any questions about how to cite a source.

Plagiarism is against the ethical code of the faculty, the researchers in this college, and UNC Charlotte. Plagiarism shows a serious lack of honesty and truthfulness and it will be dealt with harshly. The university has a process led by the Dean of Students that investigates a report and can result in penalties from failing an assignment to being expelled from the university, depending on how extreme the event .

Special Needs: If you have a documented disability and require accommodation in this course, contact Disability Services, Fretwell 230, phone: 687 4355 voice/TDD) the first week of the semester. Information about available services may be found at <http://legal.uncc.edu/policies/ps-51.html>. Accommodations for learning will be arranged by that office and communicated to the Instructor. If you speak English as a second language, please inform the instructor.

Diversity Statement:

UNC Charlotte strives to create an academic climate in which the dignity of all individuals is respected and maintained. Therefore, we celebrate diversity that includes, but is not limited to ability/disability, age, culture, ethnicity, gender, language, race, religion, sexual orientation, and socio-economic status.

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Religious Accommodation:

It is the obligation of students to provide faculty with reasonable notice of the dates of religious observances on which they will be absent by submitting a Request for Religious Accommodation Form to their instructor prior to the census date for enrollment for a given semester <http://legal.uncc.edu/policies/ps-134.html> The census date for each semester (typically the tenth day of instruction) can be found in UNC Charlotte's Academic Calendar (<http://registrar.uncc.edu/calendars/calendar.htm>) .

Department Policies:

Refer to Nurse Anesthesia Student Handbook for additional applicable policies.

Required Texts:

Barash, P.G., Cullen, B.F., Stoelting, R.K., Cahalan, M.K., & Stock, M.C. (eds.). (2009). Clinical Anesthesia (6th ed.). Philadelphia: Lippincott, Williams, & Wilkins.

Chestnut, D. H., Polley, L.S., Twen, L.C., & Wong, C.A. (eds.). (2009). Chestnut's Obstetric Anesthesia: Principles and Practice. (4th ed.). St. Louis: Mosby.

Cote, C. J., Lerman, J., & Todres, I. D. (2009). A Practice of Anesthesia for Infants and Children. (4th ed.). Philadelphia: Saunders Elsevier.

Cottrell, J. E., & Young, W. L. (Eds.). (2009). Cottrell's Neuroanesthesia (5th ed.). St. Louis: Mosby.

Foster, S. D., & Faut-Callahan, M. (Eds.). (2001). A Professional Study and Resource Guide for the CRNA. Park Ridge, IL: AANA Publishing, Inc.

Guyton, A. C., & Hall, J. E. (2005). Textbook of Medical Physiology (11th ed.). Philadelphia: W.B. Saunders Company.

Hensley, F. A., Martin, D. E., & Gravlee, G. P. (2007). A Practical Approach to Cardiac Anesthesia (4th ed.). Philadelphia: Lippincott Williams & Wilkins.

Kier, L. B., & Dowd, C. S. (2004). The Chemistry of Drugs for Nurse Anesthetists. Park Ridge, IL: AANA Publishing, Inc.

Morgan, G. E., Jr., Mikhail, M. S., & Murray, M. J. (2006). Clinical Anesthesiology (4th ed.). New York: McGraw-Hill.

Nagelhout, J. J., & Plaus, K. L. (2010). Nurse Anesthesia (4th ed.). St. Louis: Elsevier Saunders.

Hines, R.L., & Marschall, K.E. (eds.) (2008). Stoelting's Anesthesia and Co-Existing Disease (5th ed.). Philadelphia: Churchill Livingstone (Saunders Elsevier).

Jaffe, R.A., & Samuels, S.I. (eds.) (2009). Anesthesiologist's Manual of Surgical Procedures (4th ed.). Philadelphia: Lippincott, Williams & Wilkins.

Stoelting, R. K., & Hillier, S. C. (2006). Pharmacology & Physiology in Anesthetic Practice (4th ed.). Philadelphia: Lippincott Williams & Wilkins.

Harvey, R., Champe, P., Finkel, R., Cubeddu, L., & Clarke, M. (ed.) (2008). Lippincott's Illustrated Reviews: Pharmacology (4th ed.). Philadelphia: Lippincott Williams & Wilkins.

**University of North Carolina at Charlotte
College of Health and Human Services**

**Carolinas Medical Center
Nurse Anesthesia Program**

Course Information: Course Number: NUAN 6154

Course Title: Pharmacology of Non-anesthetic Agents

Course Credit and Clock Hours: 4 Graduate Credits, 56 Clock Hours

Prerequisites: NUAN 6156, Applied Physics and Chemistry for Nurse Anesthesia.

Faculty:

Dr. Joe Coyle, Lecturer in Respiratory Therapy, UNC Charlotte & Anesthesiologist,
Southeast Anesthesia Associates P.A. at Carolinas Medical Center

Office: Department of Kinesiology, UNC Charlotte, Belk 245

Phone: 704 687 2881

Email address: jcoyle7@uncc.edu

Office hours: Tuesdays 9:00 to 12:00

Questions from students can be answered on Moodle site chat area, e-mail, or by phone or in person during office hours. I will do my best to address questions that do not arrive during office hours on a daily basis, but I reserve the option of not being available some weekends and campus holidays.

Course Description: An exploration of pharmacological concepts and clinical application of non-anesthetic drugs and adjunct agents commonly used in the anesthetic arena (Spring).

Course Objectives: At the end of this course the student will:

- A. Utilize the pharmacological concepts presented in this course within the limits of the scope and standards of nurse anesthesia professional practice as delineated in the Scope and Standards for Nurse Anesthesia Practice (2005).
- B. Understand basic pharmacokinetics, pharmacodynamics, pharmacogenetics, and drug development.
- C. Synthesize emerging knowledge of genetic differences with current understanding of patient response to non-anesthetic agents.
- D. Select appropriate intravenous fluids for patients based on knowledge of fluid compartments, metabolic needs, and electrolyte handling.
- E. Learn blood products and transfusion requirements and the dangers of blood transfusion, massive transfusion, and infection control.

- F. Learn the pharmacology and clinical use of cardiovascular medications used to support the circulation, treat hypertension, and manage congestive heart failure and cardiac ischemia.
- G. Describe the interaction of endogenous and exogenously administered hormones.
- H. Learn the pharmacology of drugs used in gastrointestinal and renal disease.
- I. Understand the drugs used in the management of asthma.
- J. Discuss management of patients with cancer and disorders of the immune system.
- K. Evaluate the pharmacology and clinical usage of antibiotics.
- L. Review the treatment of patients with chronic neurological or psychiatric disorders.
- M. Discuss the impact of the utilization of recreational drugs upon anesthetic requirements.

Goals:

The first section of the course deals with basic principles of pharmacokinetics, pharmacodynamics and fluid, electrolyte, and blood utilization. During subsequent sections of the course student is expected to develop an understanding of the non-anesthetic drugs that are used in the perioperative care of surgical patients, and the general pharmacology of common drugs that patients take in general medical care with specific consideration of anesthesia implications of the drugs. The student is not expected to memorize the pharmacopoeia but gain understanding by applying broad principles to individual classes of drugs.

Course Policies:.

Grades:

Final grade will be determined by sum of exams and assignments according to the following scale:

Letter	Numerical
A	92-100
B	91-83
C	82-74
U	below 73

Attendance at class is mandatory - If class is missed, the student is responsible for the material presented during the time of absence.

Syllabus Subject to Change: The Instructor reserves the right to alter this syllabus based on best practices that fit changing circumstances.

Teaching Strategies:

Moodle Site & Contents:

The Moodle Classroom site contains the course syllabus and the material for each module and each week of the course. The site will contain pdfs of the note outlines for the class Powerpoint presentations, interesting weblinks, and related articles of interest.

Assignments and material for case discussions will be posted on the Moodle site.

Evaluation Methods: Assignments and exams will be weighted and summed to determine the final grade. The Instructor retains the right to curve exams based on performance. There will be assignments and 4 exams of equal weight on the material as outlined in the course schedule below.

Exam I: Basics Module	20 %
Exam II: Cardiovascular Drugs Module	20 %
Exam III: Hormonal, Renal, GI & Respiratory Drugs	20 %
Exam IV: CNS Drugs, Antimicrobials & Others	20 %
Assignments (discussions, presentations, participation)	<u>20 %</u>
	100 %

Required Texts:

Stoelting, R. K. (1999). Pharmacology & Physiology in Anesthetic Practice (4th ed.). Philadelphia, PA: J. B. Lippincott Company.
ISBN 0-7817-5469-0

Harvey, RA & Champe, PC. (2008) Pharmacology, (4th ed.). Philadelphia, PA: J. B. Lippincott Company; ISBN-13:978-0-7817-7155-9.

