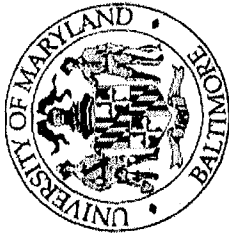


Enclosure 7 Curriculum Information

- NAP Class Schedule Plan
- NAP Plan of Study
- NAP Course Descriptions
- All Course Syllabi
- CCNA transcript (sample)
- Professional Aspects Seminar Agenda
- Faculty Development Workshops 2006
- NAP FAQ
- NAP Brochure
- Table of COA Required Hours and Courses

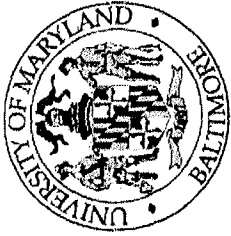


UNIVERSITY OF MARYLAND

SCHOOL OF NURSING

NURSE ANESTHESIA FALL 2006 CLASS SCHEDULE

COURSE	Monday	Tuesday	Wednesday	Thursday	Friday
CLASS 2008					
NPHY 612 Physiology and Pathophysiology	11:00 - 2:00				
NURS 613 Principles of Nurse Anesthesia I		9:00 - 12:00			
NURS 616 Chemistry of Anesthesia Nursing				11:30 - 1:30	
NURS 617 Technology and Physics of Anesthesia		1:00 - 4:00			
NURS 623 Advanced Assessment of the Critically Ill			9:00 - 11:00 Lab	9:00 - 11:00	
NURS 723 Clinical Pharmacology and Therapeutics				6:00 - 9:00 PM	
CLASS 2007					
NURS 657 Anesthesia Nursing Practicum I	9:00 - 11:00				
NURS 615 Regional Anesthesia	12:00 - 2:00				
NURS 642 Professional Aspects of Anesthesia Nur	2:00 - 3:00				
CLASS 2006					
NURS 659 Organizational Systems in Health Care	2:00 - 5:00				
NURS 675 Anesthesia Nursing Seminar II	9:00 - 2:00				
NURS 676 Anesthesia Nursing Practicum V					
August 28th First Day of Classes for Fall Semester					



UNIVERSITY OF MARYLAND

SCHOOL OF NURSING

NURSE ANESTHESIA SPRING 2007 CLASS SCHEDULE

COURSE	Monday	Tuesday	Wednesday	Thursday	Friday
CLASS 2008					
NPY 620 Pathophys Alterations in the Critically Ill		10:00-12:00			
NURS 604 Pharmacology of Anesthesia Nursing	1:00-4:00				
NURS 614 Principles of Anesthesia Nursing II		1:00-4:00		Lab/Shadow TIME TBD	
NURS 701 Sci and Research for Adv Prac Nursing	5:00-9:00				
CLASS 2007					
NURS 622 Sys & Populations in Health Care	Web based				
NURS 672 Principals of Anesthesia Nurs IV	9:00-12:00				
NURS 673 Anesthesia Nursing Practicum III	CLINICAL				

January 22, 2007 First Day of Classes

**Fall 2006 Content Outline:
Nurse Anesthesia Program**

	Week	NPHY612 Phys/Patho Monday	NURS613 Anes Nurs I Tuesday	NURS617 Tech & Physics Tuesday	NURS623 LAB Wednesday (?)	NURS623 ADV Assessment Thursday
1	8/28	Cell Biology	Anesthesia Overview	Monitors and Anesthesia		Course Overview
2	9/4	Labor Day – No Class	Anatomy: The Brachial & Cervical Plexus	Pulse Ox & Transducers	PACEP COURSE	Oxygenation: Monitoring & Delivery
3	9/11	Cancer (Cell)	Anatomy: Lower Extremity	Physics Review	As scheduled	Oxy: Gas Exchange
4	9/18	Hematologic	Positioning	Gas Laws	As scheduled	Oxy: Consumption & Ventilation
5	9/25	Immunity, Infection, Inflammation	Temperature & Infection Control	EXAM I (2hrs)	As scheduled	PFT's, Ventilator Curves & Waves
6	10/2	EXAM I Musculoskeletal	EXAM I (2hrs)	OR Gas Supply and Cylinders OSHA, FDA, ASA Guidelines	Ventilators - STC	Quiz I Myocardial Injury
7	10/9	Neurologic; Neuromuscular disorders	Anatomy of the Spinal Cord	Time Constants	THURSDAY 2:30-4:30	ECG Interpretation
8	10/16	Pain (Renn) Integrative Body Functions	TBD	Breathing Systems	THURSDAY 2:30-4:30	Neuro Assessment
9	10/23	Respiratory	Airway Anatomy	The Anesthesia Machine #1	FRIDAY IN SON	CXR Interpretation
10	10/30	Systemic Circulation	Apnea & Hypoxia	The Anesthesia Machine #2 & Ventilators	As scheduled	Quiz II GI Assessment
11	11/6	The Heart	Basic Airway Management	EXAM II (2hrs)	As scheduled	Renal Assessment – Fluids and electrolytes
12	11/13	EXAM II Hormone	EXAM II (2hrs)	Vaporizers	As scheduled:	Hematological Assessment
13	11/20	Renal I: Alterations of fluid-electrolyte and acid-base balance	Intraoperative Fluid Administration: Colloid and Crystalloid	Uptake and Distribution of VA	NO LAB	Thanksgiving – No Class
14	11/27	Renal II: Disorders of renal function & urine elimination	Inhalational Agents 1	Clinical Applications of Uptake and Distribution	As scheduled: ORAL BOARDS	Nutrition Assessment
15	12/4	Endocrine	Inhalational Agents 2	TBD	As scheduled: ORAL BOARDS	Pain Assessment
16	12/11	Course Evaluations	Preoperative Exam	FINAL EXAM	NO CLINICAL	Quiz III
17	12/18	Exam III (110 min)	FINAL EXAM			

**Combine all 2006 Content Outline:
Nurse Anesthesia Program**

		MONDAY All in the office (?)	TUESDAY Lou Clinical	WEDNESDAY Michelle Clinical	THURSDAY
		Phase II 2006 & 2007		Phase I	
		NURS 675 9-11 NURS 642/615 12-2 Monday	NURS612 Phys/Patho Monday	NURS617 Tech & Physics Tuesday 1-4	NURS616 Chemistry Thurs 11-1:30
1	8/28	9-9:30 Course Overview 9:30 – 11:30 Anesthesia & The Peripheral Nervous System I 12-12:30 Baxter (Faculty)	Cell Biology (D'Angelo)	Monitors and Anesthesia 1	Course Overview
2	9/4	Labor Day No Classes	Anatomy: Cervical, Upper & Lower Extremity (Heindel)	Monitors and Anesthesia 2	Oxygenation: Monitoring & Delivery
3	9/11	Anesthesia & The Peripheral Nervous System II (D'Angelo) N615- Case Book Disc. 12:30 BAXTER (D'Angelo)	Cancer (Cell)	Physics Review (Howie)	Oxy: Gas Exchange
4	9/18	The Central Nervous System (Heindel) N642 – Prof Aspects Take Home Quiz (Heindel)	Hematologic	Gas Laws (Crowley)	Oxy: Consumption & Ventilation
5	9/25	Cardiovascular System (Duell) N642: Study Day	Immunity, Infection, Inflammation 617 Review 0800	EXAM I (2hrs) Faculty	PFT's, Ventilator Curves & Waves
6	10/2	Cardiac Output, Loops, MI, Valves & IHSS EXAM I (Duell) N615 Regional Case Discussion.	EXAM I Musculoskeletal Faculty	OR Gas Supply and Cylinders OSHA, FDA, ASA Guidelines	Quiz I Myocardial Injury
7	10/9	Respiratory I: Airway Anatomy & Gas Transport, Control of Ventilation (D'Angelo)	Anatomy of the Spinal Cord (Contley)	Time Constants (D'Angelo)	ECG Interpretation

**Combined Spring 2007 Content Outline:
Nurse Anesthesia Program**

		MONDAY				Tuesday		Wednesday	Thursday	Friday
		9-12	1-4	5-9		10-12	1-4			
	2007	Phase II					Phase I			
	Week	NURS 672 Adv Principals Monday	NURS604 Pharmacology of NA Monday	NURS701 Science & Research Monday	NPHY620 Patho of the Critically Ill Tuesday	NURS614 Principals of Anesthesia II Tuesday	NURS623 LAB Wednesday			
1	1/22	Review Course Syllabus <i>PAIN</i> (Maye)	Pharmacodynamics/kinetics of IV Agents <i>D'Angelo</i> CULTURAL DIVERSITY TRAINING		Course Overview; Group assignment & planning; "How give a presentation"	General and Laparoscopic Surgery <i>Duell</i>				
2	1/29	Case Discussion: <i>Obesity</i>			Cell Metabolism I: Glucose Metabolism (Renn)	ENT/OSA <i>D'Angelo</i>				
3	2/5	Case Discussion: <i>OB Anesthesia</i> (Pelligrini)	IV Anesthetics I: Propofol, Etomidate, Barbs Neuromuscular Function & Action Potentials <i>D'Angelo</i>		Cell Metabolism II: Lipid & Protein Metabolism)	Obesity & Anesthesia <i>D'Angelo</i>	Simulator Orientation <i>All groups</i>			
4	2/12	EXAM I	Neuromuscular Blocking Agents & Reversals <i>D'Angelo</i>		RBC Physiology in Critical Illness	Exam I	Airway Management/Nerve Stim <i>All groups</i>			
5	2/19	TBD	TBD		Coagulopathies in Critical Illness (Von Rueden)	TBD				
6	2/26	Case Discussion: <i>Regional Anesthesia</i> (Griffin)	Exam I		Immunosuppression (McLeskey)	Orthopedic Anesthesia <i>Heindel</i>	Induction Lab 1 - a Clinical Obs - b Off - c			
7	3/5	Case Discussion: <i>Trauma</i> <i>11:30 BIS Presentation</i>	<i>11:30 BIS Presentation</i> Opioids <i>Conley</i>		Hypothalamic Pituitary Axis in Critical Illness	Anesthesia & Endocrine Disorders <i>STUDENT</i>	Induction Lab 1 - c Clinical Obs - a Off - b			
8	3/12	Oral Board I	Sedative, Anxiolytics & Amnestics <i>D'Angelo</i>		Midterm Exam	Anesthesia and Neurosurgery <i>Shrivman</i>	Induction Lab 1 - b Clinical Obs - c Off - a			
9	3/19	Spring Break	Spring Break	Spring Break	Spring Break	Spring Break	Spring Break			

10	3/26	Case Discussion: <i>Critical Care</i> (D'Angelo)	N614 EXAM II		Acute brain injury	N604 - Sodium Channel Blockers: Local Anesthetics <i>Heindel</i>		Intraoperative Management Lab - a Clinical Obs - b Off - c	
11	4/2	EXAM II	Exam II		Acute Lung Injury & Acute Respiratory Distress Syndrome	Anesthesia for Neuromuscular Dz/MH <i>Duell</i>		Intraoperative Management Lab - c Clinical Obs - a Off - b	
12	4/9	ORAL EXAM II	Anesthesia & Substance Abuse <i>Downey</i>		Reperfusion Injury (Von Rueden)	Anesthesia and COPD/Respiratory Disease <i>Conley</i>		Intraoperative Management Lab - b Clinical Obs - c Off - a	
13	4/16	Case Discussion: <i>Regional II</i> (Heindel)	The Autonomic Nervous System & Pharmacology <i>Maye</i>		Acute Renal Failure	Thoracic Anesthesia <i>D'Angelo</i>		Crisis Management Lab - a Clinical Obs - b Off - c	
14	4/23	Case Discussion: <i>Positioning</i> (Duell)	Cardiovascular Pharmacology <i>D'Angelo</i>		Systemic Inflammatory Response Syndrome, Sepsis, Septic Shock	Anesthesia for patients with CV Disease (NON CV Surgery) <i>Downey</i>		Crisis Management Lab - c Clinical Obs - a Off - b	
15	4/30	Case Discussion: <i>Obstetrical</i> <i>Anesthesia (Pre-</i> <i>eclampsia)</i> (Griffin)	Anesthesia Adjuncts : Antiemetics/NSAIDS <i>D'Angelo</i>		Multiple Organ Dysfunction Syndrome	Trauma Anesthesia <i>Downey</i>		Crisis Management Lab - b Clinical Obs - c Off - a	
16	5/7	Exam III	Final Exam		Liver Failure Case Study DKA Case Study	Anesthesia and Renal/Hepatic Disease <i>TBD</i>			
17	5/14	Oral Exam III			Course Evaluations, Final Exam	Final Exam			

Nurse Anesthesia

This full-time 28-month specialty prepares students to provide anesthesia services to a diverse diagnostic and surgical population. The curriculum is offered in a multidisciplinary framework and is front-loaded with the majority of the didactic instruction being completed during the first two semesters. Beginning the third semester, students begin their clinical education in Baltimore-Washington area hospitals and return to the University for classes one day a week. The curriculum includes content in physiology, pathophysiology, chemistry, physics and pharmacology. Graduates are eligible to sit for the national certification examination offered by the American Association of Nurse Anesthetists. Web-based courses may be available.

Program Director: Lou Heindel, DNP, CRNA, Assistant Professor
E-mail: NurseAnesthesia@son.umaryland.edu

Sample Plan of Full-time Study

Semester I – Fall (1)		Credits
NPHY 612	Advanced Physiology and Pathophysiology	3
NURS 613	Principles of Anesthesia Nursing I	3
NURS 616	Chemistry of Anesthesia Nursing	2
NURS 617	Technology and Physics of Anesthesia Nursing	3
NURS 623	Advanced Assessment of the Critically Ill	3
NURS 723	Clinical Pharmacology and Therapeutics	3
Semester II – Spring (1)		
NPHY 620	Pathophysiological Alterations in the Critically Ill	2
NURS 604	Pharmacology of Anesthesia Nursing	3
NURS 614	Principles of Anesthesia Nursing II	3
NURS 701	Science and Research for Advanced Practice Nursing	4
Semester III – Summer (1)		
NURS 637	Anesthesia Nursing Practicum I	3
NURS 654	Principles of Anesthesia Nursing III	3
Semester IV – Fall (2)		
NURS 657	Anesthesia Nursing Practicum II	5
NURS 615	Regional Anesthesia and Practicum	3
NURS 642	Professional Aspects of Anesthesia Nursing	1
Semester V – Spring (2)		
NURS 622	Systems and Populations in Health Care	3
NURS 672	Principles of Anesthesia Nursing IV	3
NURS 673	Anesthesia Nursing Practicum III	5
Semester VI – Summer (2)		
NRSG 670	Anesthesia Nursing Seminar I	2
NURS 674	Anesthesia Nursing Practicum IV	3
Semester VII – Fall (3)		
NURS 659	Systems in Health Care	3
NURS 675	Anesthesia Nursing Seminar II	4
NURS 676	Anesthesia Nursing Practicum V	5
Total Program Credits		72



UNIVERSITY OF MARYLAND

SCHOOL OF NURSING

Master Science Course Descriptions

NPHY 612 Advanced Physiology and Pathophysiology

3 credits

This course provides graduate level content of physiology and pathophysiology that is necessary for understanding the scientific basis of advanced practice nursing and more advanced clinical courses in a variety of settings. Structural and functional changes in cells, tissues, and organs that underlie selected diseases are discussed. The student will gain an understanding of the mechanisms underlying diseases and their clinical manifestations, thus providing a basis for clinical decisions related to diagnostic test and initiation of therapeutic regimens. Pathogenesis of disease will be related to principles of health promotion and disease prevention. The course contributes to the scientific basis for advanced practice nursing.

NPHY 620 Pathophysiological Alterations in the Critically Ill

2 credits

This course is designed to provide the student with an opportunity to gain an indepth knowledge of specific pathophysiologic processes often experienced by critically ill patients. Learning is reinforced during scheduled time in critical care areas where students analyze and evaluate patients demonstrating some of the pathophysiologic problems discussed during the didactic portion of the class. Regularly scheduled clinical seminar presentations done by the student permits the student to apply theoretical knowledge to specific situations. *Prerequisite or concurrent: NPHY 612, NURS 605, 623, 723*

NURS 604 Pharmacology of Anesthesia Nursing

3 credits

This course will provide a comprehensive understanding of the pharmacology of the inhalation anesthetics. The principles of uptake and distribution (pharmacokinetics) of inhalation anesthetics will be discussed along with factors that influence the rate of rise

of alveolar tension. The course will also cover the Pharmacokinetics and Pharmacodynamics of intravenous anesthesia drugs.

NURS 613 Principles of Anesthesia Nursing I

2 credits

This course provides introductory information pertinent to the clinical practice of anesthesia. Students will build on their previous clinical experience to develop advanced and essential information on providing pre-anesthesia, intra-anesthesia, and post-anesthesia patient care. Emphasis is on basic information in nurse anesthesia about the induction, maintenance, and emergence from anesthesia to include monitoring, patient positioning, and anesthesia record keeping.

NURS 614 Principles of Anesthesia Nursing II

3 credits

This course is designed to further explore and develop concepts taught in Principles of Anesthesia Nursing I with an emphasis on the anesthetic management of the pediatric, geriatric and obstetrical patient. The student will review the specific anesthetic needs, unique physiological requirements and specific safety issues for each specialty. Students will learn to modify their standard anesthesia techniques for health adult patients to address the safety issues and unique needs of these groups. *Prerequisites:* NURS 613

NURS 615 Regional Anesthesia

2 credits

This course is designed to provide the anesthesia student with knowledge of the anatomy, physiology, pharmacology and clinical aspects of the administration and management of regional anesthesia. The course will review neurophysiology and anatomy, pharmacology of local anesthetics, safety requirements and precautions and contra-indications to regional anesthesia as well as correct documentation of regional anesthesia administration and maintenance.

NURS 616 Chemistry and Physics of Anesthesia Nursing

1 credit

The first basic science in anesthesia course is designed to present a review of inorganic, organic and biochemistry as it applies to the practice of anesthesia. Students will build on their previous knowledge to develop an understanding of basic chemistry and physics principles that apply to the physiology and pharmacology related to anesthesia.

NURS 617 Physics for Anesthesia Nursing

1 credit

This course is a continuation of the study of chemistry and physics principles required for understanding the mechanisms and action of anesthetic practice. In this second semester course, emphasis is placed on the physics of anesthesia including molecular gas law, density gases, physical principles as they apply to anesthesia equipment and uptake and distribution of inhalational volatile anesthetics. *Prerequisites NUR 616*

NURS 622 Systems and Population in Health Care

3 credits

This core course provides an analysis of critical issues in health care delivery and population health. An overview of the design and structure of the U.S. health care system is presented including the policy, regulatory, financial, technological and social dynamics impacting health care organizations, health care professionals, and consumers of health care services. Building on knowledge of the health care system, the epidemiological bases for local and national health care trends are examined. Issues of cultural diversity, health disparities, and social justice in health care are analyzed. Strategies to enable advanced practice nurses to influence policy and resources allocation to improve health and reduce health disparities.

NURS 623 Advanced Assessment of the Critically Ill

3 credits

This first clinical course is designed to provide the student an opportunity to develop advanced assessment skills for use with critically ill adults. Students will build on previous knowledge and clinical experience to develop advanced skills in comprehensive assessment of the critically ill including invasive and non-invasive monitoring data, appropriate laboratory, and diagnostic procedures. Students will develop competence in identifying, describing, and recording normal and abnormal findings. Clinical experiences in critical care settings will provide opportunities for the application of a variety of assessment strategies, and the analysis of a comprehensive database using an organized approach to health assessment at any stage of acute illness. *Prerequisite or concurrent: NPHY 612, NURS 605.*

NURS 627 Anesthesia Nursing Practicum I

1 credit

This course is designed to expose the nurse anesthesia student to the clinical aspects of nurse anesthesia. Students will be paired with a Certified Registered Nurse Anesthetist or an anesthesiologist to provide preoperative, intra-operative and post-

operative anesthesia care at basic level. Students will perform tasks, evaluations and care for a patient undergoing anesthesia based on concepts learned in previous and ongoing lectures. Students will meet weekly with their peers and faculty to present and discuss their clinical experiences to expand their clinical acumen. *Prerequisites: NURS 613*

NURS 659 Organizational and Professional Dimensions of Advanced Nursing Practice

1-3 credits

This core course provides content related to organizational and professional challenges experienced by nurses in advanced practice whether in clinical care, education, management, or research. The course examines professional, social and organizational factors that influence work of advanced practice nurses. Roles that advanced practice nurses assume are examined with a particular emphasis on leadership development. Leadership strategies address fiscal management; interdisciplinary, inter-and-intra-organizational collaboration; professional and business ethics; and quality improvement. The course encompasses advocacy for the profession and for clients, management of innovation and change, as well as the strategies and skills needed for working in groups. The course is intended to be taken concurrently with clinical courses.

NURS 701 Science and Research for Advanced Nursing Practice

4 credits

Focuses on the acquisition, evaluation, and interpretation of information designed to link nursing theory and science as a foundation for advanced nursing practice. Working from a body of literature related to broad- and middle-range theoretical frameworks, students are actively involved in an ongoing program of research critique with emphasis on applications to and implications for nursing practice, consideration of the usefulness of selected theories and research for relevance to nursing practice, and the development of beginning skills to become actively involved in selected research activities.

NURS 623 Advanced Assessment of the Critically Ill

3 credits

This first clinical course is designed to provide the student an opportunity to develop advanced assessment skills for use with critically ill adults. Students will build on previous knowledge and clinical experience to develop advanced skills in comprehensive assessment of the critically ill including invasive and non-invasive monitoring data, appropriate laboratory, and diagnostic procedures. Students will develop competence in identifying, describing, and recording normal and abnormal findings. Clinical experiences in critical care settings will provide opportunities for the application of a variety of assessment strategies, and the analysis of a comprehensive

database using an organized approach to health assessment at any stage of acute illness. *Prerequisite or concurrent: NPHY 612, NURS 605.*

NURS 723 Clinical Application of Pharmacology and Therapeutics in Acute Care

3 credits

Students enhance their knowledge of commonly-prescribed pharmacologic agents used in the care of critically ill or oncology clients. Students critically analyze the role of pharmacotherapeutics in the care of the specific target population. Small group discussions and analyses of patient case scenarios ease the refinement of critical thinking and clinical decision-making skills of the advanced practice nurse.

University of Maryland School of Nursing
Nurse Anesthesia Program
COURSE SYLLABUS
Fall 2006

COURSE TITLE: NURS 642 Professional Aspects of Anesthesia Nursing

CREDIT: 1

FACULTY: Lou Heindel, DNP, CRNA
Matthew D'Angelo, CRNA, MS
Michelle Duell, CRNA, MS

COURSE DESCRIPTION:

This course is designed to explore various professional issues and national health policy that affects nurse anesthesia practice and the nurse anesthesia profession. Students will review the history and organization of the American Association of Nurse Anesthetists and the responsibilities of the nurse anesthesia councils. Emphasis will be placed on the ethics of nurse anesthesia and the legal challenges and responsibilities of a CRNA.

PRE-REQUISITES: None

COURSE OBJECTIVES:

Upon completion of this course, the graduate student will be able to:

- Summarize the history of nurse anesthesia.
- Compare and contrast the purpose, structure, roles and responsibilities of the councils of the nurse anesthesia profession.
- Summarize chemical dependency issues and corresponding ethical dilemmas specific to nurse anesthesia practice and CRNAs.
- Debate the advantages and disadvantages of practice settings available for nurse anesthetists.
- Summarize the legal responsibilities of nurse anesthesia practice.
- Summarize identified barriers to nurse anesthesia practice and what could be done in the profession to diminish these barriers.

TEXTBOOKS REQUIREMENTS:

To be announced

COURSE REQUIREMENTS:

1. Students are expected to be punctual for class and attend class weekly. Evidence of quality preparation is expected for class.
2. Active and knowledgeable class participation is expected for all students.
3. Students are to take all scheduled exams and to complete the course evaluation questionnaire.