Topical/Unit Outline:

<u>Dates</u>	<u>Class Topic</u>	<u>Reading from Stoelting</u>
1/10 - 2/2	Basics Module	
	Introduction, Pharmacokinetics Review	Chapter 1 +pdf handouts
	Receptor Physiology	"
	Drug Metabolism	"
	Fluids and Body Compartments	Chapter 40
	Minerals & Electrolytes	Chapter 35
	Transfusion Therapy	Chapter 36
2/9 - 3/2	Blood- Bourne Diseases & Antisepsis	Chapter 38
	Exam 1: February 7	
	CV Pharmacology Module	
	Inotropes & Vasopressors	Chapter 12
	Vasodilators	Chapter 16
	Prostaglandins	Chapter 20
	Adrenergic Receptor Antagonists	Chapter 14
	Antihypertensive Drugs	Chapter 15
	Management of CHF, Digitalis	Chapter 13
	Management of Ischemic Heart Disease	Chapter 18
	Antidysrhythmics	Chapter 17

Exam 2: March 14
Hormonal, GI, Renal & Respiratory Medications

3/16 – 4/6

Hormones as Drugs	Chapter 23
Insulin & Oral Hypoglycemics	Chapter 24
Serotonin, Kinins, & Renin	Chapter 22
Diuretics	Chapter 25
Histamine and Related Drugs	Chapter 21
Antacids & GI Drugs	Chapter 26
Enteral & Parenteral Nutrition	Chapter 37
Lipid Disorders and Drugs	Chapter 32
Eicosanoids & NSAIDs	Chapter 11
Drugs in the Treatment of Asthma & NO	pdf's

Exam 3: April 11
CNS Drugs, Antimicrobials & Other Drugs

4/13 – 5/4

PONV	
Psychopharmacology	Chapter 19
Antiepileptic Drugs	Chapter 30
Parkinson's Disease	Chapter 31
Drugs of Abuse	Chapter 33
Herbal Medications	Chapter 34
Antimicrobials	Chapter 28
Chemotherapeutic Drugs	Chapter 29
Anticoagulants	Chapter 27

Exam 4: May 9

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Academic Integrity:

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Plagiarism is when you use or borrow another person's words or ideas without giving them credit – in other words, stealing that person's work. Regardless of where you saw or heard these words or ideas – lecture, book, Internet, website, BLOG, chat room, letter, diary, newspaper, journal article, on TV or radio – you must reference that material and the person who spoke or wrote these ideas. As an author, you must cite a person's work whenever you use their idea, opinion, or theory, quote their exact words, or use facts, statistics or diagrams, unless that information is common knowledge, meaning something that most people could reasonably be expected to know (e.g. the name of the President of

the United States is something that most people would know and you would not have to cite where you found this information)

It is your job to ask your teacher if you have any questions about how to cite a source.

Plagiarism is against the ethical code of the faculty, the researchers in this college, and UNC Charlotte. Plagiarism shows a serious lack of honesty and truthfulness and it will be dealt with harshly. The university has a process led by the Dean of Students that investigates a report and can result in penalties from failing an assignment to being expelled from the university, depending on how extreme the event .

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Special Needs: If you have a documented disability and require accommodation in this course, contact Disability Services, Fretwell 230, phone: 687 4355 voice/TDD) the first week of the semester. Information about available services may be found at <http://www.uncc.edu/disability-services>. Accommodations for learning will be arranged by that office and communicated to the Instructor. If you speak English as a second language, please inform the instructor.

Diversity Statement:

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University of North Carolina at Charlotte
College of Health and Human Services

Carolinas Medical Center
Nurse Anesthesia Program

Course Number: NUAN 6155

Course Title: Pharmacology of Anesthetic Agents

Course Credit and Clock Hours: 4 Graduate Credit Hours, 60 Clock Hours

Pre-requisites and/or Co requisites: Co-requisite: NUAN 6156, Applied Physics and Chemistry for Nurse Anesthesia

Faculty: Nurse Anesthesia Program faculty, clinical faculty (CRNAs) and other assigned guest lecturers.

Catalog Description: An exploration of the pharmacological concepts and clinical application of anesthetic drugs. *(Fall)*

Course Objectives: At the end of this course the student will:

- A. Utilize the pharmacological concepts presented in this course within the limits of the scope and standards of nurse anesthesia professional practice as delineated in the Scope and Standards for Nurse Anesthesia Practice (2005).
- B. Interpret the general principles of uptake and distribution of inhalation anesthetic agents.
- C. Understand basic pharmacokinetics, pharmacodynamics, pharmacogenetics, and drug development.
- D. Synthesize emerging knowledge of genetic differences with current understanding of patient response to non-anesthetic agents.
- E. Compare and contrast the pharmacology and clinical use of the modern inhalation anesthetics.
- F. Evaluate the pharmacology and clinical usage of various narcotic agents used in anesthesia including narcotic agonists, agonists/antagonists, antagonists.
- G. Distinguish the pharmacology and clinical use of non-narcotic agents used in anesthesia, including the barbiturates, benzodiazepines, and non-barbiturate induction drugs.
- H. Review the general physiologic functions of the autonomic nervous system as they apply to autonomic pharmacology.
- I. Apply and utilize the principles and use of neuromuscular blocking agents and the reversal agents in anesthesia.
- J. Discuss principles and applications of ACLS standards.

K. Discuss pharmacologic principles of local anesthetics.

Course Policies:

Grade Scale: (note: These are Nurse Anesthesia Program specific)

A = 92-100

B = 83-91

C = 74-82

U = 73 or below

Attendance at class is mandatory - If class is missed, the student is responsible for the material presented during the time of absence.

Syllabus Subject to Change: The Instructor reserves the right to alter this syllabus based on best practices that fit changing circumstances.

Teaching Strategies:

- A. Lecture-discussion
- B. Written assignments
- C. Assigned reading

Attendance at class is mandatory - If class is missed, the student is responsible for the material presented during the time of absence.

Evaluation Methods:

1.	Exam I	16.66%
2.	Exam II	16.66
3.	Exam III	16.66
4.	Exam IV	16.66
5.	Exam V	16.66
6.	Exam VI	<u>16.67</u>
		100 %

Grades for each section may be dependent upon more parameters than just one exam. (ie- quizzes)

Topical/Unit Outline:

Tuesday	23-Aug-11
Thursday	25-Aug-11
Tuesday	30-Aug-11
Thursday	1-Sep-11
Tuesday	6-Sep-11
Thursday	8-Sep-11
Tuesday	13-Sep-11
Thursday	15-Sep-11
Tuesday	20-Sep-11

Thursday	22-Sep-11	
Tuesday	27-Sep-11	
Thursday	29-Sep-11	Local Anesthetics I
Tuesday	4-Oct-11	Local Anesthetics II
Thursday	6-Oct-11	Induction Agents I
Thursday	13-Oct-11	Induction Agents II
Tuesday	18-Oct-11	Exam III
Thursday	20-Oct-11	Inhalation agents I
Tuesday	25-Oct-11	Inhalation agents II
Thursday	27-Oct-11	Inhalation agents III
Tuesday	1-Nov-11	Inhalation agents IV
Thursday	3-Nov-11	
Tuesday	8-Nov-11	Exam IV
Thursday	10-Nov-11	
Tuesday	15-Nov-11	
Thursday	17-Nov-11	
Tuesday	22-Nov-11	
Tuesday	29-Nov-11	
Thursday	1-Dec-11	
Tuesday	6-Dec-11	
Tuesday	13-Dec-11	

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The census date for each semester (typically the tenth day of instruction) can be found in UNC Charlotte's Academic Calendar (<http://registrar.uncc.edu/calendars/calendar.htm>) .

Department Policies:

Refer to Nurse Anesthesia Student Handbook for additional applicable policies.

Required Texts:

Barash, P.G., Cullen, B.F., Stoelting, R.K., Cahalan, M.K., & Stock, M.C. (eds.). (2009). Clinical Anesthesia (6th ed.). Philadelphia: Lippincott, Williams, & Wilkins.

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Cottrell, J. E., & Young, W. L. (Eds.). (2009). Cottrell's Neuroanesthesia (5th ed.). St. Louis: Mosby.

Foster, S. D., & Faut-Callahan, M. (Eds.). (2001). A Professional Study and Resource Guide for the CRNA. Park Ridge, IL: AANA Publishing, Inc.

Guyton, A. C., & Hall, J. E. (2005). Textbook of Medical Physiology (11th ed.). Philadelphia: W.B. Saunders Company.

Hensley, F. A., Martin, D. E., & Gravlee, G. P. (2007). A Practical Approach to Cardiac Anesthesia (4th ed.). Philadelphia: Lippincott Williams & Wilkins.

Kier, L. B., & Dowd, C. S. (2004). The Chemistry of Drugs for Nurse Anesthetists. Park Ridge, IL: AANA Publishing, Inc.

Morgan, G. E., Jr., Mikhail, M. S., & Murray, M. J. (2006). Clinical Anesthesiology (4th ed.). New York: McGraw-Hill.

Nagelhout, J. J., & Plaus, K. L. (2010). Nurse Anesthesia (4th ed.). St. Louis: Elsevier Saunders.

Hines, R.L., & Marschall, K.E. (eds.) (2008). Stoelting's Anesthesia and Co-Existing Disease (5th ed.). Philadelphia: Churchill Livingstone (Saunders Elsevier).

Jaffe, R.A., & Samuels, S.I. (eds.) (2009). Anesthesiologist's Manual of Surgical Procedures (4th ed.). Philadelphia: Lippincott, Williams & Wilkins.

Stoelting, R. K., & Hillier, S. C. (2006). Pharmacology & Physiology in Anesthetic Practice (4th ed.). Philadelphia: Lippincott Williams & Wilkins. *

Harvey, R., Champe, P., Finkel, R., Cubeddu, L., & Clarke, M. (ed.) (2008). Lippincott's Illustrated Reviews: Pharmacology (4th ed.). Philadelphia: Lippincott Williams & Wilkins.

*Primary Text for this course.

**University of North Carolina at Charlotte
College of Health and Human Services**

**Carolinas Medical Center
Nurse Anesthesia Program**

Course Number: NUAN 6156

Course Title: Applied Physics and Chemistry in Nurse Anesthesia

Course Credit and Clock Hours: 3 Graduate Credit Hours, 45 Clock Hours

Pre-requisites and/or Co requisites: Admission to the major

Faculty: Nurse Anesthesia Program faculty, clinical faculty (CRNAs) and other assigned guest lecturers.

Catalog Description: Basic laws and principles of physics, inorganic, organic, and biochemistry as they apply to clinical practice of nurse anesthesia. *(Fall)*

Course Objectives: At the end of the course the student will:

- A. Provide theory and specific rationale of Chemistry and Physics that meet the scope and standards of nurse anesthesia practice as delineated in the Scope and Standards for Nurse Anesthesia Practice (2005).
- B. Relate the general principles of physics to include diffusion, osmosis, and fluid dynamics as they relate to the practice of nurse anesthesia.
- C. Analyze the general principles of electricity, electrical safety and hazards, and magnetism and their relation to safe anesthesia administration.
- D. Understand, utilize and apply anesthetic monitoring systems.
- E. Interpret the general principles of organic chemistry and biochemistry as they relate to anesthesia practice.
- F. Diagram the working components and "safety" principles of an anesthesia gas machine.
- G. Calculate vaporization percentages and the composition of anesthetic gas flows.
- H. Distinguish between the different breathing systems used in the administration of anesthesia.

Course Policies:

Grade Scale:

A = 92-100

B = 83-91

C = 74-82

U = 73 or below

Attendance at class is mandatory - If class is missed, the student is responsible for the material presented during the time of absence.

Syllabus Subject to Change: The Instructor reserves the right to alter this syllabus based on best practices that fit changing circumstances.

Teaching Strategies:

Lecture-discussion
Written assignments
Assigned reading

Required Texts: See last page for list of required textbooks.

Evaluation Methods:

1.	Exam I	16.66%
2.	Exam II	16.66
3.	Exam III	16.66
4.	Exam IV	16.66
5.	Exam V	16.66
6.	Exam VI	<u>16.66</u>
		100 %

Grades for each section may be dependent upon more parameters than just one exam. (ie- quizzes)

Topical/Unit Outline:

22-Aug-11	Gas laws and OR hazards I
24-Aug-11	Gas laws and OR hazards II
29-Aug-11	Gas laws and OR hazards III
31-Aug-11	Compressed gases I
7-Sep-11	Compressed gases II
12-Sep-11	Exam I
14-Sep-11	Breathing systems I
19-Sep-11	Breathing systems II
21-Sep-11	Gas flows
26-Sep-11	Vaporizers
28-Sep-11	Cont gas flow machine I
3-Oct-11	Exam II

5-Oct-11	Cont gas flow machine II
12-Oct-11	Troubleshooting the Aestiva Machine
17-Oct-11	Modes of Ventilation
19-Oct-11	Cardiovascular Monitoring
24-Oct-11	Exam III
26-Oct-11	Respiratory & Metabolic Monitoring
31-Oct-11	Neurologic & Neuromuscular Monitoring
2-Nov-11	Current Monitoring Technology
7-Nov-11	Exam IV
9-Nov-11	Group 1: Clinical IV I
14-Nov-11	Group 1: Clinical IV II
16-Nov-11	Group 1: Clinical IV III
21-Nov-11	Group 1: Clinical IV IV
28-Nov-11	Exam V
30-Nov-11	
5-Dec-11	
7-Dec-11	
14-Dec-11	

University Policies:

Code of Student Responsibility:

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of academic materials, and complicity in academic dishonesty. Academic evaluations in this course include a judgment that the student's work is free from academic dishonesty of any type; and grades in this course therefore should be and will adversely affected by academic dishonesty. Students who violate the code can be expelled from UNC Charlotte. The normal penalty for a first offense is zero credit on the work involving dishonesty and further substantial reduction in the course grade. In almost all cases the course grade is reduced to F. Copies of the code can be obtained from the Dean of Students Office or <http://legal.uncc.edu/policies/ps-105.html>. Students are expected to report cases of academic dishonesty to the course's instructor.

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It is your job to ask your teacher if you have any questions about how to cite a source.

Plagiarism is against the ethical code of the faculty, the researchers in this college, and UNC Charlotte. Plagiarism shows a serious lack of honesty and truthfulness and it will be dealt with harshly. The university has a process led by the Dean of Students that investigates a report and can result in penalties from failing an assignment to being expelled from the university, depending on how extreme the event .

Special Needs: If you have a documented disability and require accommodation in this course, contact Disability Services, Fretwell 230, phone: 687 4355 voice/TDD) the first week of the semester. Information about available services may be found at <http://legal.uncc.edu/policies/ps-51.html>. Accommodations for learning will be arranged by that office and communicated to the Instructor. If you speak English as a second language, please inform the instructor.

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Department Policies:

Refer to Nurse Anesthesia Student Handbook for additional applicable policies.

Required Texts:

Barash, P.G., Cullen, B.F., Stoelting, R.K., Cahalan, M.K., & Stock, M.C. (eds.). (2009). Clinical Anesthesia (6th ed.). Philadelphia: Lippincott, Williams, & Wilkins.

Chestnut, D. H., Polley, L.S., Twen, L.C., & Wong, C.A. (eds.). (2009). Chestnut's Obstetric Anesthesia: Principles and Practice. (4th ed.). St. Louis: Mosby.

Cote, C. J., Lerman, J., & Todres, I. D. (2009). A Practice of Anesthesia for Infants and Children. (4th ed.). Philadelphia: Saunders Elsevier.

Cottrell, J. E., & Young, W. L. (Eds.). (2009). Cottrell's Neuroanesthesia (5th ed.). St. Louis: Mosby.

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Guyton, A. C., & Hall, J. E. (2005). Textbook of Medical Physiology (11th ed.). Philadelphia: W.B. Saunders Company.

Hensley, F. A., Martin, D. E., & Gravlee, G. P. (2007). A Practical Approach to Cardiac Anesthesia (4th ed.). Philadelphia: Lippincott Williams & Wilkins.

Kier, L. B., & Dowd, C. S. (2004). The Chemistry of Drugs for Nurse Anesthetists. Park Ridge, IL: AANA Publishing, Inc. *

Morgan, G. E., Jr., Mikhail, M. S., & Murray, M. J. (2006). Clinical Anesthesiology (4th ed.). New York: McGraw-Hill.

Nagelhout, J. J., & Plaus, K. L. (2010). Nurse Anesthesia (4th ed.). St. Louis: Elsevier Saunders.