EVALUATION AND GRADING:

Assignment of the course grade will be based on the following distribution:

Quiz 1 = 40% of course grade

Final Exam = 50% of course grade

Seminar Participation = 10% of course grade

Students **MUST** earn a B (3.0) or higher in this course to successfully progress to the spring semester.

GRADING CRITERIA:

A	90 – 100%	D	60 – 69
B	80 – 89	F	below 60
C	70 – 79		

POLICIES:

Academic Integrity and Conduct:

Students are referred to the University of Maryland School of Nursing Student Handbook for all policies regarding academic integrity and conduct. These include the University of Maryland System Policy on Faculty, Students and Institutional Rights and Responsibilities for Academic Integrity, the School of Nursing Statement of Student Rights and Responsibilities, and the University of Maryland Graduate Policies and Procedures for Academic Misconduct.

Weather Related Cancellations:

The policy in the University of Maryland School of Nursing Handbook regarding Weather related cancellations will be followed.

Taping Policy:

Audio/videotaping requires the permission of each instructor presenting material in the course.

Date	Topic	Reading	Lecturer	Assignments
9/18/06	Overview Professional Aspects of NA (3hrs)	N&Z p. 1-31	D'Angelo	Take Home Quiz given out.
9/23/06	Professional Aspects Seminar (8hrs)	Lecture Material	Faculty	
9/25/06	Study Day/Quiz Review (3hrs)	None	D'Angelo	Quiz Due
10/2/06	Final Exam (2hrs)		Faculty	

The Health Insurance Portability and Accountability Act (HIPAA) establishes privacy and protection for patient health information. It establishes a patient's rights including the right to access, inspect and obtain copies of protected health information, to amend the record, to review a list of disclosures and to request that uses and disclosures be restricted. Students are expected to complete an approved training program before beginning the clinical component of this course.

**SCHOOL OF NURSING
UNIVERSITY OF MARYLAND**

COURSE SYLLABUS

COURSE TITLE: NURS 659: Organizational and Professional Dimensions of Advanced Nursing Practice (Web-based)

COURSE CREDITS: 3

FACULTY: Thomasine D. Guberski, PhD, CRNP and Rachel Smith, PhD, RN

COURSE DESCRIPTION: This core course provides content related to organizational and professional challenges experienced by nurses in advanced practice whether in clinical care, education, management, or research. The course examines professional, social, and organizational factors that influence work of advanced practice nurses. Roles that advanced practice nurses assume are examined with a particular emphasis on leadership development. Leadership strategies address fiscal management; interdisciplinary, inter- and intra-organizational collaboration; professional and business ethics; and quality improvement. The course encompasses advocacy for the profession and for clients, management of innovation and change, as well as the strategies and skills needed for working in groups. The course is intended to be taken concurrently with clinical courses.

COURSE OBJECTIVES:

Upon completion of the course, the student will be able to:

1. Define and describe advanced nursing practice with respect to models of practice, professional roles and regulation and delineation of advanced practice within organizations.
2. Analyze the major processes in advanced practice nursing role development.
3. Develop appropriate strategies for problem solving and advocacy at the organizational level through the application of relevant theories and the examination of the governmental and nongovernmental processes by which professions are regulated and practice standards are established and maintained.
4. Provide leadership and management within and among health care organizations/agencies to promote high quality care and effective, efficient resource use through application of theories related to organizations, leadership, management, quality control, and budgeting.
5. Actively manage collaborative intra-organizational and inter-organizational relationships through effective use of skills in communication, negotiation, problem-solving, decision-making, and marketing.
6. Evaluate ethical decision-making from personal, professional and business perspectives, applying knowledge of ethical principles and legal constraints.

7. Formulate strategies that proactively address resistance to change, using conflict management techniques, power source theory, negotiation principles and team building skills.
8. Analyze the interrelatedness of motivational strategies, management theories, and leadership styles and their impact on the work environment.
9. Analyze the quality improvement process beginning with the formulation of performance standards and ending with outcomes management.
10. Describe system applications used to manage clinical data, information and knowledge within their organization.

TEXTBOOK:

Required: Hamric, A.B., Spross, J.A., Hanson, C.M (2005). Advanced Practice Nursing: An integrative approach. 3rd ed, Philadelphia: W.B. Saunders Co.

Module Schedule: Additional required readings will be posted with each module

Module 1	Definition of Advanced Nursing Practice	Hamric, Spross, Hanson (2005). Advanced Nursing Practice (Text) Chap 3, Chap 2	
Module 2:	Regulation of Advanced Practice	Text, Chap 22 CNS 419-435 PCNP 452-466 Acute Care 478-495 Blended 527-537 CNM 562-573 CRNA 590-599	
Module 3:	Social context of work and role	Text, Chap 4 & chap 2	
Module 4:	Foundations for ethical practice	Text, Chap 11	
Module 5:	Performance Improvement		
Module 6:	Promoting safety, quality, and outcomes measurement	Text, Chap 23 & 25	
Module 7:	Principles of fiscal planning budgeting	Text, Chap 20	
Module 8:	Managing collaborative intra/inter-organizational relationships	Text, Chap 24	
Module 9:	Managing innovation and change	Text, Chap 9	
Module 10	Conflict management, negotiation theory	Article Harvard Review	

Module 11:	Power-source theory, team building	Handouts	
Module 12:	Current challenges and next steps		
Module 13:	Clinical Information Systems	TBD	
Module 14:	Group Case presentations		Student Groups
Module 15:	Group Case presentations & course evaluations		

COURSE REQUIREMENTS:

Organizational Case Study and Group Presentation – Students will be divided into work groups to conduct a case study that is organizationally based. The instructors will meet with the group to help them identify and select which area of interest to explore and which body of literature best supports the analysis. The paper is due April 16, 2006. Five points/day will be deducted for late work. Presentations will be scheduled for the final two weeks.

Each group is expected to use the case method in approaching the issue/problem analysis. The structure or analytical process that is useful has five essential steps:

1. Problem Statement
2. Contributing Factors
3. Alternatives
4. Plan of Action
5. Evaluation Methodology

Problem Statement: The problem should be stated briefly and if necessary broken into important components, such as short-term or long-term factors that justify or motivate the problem under examination. These components are generally directed at convincing the reader that there is a problem.

Contributing Factors or Sub-problems: These are important organizational dynamics that help explain the main or central problem and require attention. They are developed in the case study as background required to lead to one or more reasonable alternatives that address the problem. There is not a fixed number of sub-problems, but they should be sufficient to provide a substantive background, but not so many that the project becomes a far-reaching organizational analysis.

Alternatives: In addressing any problem a number of alternatives should be considered. The case study should identify reasonable alternatives, some of which will be included in the plan of action and some that will be rejected. All action alternatives should relate to the problem statement. Clearly, major pros and cons should be developed for each potential alternative.

Plan of Action: The plan of action should be specific and action-oriented. It should include the steps that are to be taken, the time schedule for the steps, and a budget for any fiscal resources that may be necessary to achieve the plan goals.

Evaluation Methodology: This section includes elements of the necessary control system that will inform the organization as to the progress being made in successful implementation of the plan and in the resolution of the problem. There may be short-term measures and long-term measures that are required.

Key criteria in the evaluation of each case study shall consist of:

- a. Presentation well organized and creatively executed.
- b. Topic adequately researched and referenced.
- c. Organizational and leadership principles identified and practice applications stressed.
- d. Class participation encouraged and guided as appropriate.
- e. Submission of a written outline and references.

Ethical issue individual paper: Common ethical issues confronting nurses in advanced practice will be researched based on program of study and personal reference. Students are expected to present an analysis of the issues based on the literature, ethical principles, and legal and regulatory knowledge. A 5-7 page paper of the analysis is submitted. This assignment shall be due by midnight, March 2, 2007. Five points will be deducted daily for late work

Project on quality improvement and patient safety: Each student will identify an issue related to patient safety and design a quality improvement project to reduce and/or eliminate the risk to patient safety. The project will be no more than 2-3 pages in length, stating the Quality Patient Safety problem identified, the rationale for selection and steps planned to address it. This is due by midnight on March 26, 2006. Five points will be deducted daily for late work.

EVALUATION AND GRADING:

Case study – 35%

Ethical issue – 20%

Quality improvement project – 20%

Participation – 25% Each student is expected to participate in discussion activities in each module. Each individual is required to post a thoughtful response to the discussion question(s) and to questions/comments posed by other individuals participating in the discussion board. For specific posting and grading criteria, please see the Discussion Board Posting Criteria. Postings will be accepted for two weeks after the opening of the module only.

Supplemental References

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Martin, J. (2003) In praise of boundaries. *Harvard Business Review*. 81 (12): 41-45.

McAdams C, Montgomery K. (2003) Narrowing the possibilities: Using quality improvement tools to decrease competence assessment overload. *Journal for Nurses in Staff Development*. 19(1): 40-46.

Mick D, Ackerman M. (2000) Advanced practice nursing role delineation in trauma and critical care: Application of the Strong model of advanced practice. *Heart and Lung: Journal of Acute and Critical Care*. 29: 210-221.

Mikos C. (2004) Inside the nurse practice act. *Nursing Management*. 35(9): 20-22.

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Urden L. (2001) Outcome evaluation: An essential component for CNS practice. *Clinical Nurse Specialist*. 15: 260-268.

COURSE POLICIES:

ACADEMIC INTEGRITY AND CONDUCT:

Students are referred to the University of Maryland School of Nursing Student Handbook for all policies regarding academic integrity and conduct. These include the University of Maryland System Policy on Faculty, Student and Institutional Rights and Responsibilities for Academic Integrity, the School of Nursing Statement of Student Rights and Responsibilities, and the University of Maryland Graduate Policies and Procedures for Academic Misconduct.

AUDIO-VIDEO TAPING POLICY:

Audio/videotaping requires the permission of each instructor presenting material in this course.

WEATHER RELATED CANCELLATIONS:

The policy in the University of Maryland School of Nursing Student Handbook regarding weather related cancellations would be followed. The University plans can be obtained from 410-706-8622.

**UNIVERSITY OF MARYLAND
SCHOOL OF NURSING**

**COURSE SYLLABUS
Fall 2006**

COURSE TITLE : NURS 615 – Regional Anesthesia

CREDITS: 3 semester hours

FACULTY: Lou Heindel, DNP, CRNA *Course Coordinator*
Associate Member, Graduate School

Matthew D'Angelo, CRNA, MS
Clinical Instructor

TIME: 3 hour lecture

COURSE OVERVIEW:

This course is designed to provide the anesthesia student with knowledge of anatomy, physiology, pharmacology and clinical aspects of the administration and management of regional anesthesia. The course will review neurophysiology and anatomy, pharmacology of local anesthetics, safety requirements and precautions and contraindications to regional anesthesia as well as correct documentation of regional anesthesia administration and maintenance

PRE/COREQUISITES: NURS 613 and NURS 614

COURSE OBJECTIVES:

Upon completion of these lectures and studying the graduate student will be expected to:

1. Describe and identify landmarks for regional anesthesia.
2. Recall the pharmacology and safety profiles of local anesthetic agents and various adjunct medications used in regional anesthesia.
3. Discuss the anesthetic techniques for central and peripheral nerve blocks
4. Develop and present a care plan to include pre-operative assessment, anesthetic care, safety precautions, and specific pharmacological choices for a regional technique.
5. Develop a basic level anesthetic care plan addressing issues identified in the pre-operative assessment, particular surgical requirements and safety concerns.
6. Employ appropriate charting and data collection for a pre-anesthetic assessment.

7. Demonstrate knowledge of basic safety and anesthetic case management principles by preparing the anesthesia area with the standard equipment for a particular anesthetic case, including appropriate emergency equipment and medications.

TEXTBOOK REQUIREMENTS:

Hahn, M.B., McQuillan, P.M., Sheplock, G.J. (1996). Regional Anesthesia: An Atlas of Anatomy and Techniques. Mosby: St. Louis.

Morgan, Jr. G.E., Mikhail, M.S. (2001) Clinical Anesthesia, New York, McGraw-HillAppleton and Lange.

Miller, R. D. (2005) Anesthesia, New York: Churchill Livingston.

Stoelting & Miller (2000). Basics of Anesthesia, New York: Churchill-Livingstone

Nagelhout, J. & Zaglaniczny, K., (2004). Nurse Anesthesia 3rd Edition, Philadelphia: Saunders

COURSE REQUIREMENTS:

This course is structured as a lecture and demonstration skills labs format. Skill labs will be coordinated with lecture content the previous week. Attendance at all lectures is expected. Completion of the course evaluation questionnaire and faculty evaluation questionnaire are expected. Written examinations will be used in assigning a final course grade. There will be three examinations given.

EVALUATION AND GRADING:

The course grade will be based on the total points accumulated from all exams relative to the maximum points attainable. Assignment of letter grades will be based on the following percentages:

A = 90 - 100%

B = 80 - 89%

C = 70 - 79%

D = 60 - 69%

F = ≤ 59%

Exam 1 will equal 1/3 of the course grade

Exam 2 will equal 1/3 of the course grade

Exam 3 will equal 1/3 of the course grade

POLICIES:**Academic Integrity and Conduct:**

Students are referred to the University of Maryland School of Nursing Student Handbook for all policies regarding academic integrity and conduct. These Include the University of Maryland System Policy on Faculty, Students and Institutional Rights and Responsibilities for Academic Integrity, the School of Nursing Statement of Student

Rights and Responsibilities, and the University of Maryland Graduate Policies and Procedures for Academic Misconduct.

Weather Related Cancellations:

The policy in the University of Maryland School of Nursing Handbook regarding weather related cancellations will be followed.

Taping Policy:

Audio/videotaping requires permission of each instructor presenting material in this course.

CONTENT OUTLINE AND READINGS:

NURS 615 - REGIONAL ANESTHESIA

Time: Lecture 3 hours)

Week	Lecture Topic	Required Reading
1.	Local Anesthetics	
2.	Anatomy for Regional Anesthesia Spinal Anesthesia	
3.	Spinal Anesthesia Epidural Anesthesia	
4.	Epidural Anesthesia	
5.	EXAM I	
6.	Skills Lab-Regional	
7.	Upper Extremity Blocks	
8.	IV Regional Anesthesia	
9.	Lower Extremity Blocks	
10.	Skills Lab-Regional	
11.	EXAM II	
12.	Anesthesia Care Planning Anesthesia Room Set-up Anesthesia Patient Preparation	
13.	Ocular Blocks	

14.	Ultrasound guided blocks
15.	EXAM 3

Rev. 10/06

UNIVERSITY OF MARLAND
SCHOOL OF NURSING

COURSE SYLLABUS

Spring 2007

Course Title and Number:

NPHY 620: Pathophysiological Alterations in the Critically Ill

Credits:

2 credits

Faculty:

Karen Johnson RN, PhD

Office: 475D

Phone: 410-706-7708

Email: kjohnson@son.umaryland.edu

Kathryn Von Rueden RN, MS, FCCM

Office: 362

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Sandy McLeskey RN, PhD

Office: 762

Phone: 410-706-4337

Email: mcleskey@son.umaryland.edu

Time:

Tuesdays 9:00 am – 11:00 pm

Course Overview:

This course is designed to provide the student with an opportunity to gain an in-depth knowledge of specific pathophysiologic processes often experienced by critically ill patients. Learning is reinforced during scheduled time in critical care areas where the students analyze and evaluate patients demonstrating some of the pathophysiologic problems discussed during the didactic portion of the class. Regularly scheduled clinical seminar presentations done by the student permits the student to apply theoretical knowledge to specific situations.

Pre/Corequisites:

NPHY 612, NURS 605, NURS 623, NURS 723

Course Objectives:

Upon completion of this course, the student will be able to:

1. Identify specific alterations in the physiological processes in critically ill patients.
2. Analyze the etiology, pathogenesis, signs, symptoms, and sequelae of physiologic alterations commonly seen in critically ill patients.
3. Compile a database for a critically ill patient based on a specific pathophysiologic process.
4. Present an analysis of significant findings for a patient with a pathophysiologic process discussed in class according to the "Guidelines for Case Study Presentation".

Textbook Requirements:

Required:

Selected readings from journals.

Porth, CM. (2005). Pathophysiology: Concepts of Altered Health States (7th ed). Philadelphia: Lippincott Williams & Wilkens.

Recommended:

McCance K & Heuther S. (2006). The Biologic Basis for Diseases in Adults and Children (5th ed). St Louis: CV Mosby.

Guyton AC, & Hall JE. (2006). Textbook of Medical Physiology (11th ed), Philadelphia: WB Saunders.

Nelson D & Cox M (2005). Lehninger's Principles of Biochemistry (4th ed). New York: Worth Publishers.

Course Requirements:

1. Prepare for class by reading required literature.
2. Active participation in class discussion.
3. Active participation in preparation of case studies.
4. Demonstrate knowledge of content discussed in class on written quizinations scheduled and presentation of case studies.
5. Utilize appropriate sources for presentation of clinical cases.
6. Apply theoretical knowledge and clinical correlation of didactic content to case studies.
7. Present a *detailed* pathophysiological analysis of case study in a logical manner according to "Criteria for Evaluation of Case Study Presentations".

Evaluation and Grading:

The students' ability to apply theoretical knowledge will be evaluated through the presentation of a case study and written quizinations. Evaluation of the learning of didactic content will be accomplished by two written multiple-choice quizinations. Students are expected to evaluate the course by completion of a course evaluation form at the end of the course.

Criteria for Final Grade:

Case study presentation	35%
Midterm Quiz	25%
Final Quiz	25%
Class Participation	15%

Policies:

Academic Integrity and Conduct:

Students are referred to the University of Maryland School of Nursing Student Handbook for all policies regarding academic integrity and conduct. These include the University of Maryland System Policy on Faculty, Students, and Institutional Rights and Responsibilities for Academic Integrity, The School of Nursing Statement of Student Rights and Responsibilities, and the University of Maryland Graduate Policies and Procedures for Academic Misconduct.

Weather Related Cancellations:

The policy in the University of Maryland School of Nursing Handbook regarding weather related cancellations will be followed. In the event of inclement weather conditions, the UMB President or his designee will make a decision regarding the status of UMB. Once a decision has been made, up-to-date information can be accessed by dialing the UMB information number **410-706-8622**. Although television and radio stations are notified regarding school closings, please confirm announcements by calling the number above.

Registered Students and Guests in the SON

Only registered students and official guests are allowed in the School of Nursing classrooms and laboratory settings. Minors, who are attended by SON students or official guests, are permitted in the School of Nursing when they are in designated common areas, but are not permitted in classroom or laboratory settings at anytime. Minors, who are not attended by SON students or official guests, are not permitted in the School of Nursing facilities or outreach facilities.

Audiotaping Policy

Audiotaping requires the permission of each instructor presenting material in this course.

Class Homepage

There is a NPHY 620 class folder on the School of Nursing "S" drive. Messages from course faculty to students are in the folder in Microsoft Word format. This is an additional way for faculty to communicate with students. Please check this folder for information, class notes, etc *prior to class*.

Classroom Policies:

1. Students are expected to attend all scheduled classes and to be on time.
2. Place beepers and cell phones on vibrate.
3. Should a student miss a scheduled class, it is the student's responsibility to obtain handouts, lecture materials, and information from announcements.
4. Students are strongly encouraged to read required readings BEFORE class.
5. If a student has questions about specific lecture content, please discuss these with the faculty who taught the class. Students may email questions. Faculty are not available to answer emails on weekends.
6. Course faculty recommend the following strategies for successful course completion:
 - a. Attend class.
 - b. Form study groups with other students. Talk and quiz each other.
 - c. Talk aloud to explain pathophysiologic processes to yourself or to others.
 - d. Draw pictures of your understanding of pathophysiologic processes for yourself or others.
 - e. Audiotape lectures. Listen to the tape as you review your class notes and notes from the required readings.

Quizzes:

1. Two multiple-choice quizzes will be given.
2. Students are expected to take the quiz on the scheduled date/time.
3. Students with documented test-taking special needs should discuss these with the course coordinator at least *one week prior* to the first scheduled quiz so that accommodations can be made.
4. Students are responsible for bringing their own #2 pencils.
5. Students who are late will not be given additional time to complete the quiz.
6. Additional paper ("scrap paper") cannot be used at any time during the quiz. Students may write on the quiz booklet.
7. Prior to distribution of test materials, all backpacks and notebooks must be zipped up, put away. *Please turn off all cell phones and pagers.*
8. Students are reminded that the Scantron card is the "official" answer sheet. It is the student's responsibility to ensure this card accurately reflects the answer choice intended.
9. Faculty cannot answer specific quiz questions until all students have completed the quiz.

10. If a student is unable to take the quiz at the scheduled date/time, contact the course coordinator PRIOR to the quiz by email. You should provide the following information: your name and reason for absence. You will be contacted about how/when the make-up quiz will be offered.
11. Quiz grades can not be posted until all students have taken the quiz.
12. Quiz grades will be posted in the NPHY 620 folder in the "S" drive on/by Friday following the quiz as long as all students have taken the quiz. Please do not contact faculty to see when or if grades are done.
13. Students who have a question/concern over a quiz question may submit a feedback form (available on the S drive) to the course coordinator within two weeks of the quiz results posting. A panel of two faculty will review all forms and make a recommendation. If the recommendation is to allow more than one answer to a specific quiz question, all students will be notified of the change, grades will be adjusted accordingly, and revised grades will be posted in the S drive.
14. Questions about individual quiz grades must be addressed with the course coordinator within two weeks after grades are posted. Please email or call the course coordinator to schedule an appointment.
15. Students who wish to review their Scantron card may schedule an appointment. Scantron cards and the quiz key will be available for student review for two weeks following the date quiz grades are posted. Individual test booklets are not available after the quiz is completed.

Class Participation

1. Homework: Each week download the "Required Reading Discussion Points" word document from the S drive. Read the required readings and answer the questions. Turn in a copy of your completed homework at the beginning of class. Homework will not be accepted during or after class. Credit will not be given for partial or incomplete answers. You must turn in TEN of these over the course of the semester. (*Beginning February 13*)
2. Case study questions: Each week download the "Case Study Answers" word document from the S drive. Review the material. Think of a question you would like to ask the case study presenters and turn that question in at the beginning of class. You must turn in TEN of these over the course of the semester.

Course Schedule:

	Topic	Required Readings
1/23	Course Overview; Group assignment & planning; "How give a presentation"	<ul style="list-style-type: none"> •Vollman KM. (2005). Enhancing presentation skills for the advanced practice nurse: Strategies for success. <u>AACN Clin Issues</u> 16(1), 67-77. •Bowen JL. (2006). Educational strategies to promote clinical diagnostic reasoning. <u>New Engl J Med</u> 355(21), 2217-2225.
1/30	Cell Metabolism I: Glucose Metabolism (Renn)	<ul style="list-style-type: none"> •Porth p.217-221 •Guyton or Nelson
2/6	Cell Metabolism II: Lipid & Protein Metabolism (Renn)	<ul style="list-style-type: none"> •Porth p.217-221 •Guyton or Nelson
2/13	Anemia of Critical Illness (Johnson)	<ul style="list-style-type: none"> •Scharte M & Fink MP. (2003). Red blood cell physiology in critical illness. <u>Crit Care Med</u> 31 (12 suppl), S651 – S657. •Ho J, Sibbald WJ, Chin-Yee, IH. (2003). Effects of storage in efficacy of red cell transfusion: When is it not safe? <u>Crit Care Med</u> 31 (12 suppl), S687 – S697. •Pieracci FM & Barie PS. (2006). Diagnosis and Management of iron-related anemias in critical illness. <u>Crit Care Med</u> 34(7), 1898-1905.
2/13	Immunosuppression (McLeskey)	<ul style="list-style-type: none"> •Gea-Banacloche JC, et al. (2004). Sepsis associated with immunosuppressive medications: An evidenced based review. <u>Crit Care Med</u> 32, S578-S590. •Pizzo PA (1999). Fever in immunocompromised patients. <u>New Engl J Med</u> 341, 893-900.
2/20	DKA case study AML case study	<ul style="list-style-type: none"> •Eledrisi MS et al. (2006). Overview of the diagnosis and management of diabetic ketoacidosis. <u>Am J Med Sci</u> 331(5), 243-251. •Estey E & Dohner H. (2006). Acute myeloid leukemia. <u>Lancet</u> 368, 1894-1907.