Hines, R.L., & Marschall, K.E. (eds.) (2008). Stoelting's Anesthesia and Co-Existing Disease (5th ed.). Philadelphia: Churchill Livingstone (Saunders Elsevier).

Jaffe, R.A., & Samuels, S.I. (eds.) (2009). Anesthesiologist's Manual of Surgical Procedures (4th ed.). Philadelphia: Lippincott, Williams & Wilkins.

Stoelting, R. K., & Hillier, S. C. (2006). Pharmacology & Physiology in Anesthetic Practice (4th ed.). Philadelphia: Lippincott Williams & Wilkins.

Harvey, R., Champe, P., Finkel, R., Cubeddu, L., & Clarke, M. (ed.) (2008). Lippincott's Illustrated Reviews: Pharmacology (4th ed.). Philadelphia: Lippincott Williams & Wilkins.

Machine owner's manuals handouts.

*Primary Text for this course.

**University of North Carolina at Charlotte
College of Health and Human Services**

**Carolinas Medical Center
Nurse Anesthesia Program**

Course Number: NUAN 6157

Course Title: Applied Pathophysiology in Nurse Anesthesia I

Course Credit and Clock Hours: 3 Graduate Credit Hours, 45 Clock Hours

Pre-requisites and/or Co requisites: BIOL 6273 – Advanced Human Physiology,

Faculty: (Neuro) Dianne Earnhardt, CRNA, MSN; (Respiratory) Joe Coyle, MD;
(Cardiac) Eileen Parker, CRNA, MSN; (Endocrine) Chris Albanese, CRNA,
MSN. Nurse Anesthesia Program faculty and assigned guest
lecturers.

Catalog Description: A study of the basic concepts of the pathophysiologies of the nervous, respiratory, cardiac, renal and endocrine systems with emphasis on their anesthetic implications. (*Spring*)

Course Objectives: At the end of the semester the student will:

- A. Possess a strong knowledge base of basic anatomical, physiological and pathophysiological principles for the application of the Scope and Standards for Nurse Anesthesia Practice (2005).
- B. Discuss pertinent neurologic pathophysiologic states and their related anesthetic implications.
- C. Understand the process of respiration including:
 1. Pulmonary ventilation
 2. Diffusion of O₂ & CO₂ between the alveoli and the blood
 3. Transport of O₂ & CO₂ in the blood and body fluids
- D. Review common respiratory disorders and dysfunction and their implications for anesthesia care.
- E. Explore basic cardiac pathophysiologies and their impact upon anesthesia care.
- F. Consider basic endocrine pathophysiologies and their implications for anesthesia.
- G. Relate and incorporate pathophysiological conditions of the renal system into an individualized anesthetic care plan.
- H. Delineate how genetic, ethnic, and cultural variations affect pathophysiology.

Course Policies:

Grades: Final grade will be determined according to the following scale:

Letter	Numerical
A	92-100
B	91-83
C	82-74
U	below 73

Attendance at class is mandatory - If class is missed, the student is responsible for the material presented during the time of absence.

Syllabus Subject to Change: The Instructor reserves the right to alter this syllabus based on best practices that fit changing circumstances.

Teaching Strategies:

- A. Lecture and classroom instruction
- B. Assigned reading

Required Texts: See last page for list of required textbooks.

Evaluation Methods:

Neuro Grade	25% (2 exams @ 12.5% each)
Respiratory Grade	25% (1 exam)
Cardiac Grade	25% (1 exam)
Renal & Endocrine Grade	25% (2 exams @ 12.5% each)
	100%

** Grades for each section of pathophysiology may be dependent upon more parameters than just one exam. (ie- quizzes)

Topical/Unit Outline:

Monday	1/11	1300-1430	Pituitary	C. Albanese	Endocrine 1
Wednesday	1/13	1300-1430	Adrenals	C. Albanese	2
Wednesday	1/20	1300-1430	Thyroid	C. Albanese	3
Monday	1/25	0900-1000 / 1300-1330	Exam I / Parathyroid	C. Albanese	4
Wednesday	1/27	1300-1430	Pancreas	C. Albanese	5
Monday	2/1	1300-1430	Renal I	K. Ziegler	6
Wednesday	2/3	1300-1430	Renal II	K. Ziegler	7
Monday	2/8	1300-1430	A & P I	E. Parker	Cardiac 1
Wednesday	2/10	1300-1430	Endocrine Test II	C. Albanese	
Monday	2/15	1300-1430	A & P II	E. Parker	2
Wednesday	2/17	1300-1430	CAD	E. Parker	3

Monday	2/22	1300-1430	Pre op Eval	E. Parker	4
Wednesday	2/24	1300-1430	Intraop Mgmt I	E. Parker	5
Monday	3/1	1300-1430	Intraop Mgmt II	E. Parker	6
Wednesday	3/3	1300-1430	Hemo Dynamic Monitoring	Norton	7
Monday	3/15	1215-1345	Respiratory A&P	Dr. J. Coyle	Respiratory 1
Wednesday	3/17	1215-1345	Cardiac Test	NAP Faculty	
Monday	3/22	1215-1345	Control of Ventilation	Dr. J. Coyle	2
Wednesday	3/24	1215-1345	Respiratory Mechanics	Dr. J. Coyle	3
Monday	3/29	1215-1345	Ventilation & Perfusion	Dr. J. Coyle	4
Wednesday	3/31	1215-1345	Gas Exchange	Dr. J. Coyle	5
Monday	4/5	1215-1345	Patho-Physiology	Dr. J. Coyle	6
Wednesday	4/7	1215-1345	Respiratory Acid Base	Dr. J. Coyle	7
Monday	4/12	1300-1430	Neuro 1	D. Earnhardt	Neuro 1
Wednesday	4/14	1000-1200 / 1300-1430	Resp Test / Neuro 2	D. Earnhardt	2
Monday	4/19	1300-1430	Neuro 3	D. Earnhardt	3
Wednesday	4/21	1300-1430	Neuro 4	D. Earnhardt	4
Monday	4/26	0900-1000 / 1300-1330	Neuro test 1/Neuro 5 / SSEP,EEG	D. Earnhardt / Dr. G. Chadwick	5
Wednesday	4/28	1300-1430	Neuro 6	D. Earnhardt	6
Monday	5/3	1300-1430	Neuro 7	D. Earnhardt	7
Wednesday	5/5	1300-1430	Neuro 8	D. Earnhardt	8
Tuesday	5/11	1000-1200	Neuro Test II (Final Exam)	D. Earnhardt	

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Department Policies:

Refer to Nurse Anesthesia Student Handbook for additional applicable policies.

Required Texts:

Cottrell, J. E., & Young, W. L. (Eds.). (2009). Cottrell's Neuroanesthesia (5th ed.). St. Louis: Mosby.*

Hensley, F. A., Martin, D. E., & Gravlee, G. P. (2007). A Practical Approach to Cardiac Anesthesia (4th ed.). Philadelphia: Lippincott Williams & Wilkins. *

Nagelhout, J. J., & Plaus, K. L. (2010). Nurse Anesthesia (4th ed.). St. Louis: Elsevier Saunders. *

Guyton, A. C., & Hall, J. E. (2005). Textbook of Medical Physiology (11th ed.). Philadelphia: W.B. Saunders Company.*

*Primary texts for this course are: Neuro- Cottrell. Cardiac- Hensley. Respiratory- Guyton & Hall. Endocrine- Naglehout & Plaus.

Additional Texts:

Atlee, J. L. (2007). Complications in Anesthesia. (2nd ed.). Philadelphia: Saunders Elsevier.

Chestnut, D. H. (2004). Obstetric Anesthesia: Principles and Practice. (3rd ed.). St. Louis: Mosby.

Cote, C. J., Lerman, J., & Todres, I. D. (2009). A Practice of Anesthesia for Infants and Children. (4th ed.). Philadelphia: Saunders Elsevier.

Faust, R. J. (Ed.). (2002). Anesthesiology Review. (3rd ed.). Philadelphia: Churchill Livingstone Elsevier.

Foster, S. D., & Faut-Callahan, M. (Eds.). (2001). A Professional Study and Resource Guide for the CRNA. Park Ridge, IL: AANA Publishing, Inc.

Kier, L. B., & Dowd, C. S. (2004). The Chemistry of Drugs for Nurse Anesthetists. Park Ridge, IL: AANA Publishing, Inc.

Miller, R. D. (Ed.). (2010). Miller's Anesthesia. (7th. ed.). Philadelphia: Churchill Livingstone Elsevier.

Morgan, G. E., Jr., Mikhail, M. S., & Murray, M. J. (2006). Clinical Anesthesiology (4th ed.). New York: McGraw-Hill.

Nagelhout, J. J., & Plaus, K. L. (2010). Handbook of Nurse Anesthesia (4th ed.). St. Louis: Elsevier Saunders.

Stoelting, R. K., & Dierdorf, S. F. (2008). Anesthesia and Co-Existing Disease (5th ed.). New York: Churchill Livingstone.

Stoelting, R. K., & Hillier, S. C. (2006). Pharmacology & Physiology in Anesthetic Practice (4th ed.). Philadelphia: Lippincott Williams & Wilkins.

**University of North Carolina at Charlotte
College of Health and Human Services**

**Carolinas Medical Center
Nurse Anesthesia Program**

Course Number: NUAN 6158

Course Title: Applied Pathophysiology in Nurse Anesthesia II

Course Credit and Clock Hours: 3 Graduate Credit Hours, 45 Clock Hours

Pre-requisites and/or Co requisites: NUAN 6157, Applied Pathophysiology in Nurse Anesthesia I, Permission of instructor.

Faculty: Nurse Anesthesia Program faculty, clinical faculty (CRNAs) and other assigned guest lecturers.

Catalog Description: A study of advanced concepts of the pathophysiologies of the nervous, respiratory, cardiac, and hepatobiliary systems, emphasizing anesthetic implications and management. *(Fall)*

Course Objectives: At the end of the course the student will:

- A. Provide advanced concepts of anatomical, physiological and pathophysiologic theory and knowledge base for the application of the Scope and Standards for Nurse Anesthesia Practice (2005).
- B. Assess the neurological patient considering anatomy, physiology and pathophysiology to design an appropriate individualized anesthetic plan.
- C. Understand and apply the concepts of nurse anesthesia care to the patient with advanced respiratory dysfunction.
- D. Evaluate the impact of cardiac pathophysiology on anesthesia care.
- E. Apply the concept of anesthesia care to patients with hepatobiliary disease.
- F. Delineate how genetic, ethnic, and cultural variations affect pathophysiology.

Course Policies:

Grade Scale:

A = 92-100

B = 83-91

C = 74-82

U = 73 or below

Attendance at class is mandatory - If class is missed, the student is responsible for the material presented during the time of absence.

Syllabus Subject to Change: The Instructor reserves the right to alter this syllabus based on best practices that fit changing circumstances.

Teaching Strategies:

- A. Lecture-discussion
- B. Written assignments
- C. Assigned reading

Required Texts: See last page for list of required textbooks.

Evaluation Methods:

1. Exam I (Liver & EKG)	16.66%
2. Exam II (Cardiac I)	16.66
3. Exam III (Cardiac II)	16.66
4. Exam IV (Neuro I)	16.66
5. Exam V (Neuro II)	16.66
6. Exam VI (Respiratory)	<u>16.66</u>
	100%

Grades for each section may be dependent upon more parameters than just one exam. (ie- quizzes)

Topical/Unit Outline:

	1200-1300	1300-1400	1400-1500
26-Aug-11	EKG	Liver	Liver
2-Sep-11	EKG	EKG	EKG
9-Sep-11		Valvular Heart Disease	Valvular Heart Disease
16-Sep-11	Valvular Heart Disease Re-op bleeding hearts(GS)	valves / CHF Re-op bleeding hearts(GS)	CHF
23-Sep-11		Myopathies	TEE- Dr. Bensky
7-Oct-11	Alternative Surgical Tech.		Pericardial Disease
14-Oct-11		Transplants	Chs. 11 & 12
21-Oct-11		Chs. 13 & 14	Chs. 13 & 14
28-Oct-11	Chs. 15 & 16	Chs. 15 & 16	Chs. 15 & 16
4-Nov-11		Chs. 17 & 18	Chs. 17 & 18
11-Nov-11	Chs. 20 & 21	Chs. 20 & 21	Chs. 20 & 21
18-Nov-11		Respiratory	Respiratory
2-Dec-11	Respiratory	Respiratory	Respiratory
9-Dec-11			

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Chestnut, D. H., Polley, L.S., Twen, L.C., & Wong, C.A. (eds.). (2009). Chestnut's Obstetric Anesthesia: Principles and Practice. (4th ed.). St. Louis: Mosby.

Cote, C. J., Lerman, J., & Todres, I. D. (2009). A Practice of Anesthesia for Infants and Children. (4th ed.). Philadelphia: Saunders Elsevier.

Cottrell, J. E., & Young, W. L. (Eds.). (2009). Cottrell's Neuroanesthesia (5th ed.). St. Louis: Mosby.

Foster, S. D., & Faut-Callahan, M. (Eds.). (2001). A Professional Study and Resource Guide for the CRNA. Park Ridge, IL: AANA Publishing, Inc.

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Nagelhout, J. J., & Plaus, K. L. (2010). Nurse Anesthesia (4th ed.). St. Louis: Elsevier Saunders.

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**University of North Carolina at Charlotte
College of Health and Human Services**

**Carolinas Medical Center
Nurse Anesthesia Program**

Course Number: NUAN 6171

Course Title: Professional Aspects of Nurse Anesthesia I

Course Credit and Clock Hours: 1 Graduate Credit Hour, 15 Clock Hours

Pre-requisites and/or Co requisites: Corequisites: NUAN 6153, Principles of Nurse Anesthesia III and 6485, Clinical Residency in Nurse Anesthesia I,

Faculty: Nurse Anesthesia Program faculty, clinical faculty (CRNAs) and other assigned guest lecturers.

Catalog Description: Overview of the professional aspects of Nurse Anesthesia practice including history of the profession and professional associations, legal aspects, risk management, and the professional role. *(Fall)*

Course Objectives: At the close of this course the student will:

- A. Examine the legal aspects of nurse anesthesia practice.
- B. Assess the steps involved in a court trial for a malpractice case.
- C. Relate the process of Continuous Quality Improvement (CQI) to professional practice.
- D. Recite the Scope and Standards of Care as set forth by the American Association of Nurse Anesthetists (2005).
- E. Identify the historical aspects leading to the development of nurse anesthesia as a profession.
- F. Analyze the impact that the founders of the AANA had in directing the future practice of nurse anesthesia.
- G. Examine the structure and function of the American Association of Nurse Anesthetists
- H. Define a topic for a Systematic Review of the literature for the Capstone Project.

Course Policies:

Grade Scale:

A = 92-100

B = 83-91

C = 74-82

U = 73 or below

Grades for each section may be dependent upon more parameters than just one exam. (ie- quizzes)

Attendance at class is mandatory - If class is missed, the student is responsible for the material presented during the time of absence.

Syllabus Subject to Change: The Instructor reserves the right to alter this syllabus based on best practices that fit changing circumstances.

Teaching Strategies:

- A. Lecture-discussion
- B. Written assignments
- C. Assigned reading

Evaluation Methods:

In class examinations	50%
CV/Resume	25%
Presentation	<u>25%</u>
	100%

Topical/Unit Outline:

26-Aug-11	Intro, History of Profession
2-Sep-11	No class
16-Sep-11	AANA NCANA
23-Sep-11	Assessing Employment Options
7-Oct-11	Financial Management
14-Oct-11	Student Presentations Professional Presentation / Credentialing
21-Oct-11	Exam I
28-Oct-11	US Legal System
4-Nov-11	CQI
11-Nov-11	Student Presentations
18-Nov-11	Risk Mgt. Tentative
2-Dec-11	Malpractice
9-Dec-11	Exam II (Final)

University Policies:

Code of Student Responsibility:

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Special Needs: If you have a documented disability and require accommodation in this course, contact Disability Services, Fretwell 230, phone: 687 4355 voice/TDD) the first week of the semester. Information about available services may be found at <http://legal.uncc.edu/policies/ps-51.html>. Accommodations for learning will be arranged by that office and communicated to the Instructor. If you speak English as a second language, please inform the instructor.

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Department Policies:

Refer to Nurse Anesthesia Student Handbook for additional applicable policies.

Required Texts:

Barash, P.G., Cullen, B.F., Stoelting, R.K., Cahalan, M.K., & Stock, M.C. (eds.). (2009). Clinical Anesthesia (6th ed.). Philadelphia: Lippincott, Williams, & Wilkins.

Chestnut, D. H., Polley, L.S., Twen, L.C., & Wong, C.A. (eds.). (2009). Chestnut's Obstetric Anesthesia: Principles and Practice. (4th ed.). St. Louis: Mosby.