2/27	Coagulopathies in Critical Illness (Von Rueden)	<ul style="list-style-type: none"> • Napolitano, L, et al.. (2006) Heparin-induced thrombocytopenia in the critical care setting: Diagnosis and management. <u>Crit Care Med</u>. 34(12): 2898-2911. • Lapointe LA & Von Rueden KT. (2002). Coagulopathies in trauma patients. <u>AACN Clin Issues</u> 13 (2), 192 – 203. • Levi M, et al. (2004). New treatment strategies for disseminated intravascular coagulation based on current understanding of the pathophysiology. <u>Annals of Med</u> 36, 41-49.
3/6	Hypothalamic Pituitary Axis in Critical Illness (Johnson)	<ul style="list-style-type: none"> • Johnson KL, Renn C. (2006). Hypothalamic-pituitary axis in critical illness. <u>AACN Clinical Issues</u> 17(1), 33 – 43. • Robinson LE, Van Soeren MH. (2004). Insulin resistance and hyperglycemia in critical illness. <u>AACN Clin Issues</u> 15(1), 45 – 62. • Turina M, et al. (2006). Diabetes and hyperglycemia: Strict glycemic control. <u>Crit Care Med</u> 34(9 suppl), S291- S300. • <i>Assignment: select and read a tight glycemic control study conducted on a patient population of your choice.</i>
3/13	Midterm Quiz Asthma Case Study	<ul style="list-style-type: none"> • Eder W, et al. (2006). The asthma epidemic. <u>New Engl J Med</u> 355 (21), 2226 – 35. • Strunk RC, et al. (2006). Omalizumab for asthma. <u>New Engl J Med</u> 354(25), 2628 – 95.
3/20	Spring Break	
3/27	Acute Lung Injury & Acute Respiratory Distress Syndrome (Johnson)	<ul style="list-style-type: none"> • Taylor MM. (2005). ARDS Diagnosis and Management. <u>Dimens in Crit Care Nurs</u> 24 (5), 197 – 207. • Plantadosi CA & Schwartz DA. (2004). The acute respiratory distress syndrome. <u>Ann Intern Med</u> 141, 460 – 470. • Toy P, et al (2005). Transfusion related acute lung injury: Definition and review. <u>Crit Care Med</u> 33 (4), 721 – 726.

4/3	Spinal cord injury (Von Rueden)	<ul style="list-style-type: none"> •Delp SM & Ruth-Sahd LA. (2005). The disease process of spinal cord injuries. <u>Dimen Crit Care Nurse</u> 24(2), 57-63. •Hurlbert RJ. (2006). Strategies of medical intervention in the management of acute spinal cord injury. <u>Spine</u> 31(11 Suppl), S16-S21. •Williams DT, Harding K. (2003). Healing responses of skin and muscle in critical illness. <u>Crit Care Med</u> 31(8 Supple), S547 – S557.
4/10	Reperfusion Injury (Von Rueden)	<ul style="list-style-type: none"> •Eltzschig H, Collard C. (2004) Vascular ischemia and reperfusion injury. <u>Brit Med Bulletin</u> 70: 71-86 •Reffellmann T, Kloner RA. (2002). The “No-reflow” phenomenon: Basic science and clinical correlates. <u>Heart</u> 87(2), 162-168. •Verma S, et al. (2002). Fundamentals of reperfusion injury for the clinical cardiologist. <u>Circulation</u> 105, 2332-2336.
4/17	Acute Renal Failure (Johnson)	<ul style="list-style-type: none"> •Meschi M et al. (2006). Facts and fallacies concerning the prevention of contrast medium-induced nephropathy. <u>Crit Care Med</u> 34(8), 2060-2068). •Schrier RW & Wang W. (2004). Acute renal failure & sepsis. <u>N Engl J Med</u> 351, 159 0 169. •Molitoris BA, et al. (2002). Endothelial injury and dysfunction in ischemic acute renal failure. <u>Crit Care Med</u> 30 (Supple 5), S 235 – S240. •Debavaeye YA & Van den Berghe GH. (2004). Is there still a place for dopamine in the modern intensive care unit? <u>Anesth Analg</u> 98, 461 – 468.

4/24	Systemic Inflammatory Response Syndrome, Sepsis, Septic Shock (Johnson)	<ul style="list-style-type: none"> •Bridges EJ, Dukes S. (2005). Cardiovascular aspects of septic shock: Pathophysiology, monitoring, treatment. <u>Crit Care Nurs</u> 25(2), 14 – 40. •Hotchkiss RS & Karl IE. (2003). The pathophysiology and treatment of sepsis. <u>New Engl J Med</u> 348, 138 – 150. •Dellinger RP, et al. (2004). Surviving sepsis campaign guidelines for management of severe sepsis and septic shock. <u>Crit Care Med</u> 32, 858 – 873. •Kleinpell R. (2003). Advances in treating patients with severe sepsis. <u>Crit Care Nurse</u> 23(3), 16-29. •Russell, JA. (2006). Management of sepsis. <u>New Engl J Med</u> 355(16), 1699-1713. •Eichacker PQ et al. (2006). Surviving sepsis: Practice guidelines, marketing campaigns, and Eli Lilly. <u>New Engl J Med</u> 355 (16), 1640-1642.
5/1	Multiple Organ Dysfunction Syndrome (Johnson)	<ul style="list-style-type: none"> •Doig CJ et al. (2004). Study of clinical course of organ dysfunction in intensive care. <u>Crit Care Med</u> 32(2), 384 – 390. •Kuiper JW et al. (2005). Mechanical ventilation and acute renal failure. <u>Crit Care Med</u> 33(6), 1408 – 1415. •Ely EW, et al. (2003). Advances in understanding of clinical manifestations and treatment of severe sepsis: An update for critical care nurses. <u>Am J Crit Care</u> 12, 120 – 135.
5/8	Liver Case Study Obesity & Aging Case Study	<ul style="list-style-type: none"> •Navarro VJ & Senior JR. (2006). Drug related hepatotoxicity. <u>New Engl J Med</u> 354, 731-739. •Limdi JK & Hyde GM. (2003). Evaluation of abnormal liver function tests. <u>Postgrad Med J</u>, 79, 307-312. •Marik PE. (2006). Management of the critically ill geriatric patient. <u>Crit Care Med</u> 34 (9 suppl), S176-S182. •Davidson JE, et al. (2003). Critical care of the morbidly obese. <u>Crit Care Nurs Q</u> 26(2), 105-116.
5/15	Course Evaluations Final Quiz	

**SCHOOL OF NURSING
UNIVERSITY OF MARYLAND**

COURSE SYLLABUS

COURSE TITLE: NURS 622: Systems and Populations in Health Care Delivery Spring 2007

COURSE CREDITS: 3

FACULTY:

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COURSE DESCRIPTION: This core course provides an analysis of critical issues in health care and population health. An overview of the design and structure of the U.S. health care system is presented including the policy, regulatory, financial, technological and social dynamics impacting health care organizations, health care professionals and consumers of health care services. Building on knowledge of the health care system, the epidemiological basis for local and national health care trends are examined. Issues of cultural diversity, health disparities, and social justice in health care are analyzed. Strategies to enable advanced practice nurses to influence policy and resource allocation to improve health are explored. The course should be taken early in the program of study.

COURSE OBJECTIVES:

Upon completion of the course, the student will be able to:

1. Analyze local, state, and national socioeconomic and health policy issues/ trends and articulate how they impact the health care delivery system.
2. Analyze the structure and organization of the U.S. health care delivery system.
3. Differentiate and delineate legislative and regulatory processes that influence public policy to promote and preserve healthy populations and communities.
4. Analyze the economic and ethical implications of health planning, organization,

payment systems and outcomes in order to make high quality, cost-effective decisions about the use of resources.

5. Examine the impact of health care information systems and patient care technology on the practice of advanced practice nurses.

6. Examine the determinants of health, using epidemiological, social, and environmental data, to assess trends and establish priorities to improve the health status of populations.

7. Explore the impact of human social and cultural diversity on variations in health and health disparities.

8. Assess factors influencing the health of communities using appropriate epidemiological principles and develop health promotion and disease prevention programs for populations.

TEXTBOOK:

Required Lee, Philip and Estes, Carroll.(2003) The Nation's Health. (7th ed.) Boston: Jones and Bartlett.

Recommended Shi, Leiyu and Singh, Douglas. (2004). Delivering Health Care in America: A Systems Approach. (3rd ed.) Boston: Jones and Bartlett.

COURSE REQUIREMENTS:

Paper – The 10 page paper requires students to select an area of interest from Healthy People 2010 and design a program to reduce morbidity and mortality for a city, county or state that addresses the key content areas of the course – policy, organization, financing, quality, epidemiology, diversity, disparities and social issues.

622 Course Paper

Select a topic of interest from the 28 Healthy People 2010 focus areas:

- Access to Quality Health Care Services
- Arthritis, Osteoporosis and Chronic Back Conditions
- Cancer
- Chronic Kidney Disease
- Diabetes
- Disability and Secondary Conditions
- Educational and Community-Based Programs
- Environmental Health
- Family Planning
- Food Safety
- Health Communication
- Heart Disease and Stroke
- HIV

- Immunization and Infectious Diseases
- Injury and Violence Prevention
- Maternal, Infant and Child Health
- Medical Product Safety
- Mental Health and Mental Disorders
- Nutrition and Overweight
- Occupational Safety and Health
- Oral Health
- Physical Activity and Fitness
- Public Health Infrastructure
- Respiratory Diseases
- Sexually Transmitted Diseases
- Substance Abuse
- Tobacco Use
- Vision and Hearing

Design a program or strategy to reduce morbidity and mortality for that focus area for Baltimore, a Maryland County or the state of Maryland that addresses the key content areas of the course. Structure your paper as follows:

Abstract: Summary of the paper

Discuss the epidemiological basis for the program you are designing. Address cultural diversity, health disparities and social justice in your program plan.

(50 points)

Identify how you would organize, finance, regulate and assure quality in the program.

Using the policy process and political strategies, indicate how you would work with existing public policies or advocate for new policies, to assure the success of the program.

(50 points)

Examinations – There will be midterm and final essay examinations based on class content and required readings.

EVALUATION AND GRADING:

Paper – 40%

Midterm Examination – 30%

Final Examination – 30%

POLICIES:

ACADEMIC INTEGRITY AND CONDUCT: Students are referred to the University of Maryland School of Nursing Student handbook for all policies regarding academic integrity and conduct. These include the University of Maryland System Policy on Faculty, Students and Institutional Rights and Responsibilities for Academic Integrity; the School of Nursing Statement

on Student Rights and Responsibilities; and the University of Maryland Graduate Policies and Procedures for Student Academic Misconduct.

WEATHER-RELATED CANCELLATIONS: The policy in the University of Maryland School of Nursing Student handbook regarding weather-related cancellations will be followed.

University of Maryland School of Nursing

COURSE SYLLABUS

Fall 2006

Thursdays, 11:30-1:30

COURSE TITLE: NURS 616 Chemistry for Anesthesia Nursing

CREDITS: 2

FACULTY:

Sandra W. McLeskey, RN, PhD
Professor
Room 762, SNB
Phone: 410-706-4337
Email: mcleskey@son.umaryland.edu

Susan G Dorsey, RN, PhD: *Guest lecturer*
Assistant Professor
Room, SNB 772
Phone: 410-706-7250
E-mail: sdorsey@son.umaryland.edu

Chris Ward, PhD : *Course Coordinator*
Assistant Professor
Room 752, SNB
Phone: 410-706-3618
E-mail: ward@son.umaryland.edu

COURSE DESCRIPTION:

This first basic science in anesthesia course is designed to present a review of inorganic and organic chemistry followed by the principles of biochemistry as it applies to the practice of anesthesia. Students will build on their previous knowledge to develop an understanding of basic chemistry principles that apply to the physiology and pharmacology related to anesthesia.

PRE-REQUISITES: None

COURSE OBJECTIVES:

By the end of the course, the student will be able to:

- Review and refine knowledge of chemical structure, bonding, electronegativity, pH, solubility, osmosis and diffusion.
- Explore the metabolism and function of nucleic acids, carbohydrates, lipids and proteins.
- Explore the structure-function relationships in enzymes, membranes, muscle proteins, and signaling molecules.
- Explain genetic diseases in terms of defective structure/function relationships in proteins encoded by mutated genes.

TEXTBOOK REQUIREMENTS:

Odian, G. and Blei, I. *Theory and Problems of General, Organic, and Biological Chemistry. (Shaum's Outline Series)*, 1994, McGraw-Hill.

Smith, C. Marks, A.D. & Lieberman, M., Marks' *Basic Medical Biochemistry*, 2nd ed 2005, Lippincott Williams & Wilkins

RESERVE LIST:

Denniston, K.J., Topping, J. J., and Caret, R.L. *General, Organic, and Biochemistry*, 4th ed. 2004, McGraw-Hill.

Devlin, T.M. *Textbook of Biochemistry with Clinical Correlations*, 5th ed. 2002, Wiley-Liss.

Alberts, et al. *Molecular Biology of the Cell*, 4th edition, Garland, 2002.

COURSE REQUIREMENTS:

Punctual attendance is expected at all scheduled class sessions.

Students are expected to ask questions and contribute to discussions.

There will be two exams, a homework assignment and a writing requirement.

EVALUATION AND GRADING:

Assignment of the course grade will be based on the following distribution:

Participation – 20%

Class attendance 5%

Class discussion 5%

Homework (Pass/Fail) 5%

Group presentations 5%

Written assignment – 20%

Answers to specific questions will be graded for pertinence to the question, succinctness, and completeness.

Exams – 60%

Exam 1 = 30%

Exam 2 = 30%

GRADING SCALE

A 90 – 100%

B 80 – 89

C 70 – 79

D 60 – 69

F below 60

Policies:

Academic Integrity and Conduct:

Students are referred to the University of Maryland School of Nursing Student Handbook for all policies regarding academic integrity and conduct. These include the University of Maryland System Policy on Faculty, Students and Institutional Rights and Responsibilities for Academic Integrity, the School of Nursing Statement of Student Rights and Responsibilities, and the University of Maryland Graduate Policies and Procedures for Academic Misconduct.

Weather Related Cancellations:

The policy in the University of Maryland School of Nursing Handbook regarding Weather related cancellations will be followed. Students should not rely on radio or TV announcements but should call the campus emergency information telephone number (410-706-8622) or check the UMB web page (www.umb.edu) and click on the "Campus Alerts" link at the lower left hand corner of the screen).

Taping Policy:

Audio/videotaping requires the permission of each instructor presenting material in this course. All instructors for this course have granted permission for taping. You do not need to ask individual instructors for permission during the course.

Class Schedule

Date	Subject	Reading Assignment	Instructor
8/31/05	Elements and isotopes, chemical bonding, compounds, solutions, pH, inorganic reactions	Shaum's Chap 2,3,4, 6,7,8,9, 10	McLeskey
9/7/05	Organic structures & reactions	Shaum's Chap 11, 12, 13, 14, 15, 16, 17	McLeskey
9/14/05	Proteins	Chapter 6 & 7	Ward
9/21/05	Structure-function relationships of proteins	Chapter 6 & 7	Ward
9/28/05	Nucleic acids, DNA Replication	Chapter 12 & 13	Ward
10/5/05	RNA transcription and processing	Chapter 14	McLeskey
10/12/05	Protein synthesis Homework distributed	Chapter 15	McLeskey
10/19/05	Exam 1		
10/26/05	Enzymes	Chapter 8 & 9	Dorsey
11/2/05	Biological Membranes & Transport Homework due; Writing assignment distributed	Chapter 10	Ward
11/9/05	Special Lipids	Shaums, p361-365 Chapters 33 (606-613), 34 (622-628, 631-640), 35	McLeskey
11/16/05	Biosignaling Writing assignment due	Chapter 11	Dorsey
11/23/05	No class / Thanksgiving Holiday		
11/30/05	Neuromuscular Aspects	TBA	Ward
12/7/05	Group presentations		
12/14/05	Exam 2		

**UNIVERSITY OF MARYLAND
SCHOOL OF NURSING**

**COURSE SYLLABUS
Fall 2006 (FINAL)**

Course Title and Number: NPHY 612 Advanced Physiology and Pathophysiology

Credits: Three

Faculty:

Karen Johnson PhD, RN, CCRN Course Coordinator	kjohnson@son.umaryland.edu	410-706-7708
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Chris W Ward PhD	ward@son.umaryland.edu	410-706-3618
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Sandra McLeskey PhD, RN	mcleskey@son.umaryland.edu	410-706-4337
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Cynthia Renn PhD, RN	renn@son.umaryland.edu	410-706-5736
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Artur Caridha PhD, RN Shady Grove	acaridha@yahoo.com	
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Teaching Assistant:
Amy Heish

All course faculty are available for office hours by appointment. Please email individual faculty to schedule an appointment.

Time: Fall Semester, Mondays 11:00 am – 1:50 p.m.

Course Overview:

This course provides graduate level content of physiology and pathophysiology that is necessary for understanding the scientific basis of advanced practice nursing and for more advanced clinical courses in a variety of settings. Structural and functional changes in cells, tissues, and organs that underlie selected diseases are discussed. The student will gain an understanding of the mechanisms underlying diseases and their clinical manifestations, thus providing a basis for clinical decisions related to diagnostic tests and initiation of therapeutic regimens. Pathogenesis of disease will be related to principles of health promotion and disease prevention. The course contributes to the scientific basis for advanced practice nursing.

Pre/corequisites: None.

Course Objectives:

Upon completion of this course, the student will be able to:

1. Compare selected principles of physiology and contrast how they vary across systems in pathologic states.
2. Analyze the structural and functional changes in cells, tissues, and organs that underlie selected diseases.
3. Correlate these structural and functional changes with clinical manifestations of selected diseases.
4. Apply pathophysiologic mechanisms of disease to justify clinical decisions related to the physiologic basis for selected diagnostic tests and initiation of therapeutic regimens.
5. Relate principles of health promotion and disease prevention to the pathogenesis of selected diseases.

Textbook Requirements:**Required:**

Porth, C.M. (2005). *Pathophysiology: Concepts of altered health status* (7th ed.). Philadelphia: Lippincott Williams & Wilkins.

Recommended:

Guyton, A.C., & Hall, J.E. (2006). *Textbook of medical physiology* (11th ed.). Philadelphia: W.B. Saunders.

Course Requirements:

1. Preparation for lectures by reading required readings. Weekly readings will also include selections from current literature.
2. Attendance and participation in class discussions.
3. Application of theoretical knowledge and clinical correlation of didactic content to case studies presented in class.
4. Demonstrate knowledge of content discussed in lectures on three written examinations scheduled during the semester.
5. Complete course evaluation.

Evaluation and Grading:

Evaluation of the learning of didactic content will be accomplished by three written multiple-choice examinations. Students are expected to evaluate the course via ongoing discussion and completion of a course evaluation form at the end of the course.

Criteria for Final Grade:

Exam I	33.3%
Exam II	33.3%
Exam III	33.3%

Policies:

Academic integrity and conduct

Students are referred to the University of Maryland School of Nursing Student Handbook for all policies regarding academic integrity and conduct. These include the University of Maryland System Policy on Faculty, Students, and Institutional Rights and Responsibilities for Academic Integrity, The School of Nursing Statement of Student Rights and Responsibilities, and the University of Maryland Graduate Policies and Procedures for Academic Misconduct.

Weather Related Cancellations

The policy in the University of Maryland School of Nursing Handbook regarding weather related cancellations will be followed. In the event of inclement weather conditions, the UMB President or his designee will make a decision regarding the status of UMB. Once a decision has been made, up-to-date information can be accessed by dialing the UMB information number 410-706-8622. Although television and radio stations are notified regarding school closings, please confirm announcements by calling the number above.

Registered Students and Guests in the SON

Only registered students and official guests are allowed in the School of Nursing classrooms and laboratory settings. Minors, who are attended by SON students or official guests, are permitted in the School of Nursing when they are in designated common areas, but are not permitted in classroom or laboratory settings at anytime. Minors, who are not attended by SON students or official guests, are not permitted in the School of Nursing facilities or outreach facilities.

Audiotaping Policy

Audiotaping requires the permission of each instructor presenting material in this course.

Class Homepage

There is a NPHY 612 class folder on the School of Nursing "S" drive. Messages from course faculty to students are in the folder in Microsoft Word format. This is an additional way for faculty to communicate with students. Please check this folder for information, class notes, etc *prior to class*.

Classroom Policies:

1. Students are expected to attend all scheduled classes and to be on time.
2. Place beepers and cell phones on vibrate.
3. Should a student miss a scheduled class, it is the student's responsibility to obtain handouts, lecture materials, and information from announcements.
4. Students are strongly encouraged to read required readings BEFORE class.

5. If a student has questions about specific lecture content, please discuss these with the faculty who taught the class. Students may email questions. Faculty are not available to answer emails on weekends.
6. Course faculty recommend the following strategies for successful course completion:
 - a. Attend class. Examples/questions are given during class that may be helpful during the examinations.
 - b. Form study groups with other students. Talk and quiz each other.
 - c. Talk aloud to explain pathophysiologic processes to yourself or to others.
 - d. Draw pictures of your understanding of pathophysiologic processes for yourself or others.
 - e. Audiotape lectures. Listen to the tape as you review your class notes.

Examinations:

1. Four multiple-choice exams will be given.
2. Students are expected to take the exams on the scheduled date/time.
3. Students with documented test-taking special needs should discuss these with the course coordinator at least *one week prior* to the first scheduled exam so that accommodations can be made.
4. Students are responsible for bringing their own #2 pencils.
5. Exams last 100 minutes. Students who are late will not be given additional time to complete the exam.
6. No examination or any other written material is to be removed from the room at any time.
7. Additional paper ("scrap paper") cannot be used at any time during the exam. Students may write on the text booklet.
8. Prior to distribution of test materials, all backpacks and notebooks must be zipped up, put away. *Please turn off all cell phones and pagers.*
9. Students are reminded that the Scantron card is the "official" answer sheet. It is the student's responsibility to ensure this card accurately reflects the answer choice intended.
10. Faculty cannot answer specific exam questions until all students have completed the exam.
11. If a student is unable to take the exam at the scheduled date/time, contact the course coordinator PRIOR to the exam by email or voicemail. Please speak slowly and clearly for voicemails. You should provide the following information: your name (spell it), phone number, and reason for absence. You will be contacted about how/when the make-up exam will be offered.
12. Exam grades can not be posted until all students have taken the exam.
13. Exam grades will be posted in the PHY 612 folder in the "S" drive by Friday following the exam as long as all students have taken the exam. Please do not contact faculty to see when or if grades are done.
14. Students who have a question/concern over an exam question may submit a feedback form (available on the S drive) to the teaching assistant within

two weeks of the exam results posting. A panel of two faculty will review all forms and make a recommendation. If the recommendation is to allow more than one answer to a specific exam question, all students will be notified of the change, grades will be adjusted accordingly, and revised grades will be posted in the S drive.

15. Questions about individual exam grades must be addressed with the course coordinator within two weeks after grades are posted. Please email or call the course coordinator to schedule an appointment.
16. Students who wish to review their Scantron card may email the teaching assistant to schedule an appointment. Scantron cards and the exam key will be available for student review for two weeks following the date exam grades are posted. Individual test booklets are not available after the exam is completed.

Content Outline:

Date	Title/ Lecturer	Physiology	Pathogenesis, pathophysiologic mechanisms, physiologic basis of selected diagnostic tests, and clinical manifestations of:	Required Readings (Porth)
8/28	Cell Biology (Ward)	Cell structure/function Cellular metabolism Membrane transport Membrane potentials Cellular communication & signal transduction	Cell adaptation (atrophy, hypertrophy, hyperplasia, metaplasia, dysplasia) Cellular injury (reversible, hypoxia, necrosis, apoptosis) Cell death	Chapters 4 & 5
9/11	Cancer (McLeskey)	Cell cycle Cell differentiation & proliferation Characteristics of benign & malignant neoplasms; nomenclature of cancer Genetics and cancer (oncogenes, tumor suppressor genes, DNA repair genes)	Carcinogenesis Leukemias Lymphomas Diagnosis of cancer (screening, biopsy, staging/grading) Tumor biology	103-106, 114-115, 155-174, 321-323, 325-336
9/18	Hematologic (Johnson)	Structure/function of hematologic system Cellular components Hematopoiesis Hemostasis	Anemias Coagulopathies Hypercoagulable states Platelet defects (thrombocytopenia, ITP, HIT) Coagulation disorders (acquired vs. hereditary, hemophilias, Von Willebrand's disease)	Chapter 14, Chapter 15, 299-305; 308-312
9/25	Immunity, Inflammation (Ward)	The immune response Inflammation & healing	Acute & chronic inflammation Hypersensitivity disorders Autoimmune diseases HIV/AIDS	341-347; 350-358; 365-385; 387-401; 411-419; 421-425; 427-440
10/2	EXAM I (100 min) Lecture!!	Structure/function of central and peripheral nervous systems ; Control of motor function		1113-1123; 1132-1148
10/9	Neurologic; Neuro-muscular disorders; Acute, chronic pain	Structure/function of neurologic system; neurophysiology of pain	Disorders of motor function (Parkinson's MS, spasticity) Brain injury (hypoxia, cerebral edema, hematomas, acute brain attack); seizures, Alzheimers Acute and chronic pain	1160-1176; 1193-1198; 1210-1211; 1214-1216; 1227-1231; 1235-1242; 1243-1247; 1257-1260; 1282-1284
	Skeletal (independent module)	Characteristics of skeletal tissue; hormonal control of bone formation and metabolism	Paget's Disease Osteoporosis	1357-1363; 1406-1410; 1412-1413

Date	Title/ Lecturer	Physiology	Pathogenesis, pathophysiologic mechanisms, physiologic basis of selected diagnostic tests, and clinical manifestations of:	Required Readings (Porth)
10/16	Integrative Body Functions (Johnson)	Autonomic nervous system, HPA axis, physiologic stress response, temperature regulation	Stress related diseases Effects of stress on acute/chronic illness Hypo/hyperthermia Fever	1149-1157; 187-199; 201-214
10/23	Endocrine (McLeskey)	Mechanisms of hormonal regulation Structure/function of endocrine glands Metabolic syndrome Thyroid hormone (synthesis, release, peripheral utilization, functions, regulation) Female reproductive physiology	Diabetes mellitus (type I, II) Complications of diabetes (DKA, HHNC) Pregnancy and diabetes Insulin resistance Hypo/hyperthyroid disease & complications (thyroid storm) Hypo/hyperaldosteronism	951-959; 970-977; 987-999; 1006-1007; 1055-1058
10/30	Respiratory (Johnson)	Structure/function of respiratory system; neurochemical control of respiration, mechanics of breathing, gas transport	Dyspnea, orthopnea, abnormal breathing patterns, cough, hemoptysis, cyanosis Restrictive diseases: Asthma, infection, hyperresponsiveness, obstruction, hyperinflation, wheezing, pneumonia (community, nosocomial) Obstructive diseases: COPD, Emphysema, Chronic Bronchitis Vascular diseases: Pulmonary embolism	Chapter 29, 665-669, 689-704, 712-713
11/6	Exam II			
11/13	Systemic Circulation (Johnson)	Structure/physiology of systemic circulation Fluid movement through capillary membrane (edema) Cholesterol metabolism Vessel contraction/relaxation Blood flow (pressure, resistance, neural control) Structure/physiology of lymphatics system	Hyperlipidemia Atherosclerosis Hypertension (& complications) Peripheral vascular disease (DVT, Buerger's Disease, Raynaud's)	449-455; 462-472; 475-485; 489-490; 496-498; 505-522; 468-473
11/20	The Heart (Johnson)	Anatomy of heart & circulation Conduction system Innervation Excitation/contraction Phases of cardiac cycle Factors affecting CO (preload, afterload, contractility, HR)	Coronary atherosclerosis Chronic ischemic heart disease Acute coronary syndromes Angina Normal EKG & EKG changes Heart failure Valve disease Cardiomyopathies	455-462; 539-550; 555-557; 561-566; 603-611

	Title/ Lecturer	Physiology	Pathogenesis, pathophysiologic mechanisms, physiologic basis of selected diagnostic tests, and clinical manifestations of:	Required Readings (Porth)
11/27	Renal I: Alterations of fluid-electrolyte and acid-base balance (Renn)	Structure/function of renal & urologic systems Renal blood flow Regulation of fluid/electrolytes (Na, H ₂ O, K) Regulation of acid-base balance	Formation of edema Electrolyte disorders Acid Base disorders	727-740; 745-752; 752-758; 759-773; 789-807;
12/4	Renal II: Disorders of renal function & urine elimination (Johnson)	Control of urine elimination	Altered bladder function (urinary obstruction/stasis, neurogenic bladder disorders, urinary incontinence) Urinary tract obstruction (mechanisms, manifestations, nephrolithiasis) Disease of glomerular function (glomerulonephritis, diabetic glomerulosclerosis, hypertensive glomerular disease) Renal failure (acute, chronic)	812-817, 822-825, 826- 827 ;833- 844, 851- 863
12/11	Course Evaluations GI (McLeskey)	Structure/function of GI system Accessory organs of digestion	Anorexia/nausea/vomiting, diarrhea/constipation Peptic ulcer disease (PUD) Inflammatory bowel disease Diverticulitis/diverticulosis Appendicitis Cholecystitis Pancreatitis Hepatitis, cirrhosis, liver cancer Colorectal cancer GI Bleeding Hiatal hernia	871-884; 885-887, 893-895, 896-900, 902-908, 917-924, 927-932, 934- 935;941- 945;
12/18	Exam III (120 min)	NOT cumulative		

University of Maryland School of Nursing
COURSE SYLLABUS
Fall 2006

Course Title: NURS 676-Anesthesia Nursing Practicum VI

Credit: 5

Faculty: Lou Heindel, DNP, CRNA
Matthew D'Angelo, CRNA, MS
Michelle Duell, CRNA, MS

Time: Practicum-TBD
Clinical Conference-TBD

Course Description:

This course is the final clinical practicum of the program. It is designed to provide the student anesthetist a final opportunity to strengthen clinical skills and incorporate current anesthesia practices into their practice. Students will practice under the direct supervision of a Certified Registered Nurse Anesthetist or anesthesiologist at an independent level. Students will assess patients, develop care plans and provide anesthesia for all types of cases with minimal input from the supervising anesthesia provider. The clinical conference is designed to allow the SRNA to meet with their peers and faculty to discuss recent cases, problems and solutions. Students in their final practicum are expected to assist lower level students to find solutions to their clinical problems.

Prerequisites: NURS 627- Anesthesiology Nursing Practicum I
NURS 637-Anesthesiology Nursing Practicum II
NURS 657-Anesthesiology nursing Practicum III
NURS 673-Anesthesiology Nursing Practicum IV
NURS 674 - Anesthesiology Nursing Practicum V

Course Objectives:

Upon completion of this course, the graduate student will be able to:

- Demonstrate knowledge of accepted anesthesia clinical practice by setting up the anesthesia area with all items and medications appropriate for any level and type of anesthetic.
- Develop a comprehensive anesthesia care plan that justifies care for all types of patients undergoing all types of anesthesia.
- Demonstrate knowledge of anesthesia drugs for more advanced cases by appropriately choosing and administering medications and techniques.
- Provide anesthesia for all types of cases with minimal requirement for supervision or intervention.
- Demonstrate an advanced knowledge of pathophysiology by assessing complex patients and appropriately assigning the ASA physical status classification.
- Promote safe and ethical conduct in the peri-operative environment.

Textbook requirements:

Course requirements:

Punctual attendance is expected at all scheduled class and clinical sessions. Appropriate dress is required at all clinical sessions. Please turn off or silence cell phones and pagers. Students are responsible for course syllabi and outlines and are expected to complete course and reading assignments as scheduled. Active and knowledgeable class participation is expected of all students.

Evaluation and Grading:

Assignment of the course grade will be based on the following distribution:

Pass/Fail

Policies on Academic Integrity and Conduct:

Students are referred to the University of Maryland School of Nursing Student Handbook for all policies regarding academic integrity and conduct. These include the University of Maryland System policy on Faculty and Students' Institutional Rights and Responsibilities for Academic Integrity, the School of Nursing Statement of Student Rights and Responsibilities and the University of Maryland Graduate Policies and Procedures for Academic Misconduct.

Weather-related Cancellations:

The policy in the University of Maryland School of Nursing Handbook regarding weather-related cancellations will be followed.

Taping policy:

Audio/videotaping requires the permission of each instructor presenting material in the course.

The Health Insurance Portability and Accountability Act (HIPAA) establishes privacy and protection for patient health information. It establishes a patient's rights including the right to access, inspect and obtain copies of protected health information, to amend the record, to review a list of disclosures and to request that uses and disclosures be restricted. Students are expected to complete an approved training program before beginning the clinical component of this course.

University of Maryland School of Nursing
Nurse Anesthesia Program
COURSE SYLLABUS
Fall 2006

COURSE TITLE: NURS 642 Professional Aspects of Anesthesia Nursing

CREDIT: 1

FACULTY: Lou Heindel, DNP, CRNA
Matthew D'Angelo, CRNA, MS
Michelle Duell, CRNA, MS

COURSE DESCRIPTION:

This course is designed to explore various professional issues and national health policy that affects nurse anesthesia practice and the nurse anesthesia profession. Students will review the history and organization of the American Association of Nurse Anesthetists and the responsibilities of the nurse anesthesia councils. Emphasis will be placed on the ethics of nurse anesthesia and the legal challenges and responsibilities of a CRNA.

PRE-REQUISITES: None

COURSE OBJECTIVES:

Upon completion of this course, the graduate student will be able to:

- Summarize the history of nurse anesthesia.
- Compare and contrast the purpose, structure, roles and responsibilities of the councils of the nurse anesthesia profession.
- Summarize chemical dependency issues and corresponding ethical dilemmas specific to nurse anesthesia practice and CRNAs.
- Debate the advantages and disadvantages of practice settings available for nurse anesthetists.
- Summarize the legal responsibilities of nurse anesthesia practice.
- Summarize identified barriers to nurse anesthesia practice and what could be done in the profession to diminish these barriers.

TEXTBOOKS REQUIREMENTS:

To be announced

COURSE REQUIREMENTS:

1. Students are expected to be punctual for class and attend class weekly. Evidence of quality preparation is expected for class.
2. Active and knowledgeable class participation is expected for all students.
3. Students are to take all scheduled exams and to complete the course evaluation questionnaire.

EVALUATION AND GRADING:

Assignment of the course grade will be based on the following distribution:

Quiz 1 = 40% of course grade

Final Exam = 50% of course grade

Seminar Participation = 10% of course grade

Students **MUST** earn a B (3.0) or higher in this course to successfully progress to the spring semester.

GRADING CRITERIA:

A	90 – 100%	D	60 – 69
B	80 – 89	F	below 60
C	70 – 79		

POLICIES:

Academic Integrity and Conduct:

Students are referred to the University of Maryland School of Nursing Student Handbook for all policies regarding academic integrity and conduct. These include the University of Maryland System Policy on Faculty, Students and Institutional Rights and Responsibilities for Academic Integrity, the School of Nursing Statement of Student Rights and Responsibilities, and the University of Maryland Graduate Policies and Procedures for Academic Misconduct.

Weather Related Cancellations:

The policy in the University of Maryland School of Nursing Handbook regarding Weather related cancellations will be followed.

Taping Policy:

Audio/videotaping requires the permission of each instructor presenting material in the course.

Date	Topic	Reading	Lecturer	Assignments
9/18/06	Overview Professional Aspects of NA (3hrs)	N&Z p. 1-31	D'Angelo	Take Home Quiz given out.
9/23/06	Professional Aspects Seminar (8hrs)	Lecture Material	Faculty	
9/25/06	Study Day/Quiz Review (3hrs)	None	D'Angelo	Quiz Due
10/2/06	Final Exam (2hrs)		Faculty	

The Health Insurance Portability and Accountability Act (HIPAA) establishes privacy and protection for patient health information. It establishes a patient's rights including the right to access, inspect and obtain copies of protected health information, to amend the record, to review a list of disclosures and to request that uses and disclosures be restricted. Students are expected to complete an approved training program before beginning the clinical component of this course.

**UNIVERSITY OF MARYLAND
SCHOOL OF NURSING
COURSE SYLLABUS
PHASE I
FALL 2006**

COURSE TITLE AND NUMBER:

NURS 613

Principles of Anesthesia Nursing I

CREDITS:

3 semester hours

2 Didactic

1 Lab

FACULTY:

Lou Heindel, DNP, CRNA

Matthew D'Angelo, CRNA, MS

Michelle Duell, CRNA, MS

TIME: Fall Semester I

COURSE OVERVIEW:

This course provides introductory information pertinent to the clinical practice of anesthesia. Students will build on their previous critical care clinical experience to develop advanced and essential information on providing pre-anesthesia, intra-anesthesia, and post-anesthesia patient care. Emphasis is on basic information in nurse anesthesia about the induction, maintenance, and emergence from anesthesia to include monitoring, patient positioning, and anesthesia record keeping. Additionally, students will build on previously learned skills and knowledge to develop advanced skills in obtaining and completing a comprehensive pre-operative health history and physical. This will allow the student to develop competence in identifying, describing and communicating normal and abnormal assessment findings in written and oral format and using this information to develop an anesthesia plan of care.

PRE/COREQUISITES: None

COURSE OBJECTIVES:

Upon completion of this course the student will be expected to:

1. Analyze the essential variables that must be incorporated in preanesthetic assessment to permit for the development of an appropriate anesthetic plan of care.
2. Prepare to safely manage an airway based upon thorough analysis of a patient's anatomy and guidelines described in the anesthesia literature.

3. Express the rationale for proper surgical positioning techniques and monitoring modalities used to avoid iatrogenic injury.
4. Explain anesthesia standards of care to promote patient safety and reduce anesthetic complications.
5. Demonstrate writing skills necessary for accurate documentation of anesthesia care provided for surgical patients.
6. Assess preoperative medical history and perform a physical assessment to accurately assign American Society of Anesthesiologists Physical Status Classification.
7. Translate a wide variety of advanced assessment strategies used in forming a clinical database for the patient.

TEXTBOOK REQUIREMENTS:

See reading list.

COURSE REQUIREMENTS:

Students are expected to read required and/or recommended readings for each class. Attendance at all lectures is expected. Completion of the course evaluation questionnaire and faculty evaluation questionnaire are expected. Written examinations will be used in assigning a final course grade. There will be three examinations given. Lab time is required.

EVALUATION AND GRADING:

The course grade will be based on the total points accumulated from all exams relative to the maximum points attainable.

Exam 1 will equal 33% of the course grade

Exam 2 will equal 33% of the course grade

Exam 3 will equal 33% of the course grade

Students **MUST** earn a B (3.0) or higher in this course to successfully progress to the spring semester.

POLICIES:

Academic Integrity and Conduct:

Students are referred to the University of Maryland School of Nursing Student Handbook for all policies regarding academic integrity and conduct. These include the University of Maryland System Policy on Faculty, Students and Institutional Rights and Responsibilities for Academic Integrity, the School of Nursing Statement of Student Rights and Responsibilities, and the University of Maryland Graduate Policies and Procedures for Academic Misconduct.

Weather Related Cancellations:

The policy in the University of Maryland School of Nursing Handbook regarding Weather related cancellations will be followed.

TapingPolicy:

Audio/videotaping requires permission of each instructor presenting material in this course.

**University of Maryland School of Nursing
Nurse Anesthesia Program
COURSE SYLLABUS
PHASE I**

Course Title: NURS 617 Technology and Physics of Anesthesia Nursing

Credit: 3

Faculty:

Lou Heindel, DNP, CRNA

Matthew D'Angelo, CRNA, MS

Time: FALL 2006

Course Description:

This course focuses on physics principles required for understanding the mechanisms and actions of anesthetic agents, anesthesia equipment and metabolic theories as they apply to anesthesia practice. Emphasis is placed on the physics of anesthesia including molecular gas laws, density of gases, physics principles as they apply to anesthesia equipment. Students will build on their previous clinical monitoring experience and expand it to understanding the role of monitoring in vigilance and patient safety during anesthesia. Emphasis is placed on how to check anesthesia equipment to reveal problems before harm comes to the anesthetized patient.

Prerequisites: None

Course Objectives:

Upon completion of this course, the graduate student will be able to:

- Solve problems related to the physical properties of gases and the administration of general anesthetics.
- Explain several individual gas laws including Henry's Law, Boyle's Law and LaPlace's Law, and give examples of each as it relates to anesthesia practice.
- Compare and contrast types of gas flow related to the administration of inhalational anesthetics and human physiology.
- Calculate the change in pressure, volume or temperature in gases when one of those parameters is altered.
- Explain potential electrical hazards for patients in the surgical environment and how the patient is protected from these hazards.
- Demonstrate the role of technology and anesthesia monitoring in anesthesia patient safety.
- Explain potential mishaps associated with anesthesia machines and breathing equipment.

- Perform an FDA anesthesia machine check.
- Analyze airway pressures, volumes, and flows as they relate to the anesthesia gas machine.
- Discuss the physiological and bioengineering principles of pulse oximetry.
- Explain the theory on which the depth of anesthesia is measured using neurophysiologic monitoring.

Textbooks Requirements:

Miller, R. D(2004). Anesthesia 6th ed. New York: Churchill Livingstone.

Morgan, G.E., Mikhail, M.S., Murry, M.J. (2006). Clinical Anesthesiology (4rd Ed.). Norwalk, Connecticut: Appleton & Lange.

Nagelhout, J. & Zaglaniczny, K. (2004). Nurse Anesthesia (3rd Ed.) Philadelphia: Saunders.

Course Requirements:

Punctual attendance is expected at all scheduled class and clinical sessions. Appropriate dress is required at all clinical sessions. Students are responsible for course syllabi and outlines and are expected to complete reading assignments as scheduled. Active and knowledgeable class participation is expected of all students.

Evaluation and Grading:

Assignment of the course grade will be based on the following distribution:

- a. Exam 1 = 33%
- b. Exam 2 = 33%
- c. Exam 3 = 33%

Grading Criteria:

- A 90-100%
- B 80-89%
- C 70-79%
- D 60-69%
- F Below 60%

Students **MUST** earn a B (3.0) or higher in this course to successfully progress to the spring semester.

Policies-Academic Integrity and Conduct:

Students are referred to the University of Maryland School of Nursing Student Handbook for all policies regarding academic integrity and conduct. These include the University of Maryland System Policy on Faculty and Students Institutional Rights and Responsibilities for Academic Integrity, the School of Nursing Statement of Student Rights and Responsibilities and the University of Maryland Graduate Policies and Procedures for Academic Misconduct.

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Taping Policy:

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The Health Insurance Portability and Accountability Act (HIPAA) establishes privacy and protection for patient health information. It establishes a patient's rights including the right to access, inspect and obtain copies of protected health information, to amend the record, to review a list of disclosures and to request that uses and disclosures be restricted. Students are expected to complete an approved training program before beginning the clinical component of this course.

UNIVERSITY OF MARYLAND SCHOOL OF NURSING

COURSE SYLLABUS

Fall 2006

COURSE TITLE: NURS 623 Advanced Assessment of the Critically Ill Adult

CREDITS: 3 credits

FACULTY: Kathryn T. Von Rueden, RN, MS, FCCM
Assistant Professor
Room 362, Office 410-706-5253
vonrueden@son.umaryland.edu

Nancy Munro RN, MN, CCRN, ACNP
Clinical Instructor
jonamunr@hotmail.com

TIME: One 2-hour lecture per week; one 3-hour clinical per week

COURSE OVERVIEW:

This first clinical course is designed to provide the student an opportunity to develop advanced assessment skills for use with critically ill adults. Students will build on previous knowledge and clinical experience to develop advanced skills in comprehensive assessment of the critically ill including invasive monitoring data, appropriate laboratory and diagnostic procedures. Students will develop competence in identifying, describing, analyzing, and recording normal and abnormal findings. Clinical experiences in critical care settings will provide opportunities for the application of a variety of assessment strategies, and the analysis of a comprehensive database using an organized approach to health assessment at any stage of acute illness.

PRE OR CO-REQUISITE: NPHY 600/612, NURS 605

COURSE OBJECTIVES:

By the completion of the course, the student will be able to:

1. Assess the health status of critically ill adults
 - a. Obtain data from patients, families, team members, records and other sources necessary for a complete database.
 - b. Perform a physical examination
 - c. Analyze and interpret data from invasive/noninvasive monitoring, laboratory, and diagnostic tests.
 - d. Collect patient data on an on-going basis, prioritized according to the patient's immediate conditions and needs.
2. Analyze data to determine medical diagnoses.
3. Develop a prioritized and comprehensive problem list
4. Record a history and physical examination
5. Report verbally and in writing accurate, concise, organized, and pertinent information about patient assessment.

REQUIRED ACTIVITY:

Visit the web site www.pacep.org

This site, "Pulmonary artery education project" is a joint educational venture by the American Association of Critical Care Nurses and the Society of Critical Care Medicine. The site was created so that all users of hemodynamic data derived from pulmonary artery catheters would receive the proper education and training to properly care for patients with these catheters. Complete Level I and II Lessons. Print out the "Official Certificate of Completion". *Bring your certificate to class on 9/7!*

COURSE REQUIREMENTS:

1. Attend lectures and read assigned material prior to the lecture.
2. Spend three hours per week in the clinical setting or simulation laboratory in the School of Nursing.
3. Participate in clinical conferences.
4. Complete the Cardiopulmonary Parameters Chart
5. Complete two clinical analysis papers.
6. Complete three quizzes.
7. Complete a final course evaluation.

EVALUATION AND GRADING:

- | | | |
|----|----------------------------------|-----|
| 1. | Quiz I | 20% |
| 2. | Quiz II | 20% |
| 3. | Quiz III | 20% |
| 4. | Cardiopulmonary Parameters Chart | 10% |
| 3. | Clinical Case Analysis I | 15% |
| 4. | Clinical Case Analysis II | 15% |

ATTIRE FOR CLINICAL EXPERIENCES:

A lab coat, with or without scrubs, is required for clinical. You must also wear your University of Maryland student ID badge.

TEXTBOOK REQUIREMENTS: none**REQUIRED READINGS**

Assigned weekly. All required and recommended readings from journals are available from Faculty/Students/E-Resources/E-Journal on the Health Science Library website. Required textbook readings are available on reserve in the library at the circulation desk. Recommended textbook readings are available in the library (they are not on reserve).

DESCRIPTION OF COURSE REQUIREMENTS:

1. Clinical Caseload

The purpose of the clinical component of the course is to allow the student the opportunity to apply concepts learned in class to the patient in the clinical or laboratory setting. Each student will select a variety of patients throughout the semester and complete the weekly clinical guide. Students will use multiple assessment strategies including chart review, extraction of data from the computer system, and history and physical examination data. It is advantageous to follow some patients for several weeks to analyze changing trends. It is also advantageous to assess multiple patients so that assessment and analysis skills can become refined throughout the course of the semester. An important part of the clinical experience will be clinical conferences, during which case study discussion will enhance synthesis and analysis of content. Faculty will provide guidance in finding opportunities to meet students' learning needs.