Cote, C. J., Lerman, J., & Todres, I. D. (2009). A Practice of Anesthesia for Infants and Children. (4th ed.). Philadelphia: Saunders Elsevier.

Cottrell, J. E., & Young, W. L. (Eds.). (2009). Cottrell's Neuroanesthesia (5th ed.). St. Louis: Mosby.

Foster, S. D., & Faut-Callahan, M. (Eds.). (2001). A Professional Study and Resource Guide for the CRNA. Park Ridge, IL: AANA Publishing, Inc. *

Guyton, A. C., & Hall, J. E. (2005). Textbook of Medical Physiology (11th ed.). Philadelphia: W.B. Saunders Company.

Hensley, F. A., Martin, D. E., & Gravlee, G. P. (2007). A Practical Approach to Cardiac Anesthesia (4th ed.). Philadelphia: Lippincott Williams & Wilkins.

Kier, L. B., & Dowd, C. S. (2004). The Chemistry of Drugs for Nurse Anesthetists. Park Ridge, IL: AANA Publishing, Inc.

Morgan, G. E., Jr., Mikhail, M. S., & Murray, M. J. (2006). Clinical Anesthesiology (4th ed.). New York: McGraw-Hill.

Nagelhout, J. J., & Plaus, K. L. (2010). Nurse Anesthesia (4th ed.). St. Louis: Elsevier Saunders.

Hines, R.L., & Marschall, K.E. (eds.) (2008). Stoelting's Anesthesia and Co-Existing Disease (5th ed.). Philadelphia: Churchill Livingstone (Saunders Elsevier).

Jaffe, R.A., & Samuels, S.I. (eds.) (2009). Anestheologist's Manual of Surgical Procedures (4th ed.). Philadelphia: Lippincott, Williams & Wilkins.

Stoelting, R. K., & Hillier, S. C. (2006). Pharmacology & Physiology in Anesthetic Practice (4th ed.). Philadelphia: Lippincott Williams & Wilkins.

Harvey, R., Champe, P., Finkel, R., Cubeddu, L., & Clarke, M. (ed.) (2008). Lippincott's Illustrated Reviews: Pharmacology (4th ed.). Philadelphia: Lippincott Williams & Wilkins.

Waugaman, Wynne R., Foster, Scot D., & Rigor, Benjamin M. (1999). Principles and Practice of Nurse Anesthesia (3rd ed.). Stanford: Appleton and Lange.

AANA Website/Archives/AANA History

*Primary Text for this course.

**University of North Carolina at Charlotte
College of Health and Human Services**

**Carolinas Medical Center
Nurse Anesthesia Program**

Course Number: NUAN 6172

Course Title: Professional Aspects of Nurse Anesthesia Part II

Course Credit and Clock Hours: One Graduate Credit Hour, 15 Clock Hours.

Pre-requisites and/or Co requisites:

Pre-requisite: NUAN 6171- Professional Aspects of Nurse Anesthesia I

Corequisite: NUAN 6486- Clinical Residency in Nurse Anesthesia II

Faculty: Karen Lucisano, CRNA, MSN & assigned guest lecturers.

Catalog Description: Overview of the professional aspects of nurse anesthesia practice including economic considerations, political challenges, evolving role in the health care system, administrative responsibilities, practice regulations, and ethical principles. *(Spring)*

Course Objectives: At the close of this course the student will:

- A. Apply the essentials of the scope and standards of nurse anesthesia professional practice as delineated in the Scope and Standards for Nurse Anesthesia Practice (2005).
- B. Analyze the evolution and practice implications of the AANA position statement on DNP as Entry into Practice.
- C. Delineate the North Carolina Board of Nursing's role in regulation of nurse anesthesia practice.
- D. Examine the process of ethical decision making in professional practice within the context of various cultural and social values.
- E. Understand the process of health care delivery in the United States as it applies to nurse anesthesia practice.

Course Policies:

Grade Scale: Final grade will be determined according to the following scale:

Letter	Numerical
A	92-100
B	91-83
C	82-74
U	below 73

Grades for each section may be dependent upon more parameters than just one exam. (ie- quizzes)

Attendance at class is mandatory - If class is missed, the student is responsible for the material presented during the time of absence.

Syllabus Subject to Change: The Instructor reserves the right to alter this syllabus based on best practices that fit changing circumstances.

Teaching Strategies:

- A. Lecture-discussion
- B. Written assignments
- C. Assigned reading

Evaluation Methods:

Examinations	40%
Preparation for Lobby Day/Paper	30%
Presentation	<u>30%</u>
	100%

Required Texts: Please refer to textbooks listed for previous program courses.

Foster, SD, Faut-Calahan, M. (2001) *A Professional Study Guide and Resource for the CRNA*. Park Ridge, IL AANA Publishing, INC.

AANA Website/Archives/AANA History

Naglhout, JJ, Zaglaniczny, KL (2005) *Nurse Anesthesia* (3rd ed.) St. Louis, MS: Elsevier Saunders.

Topical/Unit Outline:

Date	Class Time	Assigned reading from Foster (Chapter)	Lecture Topic	Lecturer
1/13	1400-1500	17	Course Overview/Assert Influi /State Reps	Karen Lucisano
1/28	1400-1500	15	Reimbursement for Services	Karen Lucisano
2/3	1400-1500	10	Healthcare Delivery in the US	Martha Whitecotton
2/10	1400-1500	24	Risk management	Sheila Cox
2/16	All Day	Review CH 17	NCANA Lobby Day & Reception in Raleigh	Karen + all students
2/17	1400-1500	no class		
2/24	1400-1500	12	Administrative Management	Diane Blanchfield
3/3	1400-1500		Student Presentations	Karen Lucisano
3/24	1400-1500		NCANA President	Jerry Coy
3/31	1300-1530	7	NCBON Impaired Provider / Peer Assistance/ State Regulation	Kugler & McMullen
4/7	1400-1500	20	Ethical Decision Making	Leslie Golden
4/14	1400-1530	8	Student Presentations // Prof Regulation	Karen Lucisano
4/21	1400-1600		Student Presentations	Karen Lucisano

University Policies:

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Department Policies:

Refer to Nurse Anesthesia Student Handbook for additional applicable policies.

**University of North Carolina at Charlotte
College of Health and Human Services**

**Carolinas Medical Center
Nurse Anesthesia Program**

Course Number: NUAN 6485

Course Title: Clinical Residency in Nurse Anesthesia I

Course Credit and Clock Hours: 5 Semester Graduate Credit Hours 600 Clock /
Practice Hours

Pre-requisites and/or Co requisites: Pre-requisites: NUAN 6153, Principles of Nurse
Anesthesia III and satisfactory completion of Clinical Orientation, (CR O).

Faculty: Clinical Staff at primary required and non-primary enrichment sites

Catalog Description: Clinical application of didactic material from the nurse anesthesia curriculum through the beginning level practice in the role of a nurse anesthetist. Conferences during the clinical residency provide opportunity to review current research and practice issues. *(Fall)*

Course Objectives: At the end of the course the student will:

- A. Learn the beginning essentials of the scope and standards of nurse anesthesia practice as delineated in the Scope and Standards for Nurse Anesthesia Practice (2005).
- B. Evaluate the general surgical patient through a pre-operative assessment culminating in an appropriate individualized anesthesia plan in collaboration with a Certified Registered Nurse Anesthetist.
- C. Synthesize the set-up of all gas machines, adjunct anesthesia equipment, monitors, and pharmaceutical agents necessary to anesthetize the general surgical patient.
- D. Develop proficiency in normal airway maintenance to include: airway insertion, mask ventilation, laryngeal-mask airway insertion, intubation and extubation.
- E. Relate the condition of the post-anesthetic patient to recovery room personnel accurately, efficiently, and completely.
- F. Document a complete and accurate record of the general surgical patient's anesthetic course.
- G. Utilize effective culturally sensitive communication with respect and caring for all patients and members of the health care team.

- H. Incorporate current and emerging genetic/genomic evidence in providing advanced nursing care to individuals and families while accounting for patient values and clinical judgment.
- I. Collaborate with student colleagues to perform a systematic review of the literature on a selected topic.
- J. Successfully complete Oral Comprehensive Exam II
- K. Demonstrate mastery of basic anesthesia Principles on Oral Comprehensive Exam II.

Course Policies:

Grade Scale:

Pass/Fail

Syllabus Subject to Change: The Instructor reserves the right to alter this syllabus based on best practices that fit changing circumstances.

Clinical Policies: Refer to Carolinas HealthCare System Nurse Anesthesia Program Student Handbook

Teaching Strategies:

- A. Clinical experience with daily evaluations
- B. Comprehensive Oral Examination #2

Evaluation Methods:

Criteria:*

- | | | |
|----|---|------------|
| 1. | Clinical Experience:
Meet the stated objectives for the clinical practicum | P/F |
| 2. | Comprehensive Examination: | P/F |
| 3. | Capstone Project Progress | <u>P/F</u> |
| | <i>All three components must be successfully passed.</i> | P/F |

* Please refer to the Clinical Residency Failure Probation/Suspension/Dismissal of Students Policy.

Topical/Unit Outline: This is a clinical course with supervised individual case planning, case management, and evaluation of care with a clinical preceptor.

University Policies:

Code of Student Responsibility:

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The student is responsible for complying with requirements in affiliation agreements affecting student in clinical setting experiences.

If there is a disaster (i.e., fire, bomb threat) or any event at an agency that results in a student being unable to engage in the clinical educational responsibilities, please report the disaster or event to the same contacts that you would report any other development affecting your clinical attendance.

Department Policies:

Refer to Nurse Anesthesia Student Handbook for additional applicable policies.

Required Texts:

Cottrell's Neuroanesthesia	Cottrell, Young 5th ed
Textbook of Medical Physiology	Guyton & Hall 11 th ed
Nurse Anesthesia	Nagelhout & Plaus 4th ed.
Stoelting's Anesthesia & Coexisting Disease	Hines & Marschall 5th ed

Anesthesiologist's Manual of Surgical Procedures	Jaffee & Samuels 4th ed
Practice of Anesthesia in Infants and Children	Cote, Lerman, Todres 4th ed
Chestnut's Obstetric Anesthesia: Principles and Practice	Chestnut, Polley, Tsen, & Wong 4th. ed.
Clinical Anesthesiology	Morgan, Murray & Mikhail, 4th ed
Pharmacology and Physiology in Anesthetic Practice	Stoelting & Hillier 4 th ed
Lippincott's Illustrated Reviews: Pharmacology, 4th edition.	Harvey, Champe, Finkle, Cubeddu, Clarke, 4th ed.
A Practical Approach to Cardiac Anesthesia	Hensley, Martin, & Gravlee, 4th ed
Clinical Anesthesia	Barash, Cullen, Stoelting, Cahalan, & Stock 6 th ed
A Professional Study and Resource Guide for the CRNA	Foster & Faut-Callahan
The Chemistry of Drugs for Nurse Anesthetists	Kier & Dowd

University of North Carolina at Charlotte
College of Health and Human Services

Carolinas Medical Center
Nurse Anesthesia Program

Course Number: NUAN 6486

Course Title: Clinical Residency in Nurse Anesthesia II

Course Credit and Clock Hours: 5 Semester Graduate Credit Hours 600 Clock /
Practice Hours

Pre-requisites and/or Co requisites: NUAN 6485 – Clinical Residency in Nurse
Anesthesia I

Faculty: Clinical Staff at primary required and non primary enrichment sites

Catalog Description: Continuation of the clinical application of didactic material from the nurse anesthesia curriculum with focus on utilization of additional anesthesia techniques and increased skill development. Conferences during the clinical residency provide opportunity to review current research and practice issues.

Course Objectives: At the end of the course the student will:

- A. Apply the essentials of the scope and standards of nurse anesthesia practice as delineated in the Scope and Standards for Nurse Anesthesia Practice (2005).
- B. Demonstrate continued competency for all clinical objectives in Clinical Residency I.
- C. Formulate comprehensive individualized anesthesia plan (IAPs) for all surgical patients on an independent basis to include ASA class III and IV patients.
- D. Develop basic skills for the administration and management of: all types of regional anesthesia, central venous access lines, difficult airways and specialty anesthetics (i.e., pediatrics, geriatrics, cardiovascular, neurological, and obstetric patients).
- E. Manage anesthetic complications with minimal assistance from the CRNA.
- F. Utilize effective culturally sensitive communication with respect and caring for all patients and members of the health care team.
- G. Incorporate current and emerging genetic/genomic evidence in providing advanced nursing care to individuals and families while accounting for patient values and clinical judgment.
- H. Collaborate with student colleagues to perform a systematic review of the literature on a selected topic.

- I. Successfully complete Self Evaluation Examination I
- J. Demonstrate mastery of basic anesthesia Principles on Self Evaluation Examination I.

Course Policies:

Grade Scale:

Pass/Fail

Syllabus Subject to Change: The Instructor reserves the right to alter this syllabus based on best practices that fit changing circumstances.

Clinical Policies: Refer to Carolinas HealthCare System Nurse Anesthesia Program Student Handbook

Teaching Strategies:

- A. Clinical experience with daily evaluations
- B. Self Evaluation Examination (SEE test)

Evaluation Methods:

Criteria:*

- | | | |
|----|--|------------|
| 1. | Clinical Experience: | P/F |
| | Meet the stated objectives for the clinical practicum | |
| 2. | Comprehensive Examination: | P/F |
| 3. | Capstone Project Progress | <u>P/F</u> |
| | <i>All three components must be successfully passed.</i> | P/F |

* Please refer to the Clinical Residency Failure Probation/Suspension/Dismissal of Students Policy.

Topical/Unit Outline: This is a clinical course with supervised individual case planning, case management, and evaluation of care with a clinical preceptor. Full time clinical assignments including night, call, and weekend assignments not to exceed 40 hours per week. Shifts may be up to and including 16 hours in length. Assignments to include essential and nonessential clinical sites.

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Religious Accommodation:

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Department Policies:

Refer to Nurse Anesthesia Student Handbook for additional applicable policies.

Required Texts:

Cottrell's Neuroanesthesia	Cottrell, Young 5th ed
Textbook of Medical Physiology	Guyton & Hall 11 th ed
Nurse Anesthesia	Nagelhout & Plaus 4th ed.
Stoelting's Anesthesia & Coexisting Disease	Hines & Marschall 5th ed
Anesthesiologist's Manual of Surgical Procedures	Jaffee & Samuels 4th ed

Practice of Anesthesia in Infants and Children	Cote, Lerman, Todres 4th ed
Chestnut's Obstetric Anesthesia: Principles and Practice	Chestnut, Polley, Tsen, & Wong 4th. ed.
Clinical Anesthesiology	Morgan, Murray & Mikhail, 4th ed
Pharmacology and Physiology in Anesthetic Practice	Stoelting & Hillier 4 th ed
Lippincott's Illustrated Reviews: Pharmacology, 4th edition.	Harvey, Champe, Finkle, Cubeddu, Clarke, 4th ed.
A Practical Approach to Cardiac Anesthesia	Hensley, Martin, & Gravlee, 4th ed
Clinical Anesthesia	Barash, Cullen, Stoelting, Cahalan, & Stock 6 th ed
A Professional Study and Resource Guide for the CRNA	Foster & Faut-Callahan
The Chemistry of Drugs for Nurse Anesthetists	Kier & Dowd

**University of North Carolina at Charlotte
College of Health and Human Services**

**Carolinas Medical Center
Nurse Anesthesia Program**

Course Number: NUAN 6487

Course Title: Clinical Residency in Nurse Anesthesia III

Course Credit and Clock Hours 5 Semester Graduate Credit Hours 600 Clock / Practice Hours

Pre-requisites and/or Co requisites: NUAN 6486 – Clinical Residency in Nurse Anesthesia II.

Faculty: Clinical Staff at primary required and non-primary enrichment sites

Catalog Description: Incorporation of the content nurse anesthesia curriculum with opportunities to begin synthesis of all didactic material and techniques for effective and efficient clinical practice. Conferences during the clinical residency provide opportunity to review current research and practice issues.

Course Objectives: At the end of the course the student will:

- A. Incorporate the essentials of the scope and standards of nurse anesthesia practice as delineated in the Scope and Standards for Nurse Anesthesia Practice (2005).
- B. Demonstrate continued competency for all clinical objectives in Clinical Residency I and II.
- C. Exhibit ability to function independently, with minimal assistance for all types of surgical procedures.
- D. Manage most intra-anesthetic emergencies with little or no assistance.
- E. Incorporate professional aspects, responsibilities, philosophies and attitudes consistent with the practice of a certified registered nurse anesthetist.
- F. Incorporate current and emerging genetic/genomic evidence in providing advanced nursing care to individuals and families while accounting for patient values and clinical judgment.
- G. Collaborate with student colleagues to perform a systematic review of the literature on a selective topic.
- H. Successfully complete Oral Comprehensive Exam III.
- I. Demonstrate mastery of advanced anesthesia Principles on Oral Comprehensive Exam III.