Clinical experiences will be held at the R Adams Cowley Shock Trauma Center and other critical care units at the University of Maryland Medical Center. Although a faculty member will be with students during clinical, students are expected to be self-directed in identifying their learning needs.

Clinical laboratory experiences will be held in the Clinical Simulation laboratory on the 3rd floor of the School of Nursing building, room 340 or 350.

2. Cardiopulmonary Parameters Chart

The purpose of the Cardiopulmonary Parameters Chart is to enable the student to integrate assessment parameters related to pulmonary gas exchange, oxygenation, ventilation, hemodynamic monitoring, oxygen delivery and consumption into analysis of the physiologic status of their critically ill patients. ***Cardiopulmonary Parameter Chart is due OCTOBER 5 before class begins.*** Charts received after this time will be deducted 5 points per day. Please use this template for your chart. Set up page in landscape format, use Times New Roman size 12 font or Arial size 11 font

Parameter	Formula	Definition	Causes of Increase	Causes of Decrease

3. Clinical Case Analyses

The purpose of the clinical case analyses is to organize assessment data in a scientific manner, and to synthesize and interpret the information.

Clinical Case Analysis I: Students will be given pertinent patient data related to the concepts of oxygenation including pulmonary gas exchange, ventilation, hemodynamic monitoring, oxygen delivery and oxygen consumption. ***Case Analysis 1 is due OCTOBER 26 before class begins. Papers received after this time will be deducted 5 points per day.***

Clinical Case Analysis II: Students will choose a patient case study from clinical site or from their place of employment and analyze data related to 2 of 4 systems: neurological, hematological, renal/fluid and electrolytes, and gastrointestinal. ***Case Analysis 2 is due DECEMBER 7 before class begins. Papers received after this time will be deducted 5 points per day.***

For more specific information, please see and “Evaluation Criteria for Clinical Case Analysis”. The case analysis shall be no more than **10 pages** using 12 font size, double space text, and single space tables.

4. **Quizzes**

There will be three multiple-choice quizzes. One will occur approximately one third of the way through the semester, which will test content from the first 4 lectures. The second quiz will test content from the middle of the course, while the final quiz will test content from the last third of the semester. While there will be some mastery level content on the exams, the majority of the exams will focus on application, analysis, and synthesis of the material covered in class and clinical conference.

5. **Clinical Conference**

Students are expected to participate in weekly clinical conferences. Students will have the opportunity to present and discuss their patients and didactic class content during the clinical conference. Weekly Clinical Guidelines will be used to structure the discussion.

Evaluation Criteria for Case Analysis 1

CRITERIA	Points Earned
<p>SECTION I. <i>Size 12 Font, single space is permitted</i></p> <p>Page 1:</p> <ul style="list-style-type: none"> • Document the history of present illness • Bullet list of pertinent past medical or surgical history (if applicable) • List current PO and IV medications, dose, frequency, etc. <p>Faculty comments:</p>	5
<p>SECTION II. <i>Double space and use 12 font.</i></p> <p>Page 2-9 (<i>you are not required to fill 8 pages, this is the page limit!</i>)</p> <p>You will be given a case scenario to analyze. For each parameter, you will be given the parameter, the normal range, and the parameter measured at two points in time.</p> <ul style="list-style-type: none"> • As an appendix, list the parameters, and the values at the 2 time points. You may single space this table. • In paragraph form, <i>using concise, scientific writing style</i>, analyze and discuss the causes for any deviations from normal in the patient's values, and the reason for changes in the parameter over time. (apply knowledge from the Cardiopulmonary Parameters Chart) What are the possible causes of these changes? <i>The analysis of changes over the points in time is the central focus of the paper.</i> Make sure you analyze, not describe. Organize your analysis in the following order: <ul style="list-style-type: none"> • Section I: Pulmonary Gas Exchange • Section II: Oxygen transport • Section III: Oxygen consumption <p>Be sure to address medications, pathophysiology, and the patient's clinical condition as possible causes of changes. If data are missing/not available, what additional assessment information would this have given you in drawing your conclusions? <i>If a parameter was not measured, what would you have expected?</i></p> <p>Double space and use 12 font.</p> <p>Faculty comments:</p>	/15
<p>SECTION III.</p> <p>Page 10: Reference List</p> <p>Integrate literature to support your analyses and differentials. Do not just repeat normal values; provide explanations of the physiologic rationale why the values are changed. Use required and recommended readings or other literature. References and citations should be made using APA format.</p> <p>Faculty comments:</p>	/5
<p>TOTAL SCORE</p> <p>Faculty comments:</p>	/25

Evaluation Criteria for Case Analysis 2

- During your clinical time, choose a patient case analysis and collect pertinent information.
- The focus of the analysis is on 2 systems (Neuro, GI, Hematology, Renal), at least one should have altered function, but both do not need to be abnormal!

CRITERIA	Points Earned
<p>SECTION I. <i>Size 12 Font, single space is permitted</i></p> <p>Page 1:</p> <ul style="list-style-type: none"> • Document the history of present illness • Bullet list of pertinent past medical or surgical history (if applicable) • List current PO and IV medications, dose, frequency, etc. <p>Faculty comments:</p>	<p><u>5</u></p>
<p>SECTION II. <i>Double space and use 12 font.</i></p> <p>Page 2-9 (<i>you are not required to fill 8 pages, this is the page limit!</i>)</p> <p>As an appendix, focusing on 2 systems, create a table for each system that lists the relative assessment parameters, the formula if applicable, normal values / range, and your patient's values at Time 1 (which should be on or close to hospital admission) and Time 2 (any time of your choosing). You may single space this table.</p> <ul style="list-style-type: none"> • In paragraph form, <i>using concise, scientific writing style</i>, analyze and discuss the causes for any deviations from normal in the patient's values, and the reason for changes in the parameter over time. What are the possible causes of these changes? <i>The analysis of changes over the points in time is the central focus of the paper.</i> Make sure you analyze, not describe. • If the system has normal values and apparent normal function, describe potential or anticipated alterations in function that may occur in the future. <p>Be sure to address medications, pathophysiology, and the patient's clinical condition as possible causes of changes. If data are missing/not available, what additional assessment information would this have given you in drawing your conclusions? <i>If a parameter was not measured, what would you have expected?</i></p> <p>Double space and use 12 font.</p> <p>Faculty comments:</p>	<p>/15</p>
<p>SECTION III.</p> <p>Page 10: Reference List</p> <p>Integrate literature to support your analyses and differentials. Do not just repeat normal values; provide explanations of the physiologic rationale why the values are changed. Use required and recommended readings or other literature. References and citations should be made using APA format.</p> <p>Faculty comments:</p>	<p>/5</p>
<p>TOTAL SCORE</p>	<p>/25</p>

Faculty comments:

NURS 623 COURSE SCHEDULE

Classroom: Thursdays 0900 -1050

Clinical: Group I: Thursdays 1100 - 1400

Group II: Thursdays 1400 – 1700

Group III: Fridays 0900 - 1200

Date	Topic	Speaker	Clinical
8/31/06	Course Overview	Course Faculty	Complete PACEP Course online; complete Cerner/Powerchart tutorial
9/7/06	Assessment of Pulmonary Gas Exchange	Dr. Johnson	As scheduled in Simulation Lab
9/14/06	Hemodynamic Monitoring: Invasive & non/minimally invasive	Kathryn VonRueden, RN, MS, FCCM	As scheduled in Simulation Lab
9/22/06	Assessment of Oxygen Delivery and Oxygen Utilization	Kathryn VonRueden, RN, MS, FCCM	As scheduled in Simulation Lab
9/28/06	Assessment of Mechanically Ventilated Patient; Mechanical Ventilation, Loops, Curves and Waves	Nancy Munro, RN, MS, ACNP, CCRN Matt D'Angelo RN, MS, CRNA	As scheduled in Clinical Site
10/5/06	Quiz I Cardiopulmonary Chart Due Markers of Myocardial Injury	Kim Reck, CRNP	ECG Interpretation Dr. Morton Clinical in SON 2:30-5pm All Clin Groups
10/12/06	ECG Interpretation	Dr. Morton	ECG Interpretation Dr. Morton Clinical in SON 2:30-5pm All Clin Groups
10/19/06	CXR Interpretation	Stuart Jacobs MD	Clinicals - CXR practice; Rm 245 SON, as scheduled
10/26/06	Neurological Assessment Case Analysis #1 Due	Karen McQuillan MS, RN, CCRN	As scheduled in Clinical Site
11/2/06	Quiz II GI Assessment	Elizabeth Stonesifer, ACNP	As scheduled in Clinical Site
11/9/05	Hematologic Assessment	Kenneth Rempher PhD, RN, MBA, APRN-BC	As scheduled in Clinical Site
11/16/06	Renal Assessment Assessment of Fluid & Electrolytes	Nancy Munro, RN, MS, CCRN, ACNP	As scheduled in Clinical Site
11/23/06	Thanksgiving Recess		
11/30/06	Nutrition Assessment <i>Note TIME CHANGE: 0830-1030</i>	Val Sabol ACNP	As scheduled in Clinical Site
12/7/06	Pain Assessment Anxiety, agitation, delirium Assessment Case Analysis #2 Due Course Evaluations	Cindy Renn PhD, ACNP Thomas Grissom, Col, USAF, MC	As scheduled in Clinical Site
12/14/05	Quiz III		No clinical

RECOMMENDED READINGS & RESOURCES

(Books with an asterick notation [] have been placed on reserve at the Health Sciences Library)*

Adams K. (2004). Hemodynamic assessment: The physiologic basis for turning data into clinical information. AACN Clinical Issues: Advanced Practice in Acute and Critical Care 15(4): 534-546.

Casey P. (2004). Markers of myocardial injury and dysfunction. AACN Clinical Issues: Advanced Practice in Acute and Critical Care 15(4): 547-557.

*Darovic, G. (2002). Hemodynamic monitoring: Invasive and noninvasive clinical application. 3rd ed. Philadelphia: W.B. Saunders Co.

Darovic, G. & Franklin, C. (1999). Handbook of hemodynamic monitoring. Philadelphia: W.B. Saunders.

Dubin, D. (2000) Rapid interpretation of EKG's : an interactive course. 6th ed. Tampa, FL. Cover Publishing Company

*Fischbach, F. (2004). A manual for laboratory and diagnostic tests. 7th ed. Philadelphia: Lippincott.

Grauer, K. (1998). A practical guide to ECG interpretation. 2nd ed. St. Louis: C.V. Mosby Company.

Haymore J. (2004). A neuron in a haystack: Advanced neurologic assessment. AACN Clinical Issues: Advanced Practice in Acute and Critical Care 15(4): 568-581.

*Hickey J. (2002). The clinical practice of neurological and neurosurgical nursing. 5th ed. Philadelphia: Lippincott.

*Isselbacher KJ, Braunwald E, Wilson JD, et al Eds. (2005) Harrison's Principles of Internal Medicine. 16th ed. New York: McGrawHill.

Johnson K. (2004). Diagnostic measures to evaluate oxygenation in critically ill adults: Implications and limitations. AACN Clinical Issues: Advanced Practice in Acute and Critical Care 15(4): 506-524.

*MacIntyre N. & Branson, R. (2001). Mechanical Ventilation. Philadelphia: WB Saunders.

*McQuillan K, Von Rueden K., Hartsock R., Flynn MB Whalen E. (2003). Trauma Nursing: From Resuscitation through Rehabilitation. Philadelphia: WB Saunders Co. (New Edition planned for 2007)

*Morton PG, Fontaine DK, Hudak CM, Gallo BM. (2005) Critical Care Nursing: A Holistic Approach. 8th ed. Philadelphia: Lippincott, Williams, Wilkens. (New Edition planned for 2007)

Munro N. (2004). Evidence-based assessment: No more pride or prejudice. AACN Clinical Issues: Advanced Practice in Acute and Critical Care 15(4): 501-505.

Nebelkopf Elgart H. (2004). Assessment of fluid and electrolytes. AACN Clinical Issues: Advanced Practice in Acute and Critical Care 15(4): 607-621.

- Pierce, L. (2006). *Management of the Mechanically Ventilated Patient*. Philadelphia: W.B. Saunders.
- Payne C. (2004). Classification of acute coronary syndromes using the 12-lead electrocardiogram as a guide. AACN Clinical Issues: Advanced Practice in Acute and Critical Care 15(4): 558-567.
- Rempher K & Little J. (2004). Assessment of red blood cell and coagulation laboratory data. AACN Clinical Issues: Advanced Practice in Acute and Critical Care 15(4): 622-637.
- Sabol V. (2004). Nutrition assessment of the critically ill adult. AACN Clinical Issues: Advanced Practice in Acute and Critical Care 15(4): 595-606.
- Stonesifer E. (2004). Common laboratory and diagnostic testing in patients with gastrointestinal disease. AACN Clinical Issues: Advanced Practice in Acute and Critical Care 15(4): 582-594.
- VonRueden KT, Dunham CM. (1996). Evaluation of Oxygen delivery and consumption in multiple organ dysfunction syndrome. in Secor, VH. Multiple Organ Dysfunction and Failure, 2 ed. St.Louis: Mosby-Yearbook, Inc.
- Wagner, KD, Johnson, KL, Kidd, PS. (2006). High Acuity Nursing.(4th ed). Upper Saddle River NJ: Prentice Hall.
- Winters A & Munro N. (2004). Assessment of the mechanically ventilated patient: A advanced practice approach. AACN Clinical Issues: Advanced Practice in Acute and Critical Care 15(4): 525-533.
- *Woods, S., Froelicher, E., Motzer S., & Underhill, S. (2005). Cardiac Nursing, 5th ed. Philadelphia: Lippincott.

WEBLIOGRAPHY

Chest X-Ray

<http://rad.medpix.net>

Critical Care:

www.ccmtutorials.com/intro/index.htm

www.surgicalcriticalcare.net

Interpretation of ECG, Dale Dubin

www.cardiacmonitors.com/Nurse.cfm

Evidence Based Clinical Guidelines

www.guidelines.gov

Hemodynamic Monitoring, Oxygen Delivery/Utilization

www.edwards.com/Products/CCEducationMap

Invasive Hemodynamic Monitoring: Physiologic Principles and Clinical Applications – PDF file available at: www.edwards.com/NR/rdonlyres/C0C40515-E7AC-47CD-A9DF-16111EDC5CB1/0/InvasiveHDMPhysPrincBook.pdf

www.pacep.org

www.medical.philips.com/main/services/education/cardiac_monitoring.html

www.ccmtutorials.com/intro

See Hemodynamic insufficiency

www.rnceus.com

Site includes a fee for CEU's, but may proceed through tutorial for no cost if not applying for CEU's. Includes interpretation of ABGs and hemodynamic monitoring

www.pediatricsurgeon.com/clinicians/Rational.pdf

Excellent review article, includes PGE, hemodynamics, oxygen delivery/utilization

Mechanical Ventilation

www.ccmtutorials.com/rs/mv

www.4um.com/tutorial/icm/intubate.htm

See intubation and commencing mechanical ventilation

www.mtsinai.org/pulmonary/books/physiology/chap10a

www.ventworld.com/resources

Pulmonary Function

www.vh.org/providers/simulations/spirometry

www.medicine.ucsd.edu/clinicalmed.lung.htm

POLICIES:

Academic Integrity and Conduct:

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Audio/videotaping requires the permission of each instructor presenting material in this course.

Weather Related Cancellations:

The policy in the University of Maryland School of Nursing Handbook regarding weather related cancellations will be followed.

The following radio and television stations in the metropolitan areas of Baltimore and Washington, D.C. will be notified.

BALTIMORE MEDIA			WASHINGTON MEDIA		
Radio	WBAL	* 1090 AM	Radio	WMAL	630 AM
	WMIX	106.5 FM		WTOP	* 1500 AM
	WPOC	93 FM			
	WOLB	1010 AM			
Television	WMAR	Channel 2	Television	WRC	Channel 4
	WBAL	Channel 11		WJLA	Channel 7
	WJZ	Channel 13		WUSA	Channel 9
* Primary stations					

Up-to-date information can also be accessed by dialing 410-706-8622.

Heindel, Lou

From: Michael, Michele A.

Sent: Monday, February 05, 2007 5:25 PM

To: Esche, Carol; heindel louis; kauffman, karen ; kverno, karan; Lemaire, Gail S.; michael, michele; Morton, Patricia G.; proulx, joseph; Shaughnessy, Marianne; Smith, Claudia M.; Snapp, Carol A.; Wiseman, Rebecca F.

Subject: Agenda for Master's/DNP meeting

The Master's/DNP sub committee meets Monday February 12th from 1-3pm

We are meeting in room 470

Please make note of the room change

The agenda is as follows:

- I. Minutes
- II. Curriculum notes
- III. Nurs 780 Carol Snapp is requesting a change from two to one credits
- IV. Dr. Lemaire and Dr. Esche would like to bring the committee up to date regarding the scholarly paper
- V. Dr. Tilbury would like to update the committee regarding course requirements for Nurs 525
- VI. Bylaws review/discussion

Thanks Michele

**University of Maryland School of Nursing
Nurse Anesthesia Program
COURSE SYLLABUS
Phase II
Fall 2006**

COURSE TITLE: NURS 675 Advanced Anesthesia Nursing Seminar II

CREDITS: 4

Faculty: Lou Heindel, DNP, CRNA
Matthew D'Angelo, CRNA, MS
Michelle Duell, CRNA, MS

Time: Fall Final Semester

COURSE DESCRIPTION:

This anesthesia course is the second of two designed to integrate the didactic curriculum with several semesters of clinical anesthesia practice. Student Registered Nurse Anesthetists (SRNAs) will review the practice of nurse anesthesia using current information and resources reflecting the standards of practice in the field of nurse anesthesia. Emphasis will be placed on SRNAs reviewing material for the National Certification Exam for Nurse Anesthetists. This exam is composed of major content areas including basic sciences, clinical practice of anesthesia, anesthesia specialty areas such as pediatrics and obstetrical anesthesia, anesthesia equipment, history of nurse anesthesia and anesthesia patient safety.

PRE-REQUISITES: All Nurse Anesthesiology courses

COURSE OBJECTIVES:

Upon completion of this course, the SRNA will be able to:

- Integrate didactic knowledge of anesthesia with the clinical experience of anesthesia practice.
- Defend the knowledge and skills necessary for clinical anesthesia practice.
- Accomplish basic qualifications and competence in nurse anesthesia as measured by exams similar to the certification exam for nurse anesthetists.

TEXTBOOKS REQUIREMENTS: None

SUGGESTED TEXTBOOKS: Valley Anesthesia Review Course Book

COURSE REQUIREMENTS:

1. Students are expected to be punctual for class and attend class weekly. Evidence of quality preparation is expected for class.
2. Active and knowledgeable class participation is expected for all students.
3. Students are to take all scheduled exams and to complete the course evaluation questionnaire.

EVALUATION AND GRADING:

Assignment of the course grade will be based on the following distribution:

- | | |
|------------------|-----|
| a. Exam I | 30% |
| b. Exam II | 30% |
| c. Exam III | 30% |
| d. Participation | 10% |

Students **MUST** earn a B (3.0) or higher in this course to successfully progress to the spring semester.

GRADING CRITERIA:

A	90 – 100%	D	60 – 69
B	80 – 89	F	below 60
C	70 – 79		

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The Health Insurance Portability and Accountability Act (HIPAA) establishes privacy and protection for patient health information. It establishes a patient's rights including the right to access, inspect and obtain copies of protected health information, to amend the record, to review a list of disclosures and to request that uses and disclosures be restricted. Students are expected to complete an approved training program before beginning the clinical component of this course.

University of Maryland School of Nursing

COURSE SYLLABUS

Course Title: NURS 614-Principles of Anesthesia Nursing II

CREDITS: 3 semester hours

FACULTY:

Lou Heindel, DNP, CRNA *Course Coordinator*

William Howie, CRNA, MS

Caleb Rogovin, CRNA, MS

Linda Young, CRNA, MS

TIME:

3 hours per week

Spring, First Year

Course Descriptions:

This course is designed to further explore and develop concepts taught in Principles of Anesthesia Nursing I with an emphasis on the anesthetic management of the pediatric, geriatric and obstetrical patient. The student will review the specific anesthetic needs, unique physiological requirements and specific safety issues for each specialty. Students will learn to modify their standard anesthesia techniques for health adult patients to address the safety issues and unique needs of these groups.

Prerequisites:

NURS 613-Principles of Anesthesia Nursing I

Course Objectives:

Upon completion of this course, the graduate student will be able to:

- Analyze and discuss the anatomical and physiological differences of a pediatric, obstetrical and geriatric patient.
- Define and discuss the unique difference and anesthetic challenges of a pediatric, obstetrical and geriatric patient and the necessary modifications to the anesthesia care plan for each group.
- Discuss the specific safety issues of pediatric, geriatric and obstetrical patients.
- Develop a pre-operative evaluation utilizing knowledge of the physiological and safety issues of each sub-group and discuss the risk/benefits of a particular anesthetic technique for the procedure based on the patient's unique physiological situation.
- Develop a detailed anesthetic plan from pre-operative to post-operative care that addresses physiological, safety and specific anesthetic needs for the pediatric, geriatric and obstetrical patient.
- Formulate problem-solving techniques for anesthetic care incorporating knowledge of each group's physiological differences.

* Additional objectives will be provided by each speaker for their scheduled lecture(s).

Textbook Requirements:

Nagelhout, J. & Zaglaniczny, K., (2004). Nurse Anesthesia (3rd Edition)
Philadelphia: Saunders

Miller, R. D. (2004) Anesthesia (6th Edition) New York: Churchill Livingstone

Stoelting & Miller (2000). Basics of Anesthesia (4th Edition) New York: Churchill Livingstone.

Morgan, Jr. G.E., Mikhail, M.S.. 2002. Clinical Anesthesia (3rd Edition) New York, McCraw-Hill Appleton and Lange.

COURSE REQUIREMENTS:

Students are expected to read required and/or recommended readings for each class. Attendance at all lectures is expected. Completion of the course evaluation questionnaire and faculty evaluation questionnaire are expected. Written examinations will be used in assigning a final course grade. There will be three examinations given

EVALUATION AND GRADING:

The course grade will be based on the total points accumulated from all exams relative to the maximum points attainable. Assignment of letter grades will be based on the following percentages:

A = 90 - 100%

B = 80 - 89%

C = 70 - 79%

D = 60 - 69%

F = ≤ 59%

Exam 1 will equal 1/3 of the course grade

Exam 2 will equal 1/3 of the course grade

Exam 3 will equal 1/3 of the course grade

POLICIES:**Academic Integrity and Conduct:**

Students are referred to the University of Maryland School of Nursing Student Handbook for all policies regarding academic integrity and conduct. These include the University of Maryland System Policy on Faculty, Students and Institutional Rights and Responsibilities for Academic Integrity, the School of Nursing Statement of Student Rights and Responsibilities, and the University of Maryland Graduate Policies and Procedures for Academic Misconduct.

Weather Related Cancellations:

The policy in the University of Maryland School of Nursing Handbook regarding Weather related cancellations will be followed.

Taping Policy: Audio/videotaping requires permission of each instructor presenting material in this course.

PRINCIPLES OF ANESTHESIA NURSING II
NURS 614 (3 CR) 1200-3:00 PM

Week	Lecture Topic	Required Reading	Lecturer
1 01.23.06	Basic Principles of Anesthesia for OB	Miller RD: 2307-2345 Morgan: 819-848 Nagelhout: 1052-1096	Dr. Pellegrini, CRNA
2 01.30.06	Anesthesia for ENT and Maxillofacial Surgery	Miller RD: 2527-2556 Morgan: 771-782 Nagelhout: 858-880	Mr. D'Angelo, CRNA
3 02.06.06	Anesthesia for Geriatric Patients	Miller RD: 2435-2450 Morgan: 875-881 Nagelhout: 1133-1140	Mr. Howie, CRNA
4 02.13.06	Infection Control and OR Safety	Miller RD: Morgan: Nagelhout:	Mr. Rogovin, CRNA
02.20.06	EXAM 1		Mr. Howie, CRNA
6 **3/1/06	Growth and Development Pre-anesthetic Assessment	Miller RD: 2367-2408 Morgan: 849-874 Nagelhout: 1097-1132	Ms. Massie, CRNA 9-12PM R-106
7 **03.08.06	Pediatric Airway, Management Fluid Management and Pharmacology	Miller RD: 2367-2408 Morgan: 849-874 Nagelhout: 1097-1132	Ms. Massie, CRNA 9-12PM R-106
8 **03.15.06	General Anesthesia for Pediatrics Regional Anesthetic Techniques	Miller RD: 2367-2408 Morgan: 849-874 Nagelhout: 1097-1132	Ms. Massie, CRNA 9-12PM R-106
03.20.06	SPRING BREAK		
9 03.27.06	Malignant Hyperthermia	Miller RD: 1169-1186 Morgan: 869-874 Nagelhout: 726-731	**12-3PM Dr. Jane McCarthy, CRNA
04.03.06	EXAM 2		Mr. Howie, CRNA
11 04.10.06	Anesthesia for non-Cardiac Surgery in the Cardiac Patient	Miller RD: 1053-085 Morgan: 386-432 Nagelhout: 445-459	Ms. Briggitt Pope, CRNA
12 04.17.06	Outpatient Anesthesia	Miller RD: 2589-2636 Morgan: 882-888 Nagelhout: 828-1096	Ms. Michelle Baxter, CRNA
13 04.24.06	Post-Anesthesia Care: Delayed Emergence, hypoxemia, hypothermia	Miller RD: 2703-2728 Morgan: 936-950 Nagelhout: 1141-1156	Mr. Howie, CRNA
14 05.01.06	Physiologic changes of Pregnancy	Miller RD: 2307-2344 Morgan: 819-848 Nagelhout: 1052-1096	Dr. Pellegrini, CRNA
?	Transfusion Therapy	Miller RD: 1799-1830 Morgan: 626-643 Nagelhout: 373-389	Mr. Connelly, CRNA
05.08.06	EXAM 3		Mr. Howie, CRNA

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University of Maryland School of Nursing
COURSE SYLLABUS
Spring-2007

Course Title: NURS 673-Anesthesia Nursing Practicum III

Credits: 5

Faculty: Lou Heindel, DNP, CRNA *Course Coordinator*
Matt D'Angelo, CRNA, MS
Michelle Duell, CRNA, MS

Time: Practicum-3 hours
Clinical Conference-2 hours

Course Description:

This clinical course provides opportunity for the student anesthetist to continue to develop judgment, insight and knowledge of clinical practice. Students will provide a pre-operative assessment and develop anesthesia care plans for more complex patients under the direct supervision of a Certified Registered Nurse Anesthetist or an anesthesiologist preceptor. Students will operate at a more advanced level, begin to develop more complex anesthesia care plans and administer anesthesia care more independently. Student nurse anesthetists will attend a weekly clinical conference to present cases to their peers and faculty. Students will discuss case problems and achievements and discuss solutions based on discussion with other students and faculty.

Prerequisites: NURS 637, NURS 654

Course Objectives:

Upon completion of this course, the graduate student will be able to:

- Demonstrate a more advanced knowledge of anesthesia care including being able to set up the anesthesia area appropriately with the necessary equipment for more complex cases.
- Plan anesthesia care for patients using more advanced knowledge of anesthesia concepts.
- Demonstrate knowledge of anesthesia and adjuvant drugs for more advanced surgical cases by appropriate selection of drugs, anesthetic agents and anesthetic techniques.
- Analyze more complex patient pathophysiology and its effect on the anesthetic management of the patient.
- Appropriately match the patient ASA physical category with patient pathophysiology.
- Promote safe and ethical conduct in the peri-operative environment.

Textbook Requirements:

- Miller RD (Ed.). Anesthesia 6th Ed. New York: Churchill Livingstone.
- Morgan GE, Mikhail MS, Murray MJ. Clinical Anesthesiology 3rd Ed. New York: McGraw Hill.
- Nagelhout JJ, Zaglaniczny KL (Eds.). Nurse Anesthesia 3rd Ed. St. Louis: Elsevier Saunders.

Course requirements:

Punctual attendance is expected at all scheduled class and clinical sessions. Students are responsible for course syllabi and outlines and are expected to complete course and reading assignments as scheduled. Active and knowledgeable class participation is expected of all students. Students will lead one 45 minute case discussion, consisting of a PowerPoint presentation, discussion of a review article and a question/answer period. Appropriate dress is required at all clinical sessions. Please turn off or silence cell phones and pagers.

Evaluation and Grading:

The course will be graded on a pass/fail basis. Acceptable participation will equate with student activities that include active dialogue with their peers and evidence of critical analysis of the presented article and case(s). Students failing to participate will be assigned a nonacceptable grade. While in the operating room, the daily and summative evaluations completed by clinical faculty will be used to assign a pass or fail grade. A student is required to "pass" both their clinical residency (daily and summative evaluation forms) and clinical case conference (weekly grade [acceptable or nonacceptable] provided by assigned faculty) to achieve a passing grade.

Policies on Academic Integrity and Conduct:

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Weather-related Cancellations:

The policy in the University of Maryland School of Nursing Handbook regarding weather-related cancellations will be followed.

Taping policy:

Audio/videotaping requires the permission of each instructor presenting material in the course.

The Health Insurance Portability and Accountability Act (HIPAA) establishes privacy and protection for patient health information. It establishes a patient's rights including the right to access, inspect and obtain copies of protected health information, to amend the record, to review a list of disclosures and to request that uses and disclosures be restricted. Students are expected to complete an approved training program before beginning the clinical component of this course.

CONTENT OUTLINE AND READINGS:**NURS 673 Anesthesia Nursing Practicum III**

Week	Lecture Topic	Required Reading
1 01.27.06	Article Presentation and Discussion Clinical Case Discussion and Review	Articles TBA Case Review and Discussion Faculty Heindel/Rogovin
2 02.03.06	Article Presentation and Discussion Clinical Case Discussion and Review	Articles TBA Case Review and Discussion Faculty Heindel/D'Angelo
3 02.10.06	Article Presentation and Discussion Clinical Case Discussion and Review	Articles TBA Case Review and Discussion Faculty Heindel/D'Angelo
4 02.17.06	Student Case Presentations	Students: Thomas & Haggas Faculty Mentor:
5 02.24.06	Article Presentation and Discussion Clinical Case Discussion and Review	Articles TBA Case Review and Discussion Faculty TBA
6 03.03.06	Student Case Presentations	Students: Brooks & Powell Faculty Mentor: Dr. Heindel
7 03.10.06	Student Case Presentations	Students: Nagbe & Carpenter Faculty Mentor: Mr. D'Angelo
8 03.17.06	Student Case Presentations	Students: Roberson & Marcelle & Libutti Faculty Mentor: Mr. Howie
9 03.31.06	Student Case Presentations	Students: Miller & Lin Faculty Mentor: Dr. Heindel
10 04.07.06	Student Case Presentations	Students: Anderson & Snyder Faculty Mentor: Mr. D'Angelo
11 04.14.06	Student Case Presentations **9-2PM**	Students: Perper, & Alcantra Faculty Mentor: Dr. Heindel, Ms. Duell and Mr. D'Angelo
12 04.21.06	Neurosurgical Anesthesia Lecture	**9-2PM** Dr. Dunford
13 04.28.06	Hypnosis in Anesthesia and Stress Management Student Case Presentations	Mr. Tim Smith, CRNA MoCombe, Purifoy
14 05.05.06	Exam after Pain lecture	
15 05.12.06	ORAL BOARDS	Faculty: Heindel, D'Angelo

Heindel, Lou

From: Raymond Moore [rmoore@umaryland.edu]
Sent: Thursday, February 01, 2007 11:08 AM
To: Heindel, Lou; Hockenberry, Brian
Subject: Proposal P21023 received

Received: 2/1/2007 11:06:19 AM

PI Heindel

Deadline: 02/09/2007

Sponsor: HRSA-BHP-Division of Nursing

Title: Nurse Anesthesia Traineeship Program (NAT 2007) Original Received

The Office of Research and Development has received your proposal referenced above. If we should need any corrections, we will contact you and/or your department administrator. If you have any questions please feel free to contact Kathryn.

**UNIVERSITY OF MARYLAND
SCHOOL OF NURSING**

**COURSE NURS 604
Spring 2006
SYLLABUS**

COURSE TITLE AND NUMBER:

NURS 604
Pharmacology of Anesthesia Nursing

CREDITS:

3 semester hours

FACULTY:

Lou Heindel, DNP, CRNA

TIME: Spring

COURSE OVERVIEW:

This course will provide a comprehensive understanding of the pharmacology of the inhalational anesthetics. The principles of uptake and distribution (pharmacokinetics) of inhalational anesthetics will be discussed along with factors that influence the rate of rise of alveolar tension. This course will also cover the Pharmacokinetics and Pharmacodynamics of intravenous anesthesia drugs, as well as opioid agonists, barbiturates, neuromuscular blocking agents and cardiovascular medications.

PRE/COREQUISITES: None

COURSE OBJECTIVES:

Upon completion of this course the student will:

1. Discuss how the concepts that comprise uptake and distribution of volatile agents affect induction, maintenance, and emergence from an anesthetic.
2. Explain how physiologic variables impact the pharmacokinetics of inhalational agents.
3. Describe the pharmacodynamics of the volatile anesthetics used in contemporary anesthetic practice.
4. Restate the pharmacokinetics and pharmacodynamics of intravenous anesthesia drugs.
5. Recall the chemical structure and cellular mechanism of action of intravenous anesthetic drugs.
6. Calculate the dosage of intravenous anesthetic agents based upon preoperative variables such as weight and type of surgical procedure.
7. Apply the knowledge of the stimulation of the Mu-1, Mu-2, Kappa, Delta and Sigma receptors and their physiologic effects on major bodily organ systems to the anesthetist's choice of agonist agents.
8. Explain the pharmacodynamics and pharmacokinetics of neuromuscular-blocking drugs (NMBD).
9. Identify clinical uses of the *depolarizing* versus *non-depolarizing* NMBD's based upon the drug's

2/12/2007

- a. Mechanism of action
- b. Chemical structure
- c. Onset, duration and elimination
- d. Adverse effects.

TEXTBOOK REQUIREMENTS:

Miller, R. (2005). Anesthesia. 6th ed. New York: Churchill Livingstone.

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

Nagelhout, J., Zaglinczny, K. (2005). Nurse Anesthesia. 3rd ed. Philadelphia: W.B. Saunders Company.

COURSE REQUIREMENTS:

Students are expected to read required and/or recommended readings for each class. Attendance at all lectures is expected. Completion of the course evaluation questionnaire and faculty evaluation questionnaire are expected. Written examinations will be used in assigning a final course grade. There will be three examinations given.

EVALUATION AND GRADING:

The course grade will be based on the total points accumulated from all exams relative to the maximum points attainable.

Exam 1 will equal 33 1/3

Exam 2 will equal 33 1/3

Exam 3 will equal 33 1/3

100%

POLICIES:

Academic Integrity and Conduct:

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Weather Related Cancellations:

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Taping Policy:

Audio/videotaping requires permission of each instructor presenting material in this course.

**Anesthesia Pharmacology
Lecture Schedule
NURS 604
8-11 AM**

Week	Lecture Topic	Required Reading	Lecturer
1 01.23.06	Uptake and Distribution of Inhalational Anesthetics	Miller RD: 105-153 Morgan: 127-150 Nagelhout: 75-101	Mr. Howie, CRNA
2 01.30.06	Uptake and Distribution of Inhalational Anesthetics (2) and Pharmacology of Inhalational Anesthetics	Miller RD: 155-272 Morgan: 1127-150 Nagelhout: 75-101	Mr. Howie, CRNA
3 02.06.06	Pharmacology of Inhalational Anesthetics (2)	Miller RD: 155-272 Morgan: 127-150 Nagelhout: 75-101	Mr. Howie, CRNA
4 02.13.06	Clinical Applications of Uptake/Distribution and Inhalation Anesthetics	Miller RD: Same as above Morgan: Nagelhout:	Dr. Samet ST Fellow 12-3PM***
5 02.20.06	Local Anesthetics	Miller RD: 573-604 Morgan: 233-241 Nagelhout: 982-985	Dr. Heindel, CRNA
02.27.06	EXAM 1 (Weeks 1-4)		Mr. Howie, CRNA
7 03.06.06	Pharmacokinetics	Miller RD: 67-401; 439-451 Morgan: Nagelhout: 60-74, 102	**12-3PM** Dr. Bauer
8 03.13.06	Neurophysiology of Nausea & Vomiting	Miller RD: 2595-2601 Morgan: 242-248 Nagelhout: 842-845	**12-3PM** Dr. Maye, CRNA
03.20.06	SPRING BREAK		
9 03.27.06	Opioid agonists and antagonists	Miller RD: 379-438 Morgan: 164-173 Nagelhout: 149-161	**08-1100** Dr. Austin, CRNA
04.03.06	EXAM 2 (Weeks 5-9)		Mr. Howie, CRNA
04.10.06	Barbiturates, Nonbarbiturates and Benzodiazepines	Miller RD: 317-378 Morgan: 160-164 Nagelhout: 102-125	Chris Ouderkerk, CRNA
04.17.06	Cardiac Pharmacology	Miller RD: 617-677 Morgan: 212-232 Nagelhout: 196-221	Dr. Sikorski UMMS
04.24.06	Neuromuscular Blocking Agents	Miller RD: 481-572 Morgan: 178-198 Nagelhout: 162-195	Dale Downey, CRNA ?
05.01.06	Neuromuscular Blocking Agents	Miller RD: Same as above Morgan: Nagelhout:	"
05.08.06	EXAM 3		

**UNIVERSITY OF MARYLAND
SCHOOL OF NURSING**

**COURSE SYLLABUS
Spring 2006**

COURSE TITLE AND NUMBER:

NURS 672

Principles of Anesthesia Nursing IV

CREDITS: 3 semester hours

FACULTY:

Lou Heindel, DNP, CRNA *Course Coordinator*

Matt D'Angelo, CRNA, MS

TIME:

3 hours per week

Time: TBD

COURSE OVERVIEW:

The course is designed to build on the information and techniques presented in Principles of Anesthesia I, II and III with an emphasis on the anesthetic management of the trauma patient including orthopedic, neurosurgical, thermal injury, and emergency patients. The student will review the specific anesthetic needs of the surgical trauma patient and the emergency surgical patient. Relevant pathophysiology, assessment process, clinical management and safety issues will be emphasized.

PRE/COREQUISITES:

NURS 627-Anesthesiology Nursing Practicum I

NURS 637-Anesthesiology Nursing Practicum II

NURS 657-Anesthesiology nursing Practicum III

COURSE OBJECTIVES:

Upon completion of these lectures and studying the graduate student will be expected to:

1. Design an anesthetic plan from pre-operative to post-operative care that addresses the physiologic needs of the trauma patient including orthopedic and emergency patients.
2. Explain the pathophysiology and anesthetic implications for surgical patients with cranial vault pathology.
3. Describe the volume resuscitation management of patients requiring blood component therapy along with critical assessment of coagulation studies.
4. Construct an anesthetic plan for a patient requiring surgery for 1st, 2nd, and 3rd degree burns.
5. Restate the advantages and disadvantages of various acute pain management techniques used in the management of trauma and elective surgical patients.
6. Discuss the pathophysiology of chronic pain and treatment modalities used to attenuate its effect on organ systems.

7. Review appropriate regional anesthetic techniques for trauma patients requiring emergency or elective surgery.

TEXTBOOK REQUIREMENTS:

- Miller RD (Ed.). Anesthesia 6th Ed. New York: Churchill Livingstone.
- Morgan GE, Mikhail MS, Murray MJ. Clinical Anesthesiology 3rd Ed. New York: McGraw Hill.
- Nagelhout JJ, Zaglaniczny KL (Eds.). Nurse Anesthesia 3rd Ed. St. Louis: Elsevier Saunders.

COURSE REQUIREMENTS:

Students are expected to read required and/or recommended readings for each class. Attendance at all lectures is expected. Completion of the course evaluation questionnaire and faculty evaluation questionnaire are expected. Written examinations will be used in assigning a final course grade. There will be three examinations given.

EVALUATION AND GRADING:

The course grade will be based on the total points accumulated from all exams relative to the maximum points attainable. Assignment of letter grades will be based on the following percentages:

- A = 90 - 100%
- B = 80 - 89%
- C = 70 - 79%
- D = 60 - 69%
- F = ≤ 59%

Exam 1 will equal 1/3 of the course grade

Exam 2 will equal 1/3 of the course grade

Exam 3 will equal 1/3 of the course grade

POLICIES:**Academic Integrity and Conduct:**

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Weather Related Cancellations:

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Taping Policy: Audio/videotaping requires permission of each instructor presenting material in this course.

CONTENT OUTLINE AND READINGS:
NURS 672
PRINCIPLES OF ANESTHESIA NURSING IV

Week	Lecture Topic	Required Reading	Lecturer
1 01.27.06	Hemodynamic Resuscitation – Crystalloids, Colloids, Blood Products	Miller RD: 1763-1798; 1799-1830 Morgan: 690-707 Nagelhout: 373-389	Dr. Dutton UMMS/ST
2 02.03.06	Anesthesia for ENT and Maxillofacial Surgery	Miller RD: 2527-2556 Morgan: 771-782 Nagelhout: 858-880	Mr. D'Angelo, CRNA
3 02.10.06	Anesthesia for Cardiovascular Surgery	Miller RD: 490-536 Morgan: 1941-2004 Nagelhout: 461-484	Dr. Sikorski UMMS
4 02.17.06	Anesthesia for Patients with Endocrine Disease	Miller RD: 1019-1027; 1776-1781 Morgan: 802-816 Nagelhout: 737-782	Mr. D'Angelo
02.24.06	EXAM 1		Mr. D'Angelo
6 03.03.06	Critical Care Management: Mechanical Ventilation in acute lung injury	Miller RD: 2787-2809 Morgan: 1018-1064 Nagelhout:	Dr. Kevin Gerold, Bayview
7 03.10.06	Anesthesia for Orthopedic Procedures and Anesthesia in Remote locations	Miller RD: 2409-2434; 2637 Morgan: 848-860 Nagelhout: 908-925	Lee Olson, CRNA
8 03.17.06	Regional and Trauma Anesthesiology		Dr. Ron Samet, UMMS/STC
9 03.31.06	Anesthesia for Thoracic Surgery	Miller RD: 1847-1939 Morgan: 585-613 Nagelhout: 574-590	Kathy Crowley, CRNA
04.07.06	EXAM 2		Mr. D'Angelo
11 04.14.06	Critical Care Management: Resuscitation in Sepsis	Miller RD: 2787-2809 Morgan: 1018-1064 Nagelhout:	Dr. Kevin Gerold, Bayview
12 04.21.06	Neurosurgical Anesthesia & Monitoring. Cerebral Aneurysm Surgery	Miller RD: 2127-2171 Morgan: 631-646 Nagelhout: 591-631	***11-3PM*** Dr. Dunford WRAMC
13 04.28.06	09-12 Hypnosis in Anesthesia STUDENT PRESENTATION TO FOLLOW		Tim Smith, CRNA
14 05.05.06	9-12 Acute/Chronic Pain Management 1pm-2:30 FINAL EXAM	Miller RD: 2729-2784 Morgan: 359-411 Nagelhout: 1157-1182	Dr. TARANTINO
05.12.06	ORAL BOARDS	7A – 5P	FACULTY

2/12/2007

05.26.06

ORAL BOARDS

7A – 2P

FACULTY

2/12/2007

**UNIVERSITY OF MARLAND
SCHOOL OF NURSING**

COURSE SYLLABUS
Spring 2006

Course Title and Number:

NPHY 620: Pathophysiological Alterations in the Critically Ill

Credits: 2 credits

Faculty:

Karen Johnson RN, PhD, CCRN
Office: 778
Phone: 410-706-7708
Email: kjohnson@son.umaryland.edu

Sandy McLeskey RN, PhD
Office: 762
Phone: 410-706-4337
Email: mcleskey@son.umaryland.edu

Kathryn Von Rueden RN, MS, FCCM
Office: 362
Phone: 410-706-5253
Email: vonrueden@son.umaryland.edu

Time: Tuesdays 10:00 am – 12:00 pm

Course Overview:

This course is designed to provide the student with an opportunity to gain an in-depth knowledge of specific pathophysiologic processes often experienced by critically ill patients. Learning is reinforced during scheduled time in critical care areas where the students analyze and evaluate patients demonstrating some of the pathophysiologic problems discussed during the didactic portion of the class. Regularly scheduled clinical seminar presentations done by the student permits the student to apply theoretical knowledge to specific situations.

Pre/Corequisites:

NPHY 612, NURS 605, NURS 623, NURS 723

Course Objectives:

Upon completion of this course, the student will be able to:

1. Identify specific alterations in the physiological processes in critically ill patients.
2. Analyze the etiology, pathogenesis, signs, symptoms, and sequelae of physiologic alterations commonly seen in critically ill patients.
3. Compile a database for a critically ill patient based on a specific pathophysiologic process.
4. Present an analysis of significant findings for a patient with a pathophysiologic process discussed in class according to the "Guidelines for Case Study Presentation".

Textbook Requirements:

Required:

Selected readings from journals.

McCance K & Heuther S. (2002). The Biologic Basis for Diseases in Adults and Children (4th ed). St Louis: CV Mosby.

Recommended:

McCance K & Heuther S. (2006). The Biologic Basis for Diseases in Adults and Children (5th ed). St Louis: CV Mosby.

Guyton AC, & Hall JE. (2006). Textbook of Medical Physiology (11th ed), Philadelphia: WB Saunders.

Nelson D & Cox M (2005). Lehninger's Principles of Biochemistry (4th ed). New York: Worth Publishers.

Course Requirements:

1. Prepare for class by reading required literature.
2. Active participation in class discussion.
3. Active participation in preparation of case studies.
4. Demonstrate knowledge of content discussed in class on written examinations scheduled and presentation of case studies.
5. Utilize appropriate sources for presentation of clinical cases.
6. Apply theoretical knowledge and clinical correlation of didactic content to case studies.
7. Present a *detailed* pathophysiological analysis of case study in a logical manner according to "Criteria for Evaluation of Case Study Presentations".

Evaluation and Grading:

The students' ability to apply theoretical knowledge will be evaluated through the presentation of a case study and written examinations. Evaluation of the learning of didactic content will be accomplished by two written multiple-choice examinations. Students are expected to evaluate the course by completion of a course evaluation form at the end of the course.

Criteria for Final Grade:

Case study presentation	33.3%
Midterm Exam	33.3%
Final Exam	33.3%

Policies:

Academic Integrity and Conduct:

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Weather Related Cancellations:

The policy in the University of Maryland School of Nursing Handbook regarding weather related cancellations will be followed. In the event of inclement weather conditions, the UMB President or his designee will make a decision regarding the status of UMB. Once a decision has been made, up-to-date information can be accessed by dialing the UMB information number **410-706-8622**. Although television and radio stations are notified regarding school closings, please confirm announcements by calling the number above.