Course Policies:

Grade Scale:

Pass/Fail

Syllabus Subject to Change: The Instructor reserves the right to alter this syllabus based on best practices that fit changing circumstances.

Clinical Policies: Refer to Carolinas HealthCare System Nurse Anesthesia Program Student Handbook

Teaching Strategies:

- A. Clinical experience with daily evaluations
- B. Comprehensive Oral Examination #3

Evaluation Methods:

- A. Grade: Pass/Fail
 - B. Criteria: *
 - 1. Clinical Experience: P/F
Meet the stated objectives for the clinical practicum
 - 2. Comprehensive Examination: P/F
 - 3. Capstone Project Progress P/F
- All three components must be successfully passed.* P/F

* Please refer to the Clinical Residency Failure Probation/Suspension/Dismissal of Students Policy.

Topical/Unit Outline: This is a clinical course with supervised individual case planning, case management, and evaluation of care with a clinical preceptor.

University Policies:

Code of Student Responsibility:

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Academic Integrity:

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of academic materials, and complicity in academic dishonesty. Academic evaluations in this course include a judgment that the student's work is free from academic dishonesty of any type; and grades in this course therefore should be and will adversely affected by academic dishonesty. Students who violate the code can be expelled from UNC Charlotte. The normal penalty for a first offense is zero credit on the work involving dishonesty and further substantial reduction in the course grade. In almost all cases the course grade is reduced to F. Copies of the code can be obtained from the Dean of Students Office or <http://legal.uncc.edu/policies/ps-105.html>. Students are expected to report cases of academic dishonesty to the course's instructor.

Plagiarism is when you use or borrow another person's words or ideas without giving them credit – in other words, stealing that person's work. Regardless of where you saw or heard these words or ideas – lecture, book, Internet, website, BLOG, chat room, letter, diary, newspaper, journal article, on TV or radio – you must reference that material and the person who spoke or wrote these ideas. As an author, you must cite a person's work whenever you use their idea, opinion, or theory, quote their exact words, or use facts, statistics or diagrams, unless that information is common knowledge, meaning something that most people could reasonably be expected to know (e.g. the name of the President of the United States is something that most people would know and you would not have to cite where you found this information)

It is your job to ask your teacher if you have any questions about how to cite a source.

Plagiarism is against the ethical code of the faculty, the researchers in this college, and UNC Charlotte. Plagiarism shows a serious lack of honesty and truthfulness and it will be dealt with harshly. The university has a process led by the Dean of Students that investigates a report and can result in penalties from failing an assignment to being expelled from the university, depending on how extreme the event .

Special Needs: If you have a documented disability and require accommodation in this course, contact Disability Services, Fretwell 230, phone: 687 4355 voice/TDD) the first week of the semester. Information about available services may be found at <http://legal.uncc.edu/policies/ps-51.html>. Accommodations for learning will be arranged by that office and communicated to the Instructor. If you speak English as a second language, please inform the instructor.

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as defined in the UNC Charlotte Sexual Harassment Policy, is prohibited, even when carried out through computers or other electronic communications systems, including course-based chat rooms or message boards.

Religious Accommodation:

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Department Policies:

Refer to Nurse Anesthesia Student Handbook for additional applicable policies.

Required Texts:

Atlee, J. L. (2007). Complications in Anesthesia. (2nd ed.). Philadelphia: Saunders Elsevier.

Chestnut, D. H. (2004). Obstetric Anesthesia: Principles and Practice. (3rd ed.). St. Louis: Mosby.

Cote, C. J., Lerman, J., & Todres, I. D. (2009). A Practice of Anesthesia for Infants and Children. (4th ed.). Philadelphia: Saunders Elsevier.

Cottrell, J. E., & Young, W. L. (Eds.). (2009). Cottrell's Neuroanesthesia (5th ed.). St. Louis: Mosby.

Faust, R. J. (Ed.). (2002). Anesthesiology Review. (3rd ed.). Philadelphia: Churchill Livingstone Elsevier.

Foster, S. D., & Faut-Callahan, M. (Eds.). (2001). A Professional Study and Resource Guide for the CRNA. Park Ridge, IL: AANA Publishing, Inc.

Guyton, A. C., & Hall, J. E. (2005). Textbook of Medical Physiology (11th ed.). Philadelphia: W.B. Saunders Company.

Hensley, F. A., Martin, D. E., & Gravlee, G. P. (2007). A Practical Approach to Cardiac Anesthesia (4th ed.). Philadelphia: Lippincott Williams & Wilkins.

Kier, L. B., & Dowd, C. S. (2004). The Chemistry of Drugs for Nurse Anesthetists. Park Ridge, IL: AANA Publishing, Inc.

Miller, R. D. (Ed.). (2010). Miller's Anesthesia. (7th ed.). Philadelphia: Churchill Livingstone Elsevier.

Morgan, G. E., Jr., Mikhail, M. S., & Murray, M. J. (2006). Clinical Anesthesiology (4th ed.). New York: McGraw-Hill.

Nagelhout, J. J., & Plaus, K. L. (2010). Nurse Anesthesia (4th ed.). St. Louis: Elsevier Saunders.

Nagelhout, J. J., & Plaus, K. L. (2010). Handbook of Nurse Anesthesia (4th ed.). St. Louis: Elsevier Saunders.

Stoelting, R. K., & Dierdorf, S. F. (2008). Anesthesia and Co-Existing Disease (5th ed.). New York: Churchill Livingstone.

Stoelting, R. K., & Hillier, S. C. (2006). Pharmacology & Physiology in Anesthetic Practice (4th ed.). Philadelphia: Lippincott Williams & Wilkins.

Harvey, R., Champe, P., Finkel, R., Cubeddu, L., & Clarke, M. (ed.) (2008). Lippincott's Illustrated Reviews: Pharmacology (4th ed.). Philadelphia: Lippincott Williams & Wilkins.

**University of North Carolina at Charlotte
College of Health and Human Services**

**Carolinas Medical Center
Nurse Anesthesia Program**

Course Number: NUAN 6489

Course Title: Clinical Residency in Nurse Anesthesia IV

Course Credit and Clock Hours: 5 Semester Graduate Credit Hours 600 Practice /
Clock Hours

Pre-requisites and/or Co requisites: Prerequisite: NUAN 6487 – Clinical Residency in
Nurse Anesthesia III.

Faculty: Clinical Staff at primary required and non primary enrichment sites

Catalog Description: Final residency for synthesis of all didactic material and
techniques of nurse anesthesia clinical practice, promotion of professional
practice, and preparation of the student for the national certification examination.
Conferences during the clinical residency provide opportunity to review current
research and practice issues.

Course Objectives: At the end of the course the student will:

- A. Demonstrate incorporation, utilization and synthesis of the essentials of the Scope and Standards for Nurse Anesthesia Practice (2005) in all patient care.
- B. Demonstrate continued competency for all objectives in Clinical Residency I, Clinical Residency II, and Clinical Residency III.
- C. Exhibit ability to function independently for all types of surgical procedures.
- D. Manage intra-anesthetic emergencies with little or no assistance.
- E. Portray a professional philosophy and attitude consistent with the professional practice of a Certified Registered Nurse Anesthetist.
- F. Incorporate current and emerging genetic/genomic evidence in providing advanced nursing care to individuals and families while accounting for patient values and clinical judgment.
- G. Disseminate systematic review of the literature to professional organizations.
- H. Successfully complete Self Evaluation Exam II.
- I. Demonstrate mastery of advanced anesthesia principles on Self Evaluation Exam II.

Course Policies:

Grade Scale:

Pass/Fail

Syllabus Subject to Change: The Instructor reserves the right to alter this syllabus based on best practices that fit changing circumstances.

Clinical Policies: Refer to Carolinas HealthCare System Nurse Anesthesia Program Student Handbook

Teaching Strategies:

- A. Clinical experience with daily evaluations
- B. Comprehensive Written Examination (SEE #2)

Evaluation Methods:

- A. Grade: Pass/Fail
 - B. Criteria: *
 - 1. Clinical Experience: P/F
Meet the stated objectives for the clinical practicum
 - 2. Comprehensive Examination: P/F
 - 3. Capstone Project Progress P/F
- All three components must be successfully passed.* P/F

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Topical/Unit Outline: This is a clinical course with supervised individual case planning, case management, and evaluation of care with a clinical preceptor.

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