Course Schedule:

	Topic	Required Readings
1/24	Course Overview; Group assignment & planning; "How give a presentation"	McConnell EA. (2002). Making outstandingly good presentations. <u>Dimensions of Critical Care Nursing</u> 21(1), 28-30.
1/31	Cell Metabolism I: Glucose Metabolism (Renn)	Guyton or Nelson
2/7	Cell Metabolism II: Lipid & Protein Metabolism (Renn)	Guyton or Nelson
2/14	RBC Physiology in Critical Illness (Johnson)	<ul style="list-style-type: none"> •Scharte M & Fink MP. (2003). Red blood cell physiology in critical illness. <u>Crit Care Med</u> 31 (12 suppl), S651 – S657. •Ho J, Sibbald WJ, Chin-Yee, IH. (2003). Effects of storage in efficacy of red cell transfusion: When is it not safe? <u>Crit Care Med</u> 31 (12 suppl), S687 – S697. •Pearl RG & Pohlman A. (2002). Understanding and managing anemia in critically ill patients. <u>Crit Care Nurse</u>, Supplement December, 1 – 14.
2/21	Coagulopathies in Critical Illness (Von Rueden)	<ul style="list-style-type: none"> •Lapointe LA & Von Reuden KT. (2002). Coagulopathies in trauma patients. <u>AACN Clin Issues</u> 13 (2), 192 – 203. •Cate, HT. (2000). Pathophysiology of disseminated intravascular coagulation in sepsis. <u>Crit Care Med</u> 28 (suppl 9), S9 – S11. •Levi M, de Jonge E, van der Poll T. (2004). New treatment strategies for disseminated intravascular coagulation based on current understanding of the pathophysiology. <u>Annals of Med</u> 36, 41-49.
2/28	Immunosuppression (McLeskey)	<ul style="list-style-type: none"> •McCance (820-824, 829-830) •Gea-Banacloche JC et al. (2004). Sepsis associated with immunosuppressive medications: An evidenced based review. <u>Crit Care Med</u> 32, S578-S590. •Pizzo PA (1999). Fever in immunocompromised patients. <u>New Engl J Med</u> 341, 893-900.
3/7	Hypothalamic Pituitary Axis in Critical Illness (Johnson)	•Williams DT, Harding K. (2003). Healing responses of skin and muscle in critical illness. <u>Crit Care Med</u> 31(6), S547 – S557.

		<ul style="list-style-type: none"> •Johnson KL, Renn C. (2006). Hypothalamic-pituitary axis in critical illness. <u>AACN Clinical Issues</u> 17(1), 33 – 43. •Robinson LE, Van Soeren MH. (2004). Insulin resistance and hyperglycemia in critical illness. <u>AACN Clin Issues</u> 15(1), 45 – 62.
3/14	Midterm Exam	
3/21	Spring Break	
3/28	Acute brain injury (Johnson/Jackson)	<ul style="list-style-type: none"> •Povlisbock JT & Katz DI. (2005). Update of neuropathology and neurological recovery after traumatic brain injury. <u>J Head Trauma Rehab</u> 20(1), 76-94. •Mcilvoy LH. (2005). Effect of hypothermia and hyperthermia on acute brain injury. <u>AACN Clin Issues</u> 16(4), 488-520. •Nolan S. (2005). Traumatic brain injury. <u>Crit Care Nurs Q</u> 28(2), 188-194.
4/4	Acute Lung Injury & Acute Respiratory Distress Syndrome (Johnson)	<ul style="list-style-type: none"> •Taylor MM. (2005). ARDS Diagnosis and Management. <u>Dimens in Crit Care Nurs</u> 24 (5), 197 – 207. •Plantadosi CA & Schwartz DA. (2004). The acute respiratory distress syndrome. <u>Ann Intern Med</u> 141, 460 – 470. •Toy P, Popovsky MA, Abraham E. et al (2005). Transfusion related acute lung injury: Definition and review. <u>Crit Care Med</u> 33 (4), 721 – 726. •Vollman KM. (2004). Prone positioning in the patient who has acute respiratory distress syndrome: The art & science. <u>Crit Care Nurs Clin N Am</u> 16, 319 – 336.
4/11	Reperfusion Injury (Von Rueden)	<ul style="list-style-type: none"> •Reffellmann T, Kloner RA. (2002). The “No-reflow” phenomenon: Basic science and clinical correlates. <u>Heart</u> 87(2), 162-168. •Verma S, Fedak P, Weisel et al. (2002). Fundamentals of reperfusion injury for the clinical cardiologist. <u>Circulation</u> 105, 2332-2336. •Brennan J. (2000). Reperfusion injury of cardiac myocytes: Mechanisms, treatment, and implications for advanced practice nursing. <u>AACN Clin Issues</u> 11(2), 252- 260.
4/18	Acute Renal Failure (Johnson)	<ul style="list-style-type: none"> •Henke K & Eigsti J. (2003). Renal physiology: Review and practical application in the critically ill patient. <u>Dimens Crit Care Nurs</u>

		<p>22(3), 125 – 132.</p> <ul style="list-style-type: none"> •Schrier RW & Wang W. (2004). Acute renal failure & sepsis. <u>N Engl J Med</u> 351, 159 0 169. •Molitoris BA, Sandoval R, Sutton TA. (2002). Endothelial injury and dysfunction in ischemic acute renal failure. <u>Crit Care Med</u> 30 (Supple 5), S 235 – S240. •Debavaeye YA & Van den Berghe GH. (2004). Is there still a place for dopamine in the modern intensive care unit? <u>Anesth Analg</u> 98, 461 – 468.
4/25	Systemic Inflammatory Response Syndrome, Sepsis, Septic Shock (Johnson)	<ul style="list-style-type: none"> •Bridges EJ, Dukes S. (2005). Cardiovascular aspects of septic shock: Pathophysiology, monitoring, treatment. <u>Crit Care Nurs</u> 25(2), 14 – 40. •Hotchkiss RS & Karl IE. (2003). The pathophysiology and treatment of sepsis. <u>New Engl J Med</u> 348, 138 – 150. •Dellinger RP, Carlet JM, Masur H et al. (2004). Surviving sepsis campaign guidelines for management of severe sepsis and septic shock. <u>Crit Care Med</u> 32, 858 – 873. •Braun L, Copper LM, Malatestinic WN et al. (2003). A sepsis review. <u>Dimens Crit Care Nurs</u> 22(3), 117 – 124. •Schulman CS & Hare K. (2003). New thoughts on sepsis: the unifier of critical care. <u>Dimens Crit Care Nurs</u> 22 (1), 20 – 30.
5/2	Multiple Organ Dysfunction Syndrome (Johnson)	<ul style="list-style-type: none"> •Doig CJ, Zygun DA, Fick GH et al. (2004). Study of clinical course of organ dysfunction in intensive care. <u>Crit Care Med</u> 32(2), 384 – 390. •Kuiper JW, Groeneveld BJ, Slutsky AS, et al. (2005). Mechanical ventilation and acute renal failure. <u>Crit Care Med</u> 33(6), 1408 – 1415. •Ely EW, Kleinpell RM, Goyette RE. (2003). Advances in understanding of clinical manifestations and treatment of severe sepsis: An update for critical care nurses. <u>Am J Crit Care</u> 12, 120 – 135.
5/9	Liver Failure Case Study DKA Case Study	
5/16	Course Evaluations, Final Exam	

University of Maryland School of Nursing
Spring 2007
COURSE SYLLABUS

Course Title: NURS 614-Principles of Anesthesia Nursing II

CREDITS: 3 semester hours

FACULTY:

Lou Heindel, DNP, CRNA *Course Coordinator*
Matthew D'Angelo, CRNA, MS

TIME:

3 hours per week
Spring, First Year

Course Descriptions:

This course is designed to further explore and develop concepts taught in Principles of Anesthesia Nursing I with an emphasis on the anesthetic management of the pediatric, geriatric and obstetrical patient. The student will review the specific anesthetic needs, unique physiological requirements and specific safety issues for each specialty. Students will learn to modify their standard anesthesia techniques for health adult patients to address the safety issues and unique needs of these groups.

Prerequisites:

NURS 613-Principles of Anesthesia Nursing I

Course Objectives:

Listed in course documents

Textbook Requirements:

See reading list.

COURSE REQUIREMENTS:

Students are expected to read required and/or recommended readings for each class. Attendance at all lectures is expected. Completion of the course evaluation questionnaire and faculty evaluation questionnaire are expected. Written examinations will be used in assigning a final course grade. There will be three examinations given

EVALUATION AND GRADING:

The course grade will be based on the total points accumulated from all exams relative to the maximum points attainable. Assignment of letter grades will be based on the following percentages:

A = 90 - 100%
B = 80 - 89%
C = 70 - 79%
D = 60 - 69%
F = ≤ 59%

Exam 1 will equal 1/3 of the course grade
Exam 2 will equal 1/3 of the course grade
Exam 3 will equal 1/3 of the course grade

POLICIES:

Academic Integrity and Conduct:

Students are referred to the University of Maryland School of Nursing Student Handbook for all policies regarding academic integrity and conduct. These include the University of Maryland System Policy on Faculty, Students and Institutional Rights and Responsibilities for Academic Integrity, the School of Nursing Statement of Student Rights and Responsibilities, and the University of Maryland Graduate Policies and Procedures for Academic Misconduct.

Weather Related Cancellations:

The policy in the University of Maryland School of Nursing Handbook regarding Weather related cancellations will be followed.

Taping Policy: Audio/videotaping requires permission of each instructor presenting material in this course.

THE HEALTH INSURANCE PORTABILITY AND ACCOUNTABILITY ACT (HIPAA) ESTABLISHES PRIVACY AND PROTECTION FOR PATIENT HEALTH INFORMATION. IT ESTABLISHES A PATIENT'S RIGHTS INCLUDING THE RIGHT TO ACCESS, INSPECT AND OBTAIN COPIES OF PROTECTED HEALTH INFORMATION, TO AMEND THE RECORD, TO REVIEW A LIST OF DISCLOSURES AND TO REQUEST THAT USES AND DISCLOSURES BE RESTRICTED. STUDENTS ARE EXPECTED TO COMPLETE AN APPROVED TRAINING PROGRAM BEFORE BEGINNING THE CLINICAL COMPONENT OF THIS COURSE.

**UNIVERSITY OF MARYLAND
SCHOOL OF NURSING**

**COURSE NURS 604
Spring 2007
SYLLABUS**

COURSE TITLE AND NUMBER:

NURS 604
Pharmacology of Anesthesia Nursing

CREDITS:

3 semester hours

FACULTY:

Lou Heindel, DNP, CRNA
Matthew D'Angelo, CRNA, MS

TIME: Spring

COURSE OVERVIEW:

This course will provide a comprehensive understanding of the pharmacology of the inhalational anesthetics. The principles of uptake and distribution (pharmacokinetics) of inhalational anesthetics will be discussed along with factors that influence the rate of rise of alveolar tension. This course will also cover the Pharmacokinetics and Pharmacodynamics of intravenous anesthesia drugs, as well as opioid agonists, barbiturates, neuromuscular blocking agents and cardiovascular medications.

PRE/COREQUISITES: None

COURSE OBJECTIVES:

Upon completion of this course the student will:

1. Discuss how the concepts that comprise uptake and distribution of volatile agents affect induction, maintenance, and emergence from an anesthetic.
2. Explain how physiologic variables impact the pharmacokinetics of inhalational agents.
3. Describe the pharmacodynamics of the volatile anesthetics used in contemporary anesthetic practice.
4. Restate the pharmacokinetics and pharmacodynamics of intravenous anesthesia drugs.
5. Recall the chemical structure and cellular mechanism of action of intravenous anesthetic drugs.
6. Calculate the dosage of intravenous anesthetic agents based upon preoperative variables such as weight and type of surgical procedure.
7. Apply the knowledge of the stimulation of the Mu-1, Mu-2, Kappa, Delta and Sigma receptors and their physiologic effects on major bodily organ systems to the anesthetist's choice of agonist agents.
8. Explain the pharmacodynamics and pharmacokinetics of neuromuscular-blocking drugs (NMBD).

2/12/2007

9. Identify clinical uses of the *depolarizing* versus *non-depolarizing* NMBD's based upon the drug's
- Mechanism of action
 - Chemical structure
 - Onset, duration and elimination
 - Adverse effects.

TEXTBOOK REQUIREMENTS:

Evers, A, & Maze, M. (2004). Anesthetic Pharmacology. Philadelphia: Churchill Livingstone.

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

Nagelhout, J., Zaglinczny, K. (2005). Nurse Anesthesia. 3rd ed. Philadelphia: W.B. Saunders Company.

COURSE REQUIREMENTS:

Students are expected to read required and/or recommended readings for each class. Attendance at all lectures is expected. Completion of the course evaluation questionnaire and faculty evaluation questionnaire are expected. Written examinations will be used in assigning a final course grade. There will be three examinations given.

EVALUATION AND GRADING:

The course grade will be based on the total points accumulated from all exams relative to the maximum points attainable.

Exam 1 will equal 33 1/3

Exam 2 will equal 33 1/3

Exam 3 will equal 33 1/3

100%

POLICIES:

Academic Integrity and Conduct:

Students are referred to the University of Maryland School of Nursing Student Handbook for all policies regarding academic integrity and conduct. These include the University of Maryland System Policy on Faculty, Students and Institutional Rights and Responsibilities for Academic Integrity, the School of Nursing Statement of Student Rights and Responsibilities, and the University of Maryland Graduate Policies and Procedures for Academic Misconduct.

Weather Related Cancellations:

The policy in the University of Maryland School of Nursing Handbook regarding Weather related cancellations will be followed.

Taping Policy:

Audio/videotaping requires permission of each instructor presenting material in this course.

NURS 614 Simulation Schedule Spring 2007

Wk	DATE	TOPIC	READING	NOTES
3	2/8/07	Machine Check – All Groups	M&M Ch 4	Review FDA Checklist on Blackboard
4	2/15/07	Airway Management – All Groups	Ch 8 EBP Reading Ch 15 EBP Reading	
6	3/1/07	Induction Lab 1 – a Clinical Obs – b Off - c		
7	3/8/07	Induction Lab 1 – c Clinical Obs – a Off - b		
8	3/15/07	Induction Lab 1 – b Clinical Obs – c Off - a		
10	3/29/07	Intraoperative Management Lab - a Clinical Obs - b Off - c		
11	4/5/07	Intraoperative Management Lab - c Clinical Obs - a Off - b		
12	4/12/07	Intraoperative Management Lab - b Clinical Obs - c Off - a		
13	4/19/07	Crisis Management Lab - a Clinical Obs - b Off - c		
14	4/26/07	Crisis Management Lab - c Clinical Obs - a Off - b		
15	5/3/07	Crisis Management Lab - b Clinical Obs - c		

[illegible]

**UNIVERSITY OF MARYLAND
SCHOOL OF NURSING**

COURSE SYLLABUS

COURSE TITLE AND NUMBER:

NURS 637

Anesthesia Nursing Practicum I

CREDITS:

3 semester hours

Clinical and Didactic

FACULTY:

Lou Heindel, DNP, CRNA

Matthew D'Angelo, CRNA, MS

TIME:

Summer Year 1

COURSE OVERVIEW:

This course will build on the previous clinical experiences and lectures to allow the student nurse anesthetist to provide comprehensive anesthesia care through the whole spectrum of the anesthesia process. Students will continue to provide pre-anesthetic assessments, develop anesthesia care plans, provide safe and effective anesthesia pre-operatively, intra-operatively and post-operatively. Students will perform at a basic level under the supervision of a Certified Registered Nurse Anesthetist or anesthesiologist. Students will present and discuss cases, clinical difficulties and solutions with peers and faculty in a weekly clinical conference.

PRE/COREQUISITES: Successful matriculation through all of the preceding nurse anesthesia graduate curriculum

COURSE OBJECTIVES:

Upon completion of this course the student will be expected to:

1. Demonstrate knowledge of basic anesthesia requirements by setting up the anesthesia area appropriately with the necessary equipment for a specialty case.
2. Evaluate, plan and justify care for patients undergoing anesthesia at a more advanced level.
3. Demonstrate knowledge of anesthesia drugs and techniques for more advanced cases by appropriately choosing, drawing up and administering drugs and appropriately performing techniques.
4. Analyze patient pathology and appropriately match that pathology to the patient ASA physical status category.

5. Illustrate accurate record pre-operative assessment, intra-operative care and post-operative assessment.
6. Promote safe and ethical conduct in the peri-operative environment.

TEXTBOOK REQUIREMENTS:

Miller, R. (2005), Anesthesia, 6th ed. New York: Churchill Livingstone.

COURSE REQUIREMENTS:

Students are expected to read required and/or recommended readings for each class.

Attendance at all lectures is expected. Completion of the course evaluation questionnaire and faculty evaluation questionnaire are expected. Written examinations will be used in assigning a final course grade. There will be three examinations given.

COURSE REQUIREMENTS:

Attendance is expected at all scheduled class and clinical sessions. Appropriate dress is required at all clinical sessions. Students are expected to report to assigned clinical sites and will participate in clinical training on average 8 hours per day for 4 days per week. One day each week the graduate student will attend class at UM SON to participate in clinical case conferences. Students will be responsible to present representative clinical cases to their peers and lead a discussion on anesthetic management. The first scheduled class will provide an overview and orientation to the process of case presentations.

Subsequent weeks will involve select anesthetic cases assigned by faculty. Active and knowledgeable class participation is expected of all students. Completion of the course evaluation questionnaire and faculty evaluation questionnaire are expected.

EVALUATION AND GRADING:

The course will be graded on a pass/fail basis. Acceptable participation will equate with student activities that include active dialogue with their peers and evidence of critical analysis of the presented case(s). Students failing to participate will be assigned a nonacceptable grade. While in the operating room, the daily and summative evaluations completed by clinical faculty will be used to assign a pass or fail grade. A student is required to “pass” both their clinical residency (daily and summative evaluation forms) and clinical case conference (weekly grade provided by assigned faculty) to achieve a passing grade in NURS 637.

Grading criteria:

Grades for Pass or Fail will be based upon the following two items:

1. Weekly Clinical Case Conference – “acceptable” / “nonacceptable” level of participation assigned by the faculty attending the clinical case conference. If more than two “nonacceptable” grades are acquired during the course, a fail grade will be assigned to the SRNA (See attached evaluation tool)
2. Daily and Summative Evaluation Forms – the minimum score required is “meets expectations.” If two consecutive summative evaluations (in the overall evaluation / comments section) are scored “below expectations” the SRNA will be assigned a fail grade. (See attached evaluation tool)

POLICIES:

Academic Integrity and Conduct:

Students are referred to the University of Maryland School of Nursing Student Handbook for all policies regarding academic integrity and conduct. These include the University of Maryland System Policy on Faculty, Students and Institutional Rights and Responsibilities for Academic Integrity, the School of Nursing Statement of Student Rights and Responsibilities, and the University of Maryland Graduate Policies and Procedures for Academic Misconduct.

Weather Related Cancellations:

The policy in the University of Maryland School of Nursing Handbook regarding Weather related cancellations will be followed.

Taping Policy:

Audio/videotaping requires permission of each instructor presenting material in this course.

CONTENT OUTLINE AND READINGS:

Week	Lecture Topic	Required Reading
1	Orientation / Overview Course	Assigned readings form required text. Handouts TBA
2	Clinical Case Conference	TBA
3	Clinical Case Conference	TBA
4	Clinical Case Conference	TBA
5	Clinical Case Conference	TBA
6	Clinical Case Conference	TBA
7	Clinical Case Conference	TBA
8	Clinical Case Conference	TBA

The Health Insurance Portability and Accountability Act (HIPAA) establishes privacy and protection for patient health information. It establishes a patient's rights including the right to access, inspect and obtain copies of protected health information, to amend the record, to review a list of disclosures and to request that uses and disclosures be restricted. Students are expected to complete an approved training program before beginning the clinical component of this course.

UNIVERSITY OF MARYLAND
REPORT ON PROFESSIONAL CONSULTING AND
EXTERNAL PROFESSIONAL ACTIVITIES

NAME: _____

DEPARTMENT: _____

REPORTING PERIOD:

Company or Agency You Worked For	Amount of Time This Period _____ Total Hours	General Nature of the Work
Company or Agency You Worked For	Amount of Time This Period _____ Total Hours	General Nature of the Work
Company or Agency You Worked For	Amount of Time This Period _____ Total Hours	General Nature of the Work
Company or Agency You Worked For	Amount of Time This Period _____ Total Hours	General Nature of the Work

Faculty Member Signature

Responsible Administrator Signature

Instructions:

Each faculty member must complete a report each semester of all outside professional consulting and external professional activities.

These forms must be signed by the faculty member and responsible administrator and forwarded to the Dean.

**UNIVERSITY OF MARYLAND
SCHOOL OF NURSING**

COURSE SYLLABUS

COURSE TITLE AND NUMBER:

NURS 654

Principles of Anesthesia Nursing III

CREDITS: 3 semester hours

FACULTY:

Lou Heindel, DNP, CRNA

Matthew D'Angelo, CRNA, MS

TIME:

Summer Year I

COURSE OVERVIEW:

The course will build on the information presented in previous courses to familiarize the nurse anesthetist student with anesthetic drugs, techniques and surgical issues pertinent to obesity, respiratory disease, endocrine disorders and neurosurgical patients.

PRE/COREQUISITES:

NURS 613-Principles of Anesthesia Nursing I

NURS 614-Principles of Anesthesia Nursing II

COURSE OBJECTIVES:

Upon completion of this course the student will be expected to:

1. Design an anesthetic plan from pre-operative to post-operative care that addresses the physiologic needs of the obese, the respiratory compromised, those with endocrine disorders and patients requiring neurosurgical procedures.
2. Explain the pathophysiology and anesthetic implications for surgical patients with obesity, respiratory disease, endocrine disorders and neurosurgical disorders.
3. Construct pressure-volume loops for acute and chronic respiratory diseases.
4. Assess the effect of obesity on hemodynamic waveforms and parameters.
5. Review how different surgical techniques impact the development of an anesthesia management plan for these patients.
6. Review appropriate neuroaxial regional anesthetic techniques.

TEXTBOOK REQUIREMENTS:

Miller RD (2005). Anesthesia. New York: Churchill Livingstone.

Morgan, GE, Mikhail, MS, Murray, MJ (2004). Clinical Anesthesia. New York: McGraw-Hill.

COURSE REQUIREMENTS:

Students are expected to read required and/or recommended readings for each class. Attendance at all lectures is expected. Completion of the course evaluation questionnaire and faculty evaluation questionnaire are expected. Written examinations will be used in assigning a final course grade. There will be three examinations given.

EVALUATION AND GRADING:

The course grade will be based on the total points accumulated from all exams relative to the maximum points attainable.

Exam 1 will equal 30% of the course grade

Exam 2 will equal 30% of the course grade

Exam 3 will equal 40% of the course grade

100%

POLICIES:**Academic Integrity and Conduct:**

Students are referred to the University of Maryland School of Nursing Student Handbook for all policies regarding academic integrity and conduct. These include the University of Maryland System Policy on Faculty, Students and Institutional Rights and Responsibilities for Academic Integrity, the School of Nursing Statement of Student Rights and Responsibilities, and the University of Maryland Graduate Policies and Procedures for Academic Misconduct.

Weather Related Cancellations:

The policy in the University of Maryland School of Nursing Handbook regarding Weather related cancellations will be followed.

Taping Policy:

Audio/videotaping requires permission of each instructor presenting material in this course.

The Health Insurance Portability and Accountability Act (HIPAA) establishes privacy and protection for patient health information. It establishes a patient's rights including the right to access, inspect and obtain copies of protected health information, to amend the record, to review a list of disclosures and to request that uses and disclosures be restricted. Students are expected to complete an approved training program before beginning the clinical component of this course.

CONTENT OUTLINE AND READINGS:

Week	Lecture Topic	Required Reading
1	Obesity and Anesthesia Orthopedic Anesthesia	M&M p. 748-749, 782-792, 40-57
2	Regional Anesthesia (Neuroaxial) Neuroanesthesia EXAM 1 – 6/15 9:00-10:15am	M&M p. 253-282, 552-582
3	Implications of Respiratory Disease Implications of Renal and Endocrine Disease	M&M p. 511-524, 662-690
4	EXAM 2 – 6/27 08:00-9:15am Advanced Airway Management Research Tools (Library)	M&M p. 59-85
5	NO CLASS (Tu-Thur)	
6	Final Exam (Cumulative) Ethics & Integrity	
7	Directors Time – TBD AIRWAY WORKSHOP 7/21 8a-4pm	

University of Maryland School of Nursing
COURSE SYLLABUS
NRSG 670
SUMMER-2006

Course Title: NRSG Seminar I Board Review

Credits: 2

Faculty:

Lou Heindel, DNP, CRNA
Matthew D'Angelo, CRNA, MS

Time: Seminar/Practicum 2 hours

Course Description:

This is an 8 week session designed to assist the student prepare for the Council on Certification of Nurse Anesthetists exam. Students will participate in a comprehensive review of content considered necessary to successfully complete the national certification exam for CRNAs. Students will be expected to actively participate in the presentation of assigned study topics. Students will read the contents of the Council on Certification of Nurse Anesthetists Candidate Handbook 2006. Student nurse anesthetists will attend a weekly review class to present study topics to their peers and faculty.

Prerequisites:

Course Objectives:

Upon completion of this course, the graduate student will be able to:

- Discuss the mission and purpose of the Council on Certification of Nurse Anesthetists Certification Exam.
- Discuss the contents of the CCNA Candidate Handbook for 2006.
- Demonstrate mastery of the basics physiology and pathophysiology presented throughout the 8-week course by correctly answering weekly quizzes with a minimum score of 80%.
- List at least 5five anesthetic implications relevant to normal or abnormal body system presentation
- Discuss common test taking strategies to help ensure success in taking the licensure exam.

Textbook Requirements:

- Miller RD (Ed.). *Anesthesia* 6th Ed. New York: Churchill Livingstone.
- Morgan GE, Mikhail MS, Murray MJ. *Clinical Anesthesiology* 3rd Ed. New York: McGraw Hill.
- Nagelhout JJ, Zaglaniczny KL (Eds.). *Nurse Anesthesia* 3rd Ed. St. Louis: Elsevier Saunders.

Recommended Textbooks

- Faust RJ (Ed.). *Anesthesiology Review* (2nd or 3rd Ed.) New York: Churchill Livingstone.
- McIntosh LW. *Essentials of Nurse Anesthesia*. New York: McGraw-Hill
- Roizen MF. & Fleisher LA. (1st or 2nd Ed) *Essence of Anesthesia Practice*. Philadelphia: Saunders
- Feel free to find any other textbooks or study guides. Let me know if you think they are helpful (please tell me why you find them helpful)

Course requirements:

Punctual attendance is expected at all scheduled class and clinical sessions. Students are responsible for course syllabi and outlines and are expected to complete course and reading assignments as scheduled. Active and knowledgeable class participation is expected of all students. Students will lead at least one 10-20 minute review session, consisting of a PowerPoint presentation, and a question/answer period. The student will be expected to provide a one-page summary of the lecture topic. The summary will include pertinent physiology/pathophysiology, clinical anesthesia implications, and references utilized, along with suggested further readings. The student will also supply 5 test questions to cover their presented topic. The student will provide the 5 most important anesthetic implications when considering any of the relevant body systems reviewed. Appropriate dress is required at all clinical sessions. Please turn off or silence cell phones and pagers.

Evaluation and Grading:

The course will be graded on a pass/fail basis. Acceptable participation will equate with student activities that include active dialogue with their peers and evidence of critical analysis of the presented review topic. Students failing to participate will be assigned a nonacceptable grade.

Policies on Academic Integrity and Conduct:

Students are referred to the University of Maryland School of Nursing Student Handbook for all policies regarding academic integrity and conduct. These include the University of Maryland System policy on Faculty and Students' Institutional Rights and Responsibilities for Academic Integrity, the School of Nursing Statement of Student Rights and Responsibilities and the University of Maryland Graduate Policies and Procedures for Academic Misconduct.

Weather-related Cancellations:

The policy in the University of Maryland School of Nursing Handbook regarding weather-related cancellations will be followed.

Taping policy:

Audio/videotaping requires the permission of each instructor presenting material in the course.

CONTENT OUTLINE AND READINGS:

NURS 670 NRSG Seminar/Board Review

Week	Lecture Topic	Required Reading
1 06.09.06	Course overview, review topic sign-up sheet	Standard anesthesia texts. Students choice of review book TBD. Faculty Howie/D'Angelo/Heindel
2 06.16.06	Review topics: 1.Cardiovascular basic physiology; 2.CV pathophysiolgy (HTN, Abnormal ECG/dysrhythmias, MI-Ischemias) 3. Valve disease-flow volume loops; 4. Congestive heart failure, IHSS, Congenital heart disease, Summary of anesthetic implications	References TBD Students TBD Topic Review and Discussion Faculty Heindel/Rogovin/D'Angelo
3 06.23.06	Review Topics: 1. Basic respiratory anatomy/physiology 2. Pulmonary pathophysiology (COPD, Emphysema, Chronic Bronchitis, Reactive Airway Disease) 3. Restrictive lung disease, ARDS, Pulmonary HTN 4. TB, SARS, Avian flu, ABG interpretation, Summary of anesthetic implications	References TBD Students TBD Topic Review and Discussion Faculty Heindel/Howie/D'Angelo
4 06.30.06	Review Topics: 1. Central Nervous System Basic Anatomy/Physiology 2. CNS Pathophysiology (Myasthenia gravis, Multiple sclerosis, Seizure disorders) 3. Seizure disorders, Parkinsons disease, alzheimer's, Guilliam-Barre' syndrome 4. Central regulation of ventilation, Effects of hyper/hypocarbica, Review of the sympathetic and Parasympathetic nervous system, Anesthetic implications	References TBD Students TBD Topic Review and Discussion Faculty Heindel/Howie/D'Angelo
5 07.07.06	Review Topics: 1. Endocrine system review (Pituitay gland-Anterior, Posterior, Normal physiology and Pathophysiology) 2. Adrenal Gland normal physiology and pathophysiology, perioperative steroid replacement, Pheochromocytoma, Cushings and Addisons Disease 3. Thyroid Gland normal and abnormal function, Parathyroid Gland normal and abnormal function 4.	References TBD Students TBD Topic Review and Discussion Faculty Heindel/Howie/D'Angelo

	Pancreas review of hormones and normal function, Pathophysiology, Pancreatitis, basics of insulin and oral hypoglycemic preparations, Obesity basics, Summary of anesthetic implications	
6 07.14.06	Review Topics: 1. The Hepatic System basic anatomy and physiology, hepatic function (secretory functions) 2. Hepatic Pathophysiology (ETOH liver disease, acute hepatitis, chronic hepatitis, cirrhosis) 3. GI, CV, Hematologic, CNS, Renal system manifestations of Hepatic disease 4. Evaluation of Hepatic function (LFTs, Albumin, PT, Bilirubin, Transaminases, Alk phos, Summary of Anesthetic implications	References TBD Students TBD Topic Review and Discussion Faculty Heindel/Howie/D'Angelo
7 07.21.06	Review Topics: 1. Musculo-skeletal (Basic review, Arthritis, Scoliosis, long-bone fractures) 2. GI system (Basic review, GERD/Ulcers, Splenic disease, Carcinoid syndrome) 3. Renal system review of anatomy and physiology 4. Renal pathophysiology (acute renal failure/chronic renal failure, Summary of anesthetic implications	References TBD Students TBD Topic Review and Discussion Faculty Heindel/Howie/D'Angelo
8 07.28.06	Review Topics: 1. Hematology normal anatomy and physiology 2. Pathophysiology (anemia's-sickle cell, pernicious , folate deficiency, Iron-deficient, aplastic, thalassemia, post hemorrhagic, hemolytic, chronic disease anemia, siderblastic,) 3. WBC disorders, Leukemias, HIV/AIDS, Platelet disorders 4. Major trauma/acute care, Substance abuse (patient), Anesthetic implications of Hematology, Trauma and substance abuse	References TBD Students TBD Topic Review and Discussion Faculty Heindel/Howie/D'Angelo



Council on Certification of Nurse Anesthetists
222 South Prospect Avenue
Park Ridge, Illinois 60068-4001
(847) 692-7050

113th Certification Examination
2006 Transcript of Student Record
for Graduates Enrolled After March 1, 2004

Program Code # 0000AANA # 076594**Special Instructions:**

- This transcript must be an original and cannot be handwritten or hand printed.
- A photo copy of the transcript form that has been completed is not considered an original.
- Corrections made with tape or fluid are not permitted.

Full Name (First) Gregory	(Middle)	(Last) Anderson
Present Address (Number & Street) 238 Padonia	(City) Timonium	(State) (Zip Code) MD 21093
Telephone (Area Code) 410-561-1549	Date of Birth – M/D/Y 2/20/1980	Social Security No. 215174108
School of Nursing Syracuse University	Year Graduated 2002	
Program of Nurse Anesthesia		Date Completed M/D/Y 12/22/2006
(City)	(State)	Length in months 0

Anesthesia Program Information	
Degree Awarded: <u>MS</u>	Major: <u>Nurse Anesthesia</u>
Post-Master's Certificate Awarded: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Graduate Scores on Admission to Anesthesia Program: GRE: V: <u>600</u> Q: <u>720</u> A: <u>500</u> ; MAT: _____	
Doctorate: Optional* _____; Required _____	*If Doctorate optional, was degree awarded? Yes _____ No _____

Academic Record

The minimum required hours appear in parenthesis.

	Hours
1. Professional Aspects of Nurse Anesthesia Practice (45)	0
2. Anatomy	
Physiology	
Pathophysiology	
(135)	0
3. Pharmacology of Anesthetic Agents and Adjuvant Drugs	
Chemistry	
Biochemistry	
(105)	0
4. Basic and Advanced Principles of Anesthesia Practice	
Physics	
Equipment	
Technology	
Pain Management	
(105)	0
5. Research (30)	0
6. Clinical Correlative Conferences (45)	0
Total (465)	0

As of the date of my signature below, I affirm that this transcript contains a complete and accurate record of the above-named student's academic coursework and clinical experience in the above-named accredited nurse anesthesia program. I further affirm that the student has completed all of the academic and clinical requirements necessary for completion of an accredited nurse anesthesia program.

Signature _____

Title _____

Date 12:00:00 AM

As of the date of my signature below, I have read this transcript and it is a complete and accurate record of my academic coursework and clinical experience in the above-named accredited nurse anesthesia program.

Candidate Signature _____

Date 12:00:00 AM

If this transcript is submitted prior to the date listed for completion of the program, a *Program Completion Verification Form* must also be submitted by the Program Director on or after the official completion date of the program.

Record of Clinical Experience for Graduates Enrolled After March 1, 2004

Codes: () = Minimum Required Cases [] = Preferred Number of Cases

Review the academic and clinical experience records to make sure that all information and numbers are accurate. The minimum didactic and clinical requirements must be met or the candidate will *not* be eligible to write the Certification Examination.

Candidate Name: Gregory Anderson AANA # 076594 Program Code # 0000

	Number		Number
I. Total Number of Anesthesia Cases (550)	877	VIII. Methods of Anesthesia	XX
II. Total Hours of Anesthesia Time	2301	A. General anesthesia (350)	575
III. Patient Physical Status	XX	B. Induction, maintenance, emergence	XX
A. Class I	78	1. Intravenous induction (200)	645
B. Class II	409	2. Inhalation induction [25] (10)	64
C. Class III & IV (100)	386	3. Mask management [40] (25)	46
D. Class V [5]	4	4. Laryngeal mask airways [40] (25)	106
IV. Special Cases	XX	(or similar devices)	XX
A. Geriatric 65+ years [100] (50)	211	5. Tracheal intubation	XX
B. Pediatric	XX	a. Oral (200)	405
a. 2-12 years [75] (25)	67	b. Nasal [10]	9
b. under 2 years [25] (10)	20	6. Total intravenous anesthesia [25] (10)	203
c. Neonate (under 4 weeks) [5]	2	7. Emergence from anesthesia (200)	629
C. Trauma/Emergency [50] (30)	97	C. Monitored anesthesia care [50] (25)	101
D. Ambulatory/Outpatient (100)	345	D. Regional techniques	XX
E. Obstetrical Management [40] (30)	88	1. Management (30)	160
1. Caesarean delivery [15] (10)	27	2. Administration (Total of a, b, c) (25)	113
2. Analgesia for labor [15] (10)	61	a. Spinal [50]	40
V. Position Categories	XX	b. Epidural [50]	57
A. Prone (20)	50	c. Peripheral [40]	16
B. Lithotomy (25)	113	IX. Arterial Technique	XX
C. Lateral (5)	92	A. Arterial puncture/catheter insertion (25)	64
D. Sitting (5)	24	B. Intra-arterial blood pressure monitoring (25)	97
VI. Anatomical Categories	XX	X. Central Venous Pressure Catheter	XX
A. Intra-abdominal (75)	240	A. Placement (Total of a, b) [10] (5)	24
B. Extrathoracic (15)	43	a. Actual	24
C. Extremities (50)	241	b. Simulated	0
D. Perineal (15)	83	B. Monitoring (15)	37
E. Head	XX	XI. Pulmonary Artery Catheter	XX
1. Extracranial (15)	55	A. Placement [5]	7
2. Intracranial [20] (5)	23	B. Monitoring [10]	7
3. Oropharyngeal (20)	109	XII. Other	XX
F. Intrathoracic [40] (15)	32	A. Intravenous catheter placement (100)	293
1. Heart [10] (5)	10	B. Mechanical ventilation (200)	430
2. Lung (5)	9	C. ACLS – Provide expiration date: month <u>5</u> year <u>07</u>	
3. Other	13	D. PALS – Provide expiration date: month <u>3</u> year <u>07</u>	
G. Neck [10] (5)	23	E. Pain management (acute/chronic) [10 hours]	8
H. Neuroskeletal (20)	47	F. Alternative airway management techniques	XX
I. Vascular [20] (10)	71	(Total of 1, 2) [40] (10)	119
J. Other	6	1. Fiberoptic techniques	XX
VII. Pharmacological Agents	XX	(Total of a, b, c) [15] (5)	41
A. Inhalation agents (200)	597	a. Actual placement	17
B. Intravenous induction agents (200)	704	b. Simulated placement	1
C. Intravenous agents – muscle relaxants (200)	611	c. Airway assessment	23
D. Intravenous agents – opioids (200)	922	2. Other techniques [25] (5)	78
E. Intravenous agents – other (50)	1927		



UNIVERSITY OF MARYLAND

SCHOOL OF NURSING

Professional Aspect of Nurse Anesthesia Seminar Mid-Atlantic Nurse Anesthesia Programs*

AGENDA

7:30 a.m.	Arrival and Refreshments
8:00 - 8:15	Welcome - Lou Heindel , Director Nurse Anesthesia Program, UMB
8:15 - 9:15	AANA Federal Issues Update for CRNAs - Brain Bullard, MBA, MPH AANA DC
9:15 - 10:15	Making a Difference: The Importance of CRNA Advocacy - Brain R. Bullard, MBA, MPH AANA DC
10:30 - 11:30	Medicare as a Second Language: Federal Payment Policy for CRNAs - Pamela M. Kirby, JD AANA DC
11:30 - 12:30 p.m.	LUNCH with Sponsors
12:30 - 2:30	Legal and Malpractice Issues in Anesthesia - Dean P. Cary, CRNA
2:45 - 4:00	Wellness and Peer Assistance - Diana Quinlan, CRNA, MA

****This conference was a joint effort of Georgetown University, Uniform Services University, Navy Nurse Corps and University of Maryland's Nurse Anesthesia Programs.***

Sponsored in part by:

- **Anesthesia Solutions** (Danielle Boggio)
- **Blue Ridge Anesthesia Associates** (Hagerstown Medical Center)
- **Chesapeake Perioperative Services** (Franklin Square Hospital)
- **North American Partners in Anesthesia (NAPA)**
- **Watchful Care Anesthesia Services** (Jack Hitchens, Roxane Henke, Marvin Howard)
- **R. Adams Cowley Shock Trauma Center/University of Maryland Medical System**

Thank You !!

Office of Professional Development and Continuing Education
Continuing Education and Professional Development Opportunities
2006

Your Practice Based on Evidence: April 6 and 7, 2006
Essential Skills and Competencies

Ann Cain Endowed Lectureship April 7, 2006
Old Wisdom, New Science: East Meets West in the
Practice of Integrative Psychiatric Nursing
Karen Kleeman, PhD, RN, CS

Summer Institute in Nursing Informatics: July 17 – 22, 2006
Advancing Clinical Practice Through Nursing Informatics

Educating Nurses: August 25, 2006
From Innovation to Education

Edmunds Endowed Lecture October 4, 2006
The Media's Controversial Portrayal of Nursing
and its Negative Impact on the Profession
Sandy Summers, RN, MSN, MPH

Virginia Lee Franklin Endowed Dean's Lecture November 1, 2006
Crossing the Quality Chasm: The Challenges that Lie Ahead
Janet Corrigan, MBA, PhD

School of Nursing Research Seminars

Electronic Submissions: The New Frontier January 13, 2006
Brian Hockenberry

The Nursing Research Agenda at the January 20, 2006
NIH Clinical Center
Clare Hastings, RN, PhD, FAAN

Recruiting Participants for Research and the February 10, 2006
Informed Consent Process
Kathleen Palmer, RN, CCRC

Joining Forces, Joining Voices: March 15, 2006
A Participatory Research Approach to Reducing
Health Disparities in Survivors of Intimate Violence
Nancy Glass, PhD, MPH, RN

Challenging the Paradigm of IRB Review of March 17, 2006
Multi-center Research
Marisue Cody, PhD, RN

The Epidemiology of Intimate Partner Homicide-Suicide in Maryland Cara Krulewitch, PhD, RN	March 29, 2006
Quality Management in Research Mary MacFadden, RN, BSN	April 17, 2006
Responding to a Summary Statement to Maximize Chances for Successful Funding Outcome Deborah McGuire, PhD, RN, FAAN	April 21, 2006
Responding to a Summary Statement to Maximize Chances for Successful Funding Outcome Part 2 Deborah McGuire, PhD, RN, FAAN	April 28, 2006
Building and Teaching a Gero-Psychiatric Curriculum: Challenges and Choices Elizabeth Beattie, PhD, RN, FGSA	May 9, 2006
Gestational Diabetes: Healthcare Provider Adherence to Clinical Practice Guidelines Jane Kapustin, PhD, CRNP	June 9, 2006
Moral Distress and Critical Care Nurses Debra Wiegand, PhD, RN	September 15, 2006
Workplace Violence Prevention: Center Research and Action in Three States Jane Lipscomb, PhD, RN, FAAN	October 9, 2006
Occupational Health of Nurses Alison Trinkoff, ScD, FAAN	October 27, 2006
Nurses Work 12-hour Shifts: Sleep Opportunity, Fatigue and Neurocognition Jeanne Geiger-Brown, PhD, RN	November 10, 2006
Intimate Partner Homicide and Intimate Partner Homicide-Suicide in MD Among Women of Childbearing Age Cara Krulewitch, PhD, CNM	November 13, 2006
Temperament, Caregiving, and Socio-emotional Adjustment of Irritable Infants Fatima Ramos- Marcuse, PhD, APRN, BC	December 1, 2006

Early Events in the Emergency Department for
Admitted ICU Patients on Outcomes of Hospital
Mortality and Length of Stay
Karen Clark, PhD, RN

December 15, 2006

Changes in Depression, Anxiety and Social Support
in Heart Failure Outpatients with Implantable
Cardioverter Defibrillators
Erika Friedman, PhD

December 18, 2006

Nurse Anesthesia Program

Frequently Asked Questions:

What type of work experience is required to be eligible to apply?

At least one year of acute care nursing experience is required at the time of application. We prefer experience in large, busy surgical or cardio-thoracic intensive care units.

How competitive is the application process?

The selection process for the nurse anesthesia program is very competitive. The admissions committee evaluates individuals past academic performance, work experience and letters of recommendation. In the past the program has received approximately 70 applications per year.

Can I work during this program?

The nurse anesthesia program is a full-time rigorous and demanding program. Students are enrolled in approximately 15 graduate credits per semester the first two semesters. The full-time clinical education begins the first summer and requires between 40-50 hours per week.

Are there any additional things I can do to strengthen my application?

We highly recommend that you spend several hours shadowing a CRNA in the workplace. If you need help arranging this experience please contact us. Additionally, many applicants have found it helpful to take graduate level physiology or pharmacology before entering the program. Please contact us before you enroll in these courses.

How can I get additional information?

Please contact the program at: nurseanesthesia@son.umaryland.edu or 410-706-1995. You are welcome to make an appointment with one of our faculty member to discuss your application and answer any additional questions you may have.

University of Maryland School of Nursing
**CERTIFIED REGISTERED
NURSE ANESTHETIST
PROGRAM**

offering
A MASTER OF SCIENCE
DEGREE WITH A SPECIALTY
IN NURSE ANESTHESIA

The University of Maryland School of Nursing's
Certified Registered Nurse-Anesthetist program
is accredited by the Council on Accreditation of
Nurse Anesthesia Educational Programs.

**FOR MORE INFORMATION, OR
TO APPLY FOR THE PROGRAM:**

Visit www.nursing.umaryland.edu or contact:
University of Maryland School of Nursing
Nurse Anesthesia Program
685 West Lombard Street, Room 365
Baltimore, Maryland 21201-1579
Telephone: 410-706-1995
Email: nurseanesthesia@sonumaryland.edu



**UNIVERSITY OF MARYLAND
SCHOOL OF NURSING**

685 West Lombard Street, Baltimore, MD 21201-1579



**UNIVERSITY OF MARYLAND
SCHOOL OF NURSING**



ABOUT THE PROGRAM

The University of Maryland School of Nursing's Certified Registered Nurse Anesthetist (CRNA) program is designed to prepare graduates for leadership positions in the field of nurse anesthesia and to provide anesthesia services to diverse diagnostic and surgical populations. The program is a full-time, 28-month, 72-credit course of study. In addition to the core sciences, the curriculum includes didactic content in research, health policy, and educational experiences with clinical simulation.



GENERAL ADMISSIONS REQUIREMENTS

- Baccalaureate degree with a major in nursing from a regionally-accredited college or university
- Current RN license
- Undergraduate cumulative grade point average of 3.0 or higher
- Completion of a course in Elementary Statistics or Nursing Research, and a recent course in Physical Assessment
- Two professional references

WHAT IS A CRNA?

- CRNAs administer approximately 65 percent of the 26 million anesthetics given to patients in the United States each year. They
- administer anesthesia for all types of cases, using all anesthetic techniques
 - are qualified and permitted by state law or regulations to practice in every state in the nation, and
 - provide safe, effective anesthesia services for millions of patients annually.

- Official scores on the general test of the Graduate Record Examination
- Professional resume
- Statement of goals and objectives
- Minimum of one year of critical care experience
- Current ACLS and PALS certification
- Personal interview

**University of Maryland School of Nursing
Nurse Anesthesia Program
2006
COA Required Instructional Hours**

Topic	Required Hours	Courses	Hours	Total
Pharmacology of anesthetic agents and adjuvant drugs including concepts in chemistry and biochemistry	105	NURS 723 NURS 604 NURS 615 NURS 616	45 45 5 30	125
Anatomy, physiology, and pathophysiology	135	NURS 612 NURS 623 NURS 620 NURS 613/614 NURS 615 NURS 670/675	45 20 30 15 10 20	140
Professional aspects of nurse anesthesia practice	45	NURS 642 NURS 659 NURS 670 NURS 675	15 5 15 15	50
Basic and advanced principles of anesthesia practice including physics, equipment, technology and pain management{ XE " <u>pain management</u> " }	105	NURS 613, 614, 617 NURS 615 NURS 654,672	135 20 25	180
Research	30	NURS 701	60	60
Clinical correlation conferences	45	NURS 637, 657, 673, 674 NRSG 670 NURS 675	60 15 15	90