

# Post-Master's Certificate In Nurse Anesthesia Proposal

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## **Post-Master's Certificate in Nurse Anesthesia Proposal**

### **Introduction**

The Oakland University-Beaumont Graduate Program of Nurse Anesthesia has been in existence since 1991. The results of the National Certification Examination, exit interviews, graduate and employer evaluations consistently reflect the excellence of the current program content. There have been 79 graduates of the program since it's inception, with a passing rate on the National Certification Examination for Nurse Anesthetists of 98.8%.

In the local area as well as the national level there is a current manpower shortage of Certified Registered Nurse Anesthetists (CRNA) that is projected to worsen in the next 10 years. Therefore, the program faculty recognizes the need to increase the number of applicants as well as strengthen the applicant pool from which students are admitted. In the United States there are 11 of 84 programs which offer an alternative educational pathway for Registered Nurses (RN) already holding a Masters of Science in Nursing (MSN) Degree. The administration of Oakland University-Beaumont Graduate Program of Nurse Anesthesia is proposing to institute a Post-Master's Certificate in Nurse Anesthesia. As stated in the Graduate Catalog, 1999-2001 students are unable to transfer credits that have been previously used to satisfy degree requirement at this or another institution (p.20). Repeating previously completed course work because of this policy may predispose otherwise excellent candidates to go elsewhere. This is even more restrictive in the case the student who has earned an MSN at Oakland University and now wants to enter the profession of Nurse Anesthesia and become a Certified Registered Nurse Anesthetist. Without a Post-Masters certificate option there is nothing the program can offer these students. Therefore, Oakland University MSN graduates elect to go to other program and are unable to choose to return to Oakland University since they cannot earn a second MSN from Oakland University.

Oakland University-Beaumont Graduate Program of Nurse Anesthesia will be on the forefront of offering educational options in the state of Michigan.

### **Purpose of the change:**

1. Offer an education pathway that allows MSN graduates of Oakland University and other institutions an option for preparation to enter the advanced practice role of Certified Registered Nurse Anesthetist.
2. Increase the marketability of the Oakland University-Beaumont Graduate Program of Nurse Anesthesia.
3. Attract the highest caliber of students among those RNs who have already furthered their education at the Master's level.

Areas needing improvement:

In order to help meet the manpower demands for CRNAs, the Oakland University-Beaumont Graduate Program of Nurse Anesthesia needs to increase the number of students admitted to the program. It is not acceptable to sacrifice quality in order to increase the quantity of students. Our ability to attract the highest caliber of student should include an ability to offer an educational program for the RN who already holds an MSN. With additional input from the program faculty, the following areas have been identified:

1. The student who has already earned an MSN at another institution must currently complete the entire 55-credit MSN curriculum as offered. This results in repetition of previous work already completed or if equivalency is granted additional credit hours must be taken. There are no elective courses within the program for the student to take.
2. A student who has earned their MSN (in another program) from Oakland **cannot** earn a second MSN from Oakland University. This currently prohibits an Oakland MSN graduate from even considering a return to Oakland University for the educational preparation necessary to become a CRNA.
3. There have been interested, well-qualified candidates who would have selected the Post-Masters Certificate option if it were available but instead have selected to go to other nurse anesthesia program. This option is not currently available in the State of Michigan at any of the other nurse anesthesia programs.

### **Justification**

As more RNs complete a variety of MSN degree programs they may decide to pursue an alternate advanced nursing practice specialty. The option to make a career switch within nursing may prevent the loss of nurses to other careers outside of nursing. The proposed Post-Masters Certificate in Anesthesia would accomplish the following:

1. Students already possessing an MSN would see the Post-Master's Certificate in Anesthesia and Oakland University-Beaumont Graduate Program of Nurse

Anesthesia as their number one choice for completing the educational preparation to enter the profession of Nurse Anesthesia.

2. MSN graduates of Oakland University could return to Oakland University to prepare to change to another advanced practice nursing role rather than being forced to go to another program at a different university.
3. The pool of applicants to the program would be increased and strengthened by the addition of well-qualified, already highly educated and motivated RNs with MSN degrees.
4. The increase in the number of students admitted to the program would generate additional tuition for Oakland University.
5. The Council on Accreditation, which accredits all Nurse Anesthesia educational programs, has a policy "Waiver of Graduate Degree Requirement". The policy states "A waiver of this requirement may be requested for a program when it is unable to award a Master's or higher degree to individuals who already possess graduate degree. A waiver of this requirement may also be requested for universities that offer an approved post-master's certificate" (p. W2, Accreditation Policies and Procedures, Council on Accreditation of Nurse Anesthesia Educational Programs).
6. There is no impact on the regular faculty workload of Oakland University-School of Nursing as Post-Master's Certificate students would not be enrolled in nursing foundation courses.
7. The administration of William Beaumont Hospital, Royal Oak supports the increase in the numbers of students through approval of additional stipends. The addition of another Clinical Coordinator position to the table of organization for the Department of Perioperative Education and Research Services to support the increased workload has been accomplished.

## Summary

The result of this proposal would be:

1. Institution of a Post-Master's Certificate in Nurse Anesthesia to be offered starting in January of 2002.
2. Students must meet the same admission requirements as those entering the MSN program with the exception of the GRE, which is waived per School of Nursing policy.
3. The total number of credits would be 40, which exceeds the minimum of 15 credits as specified in University policy (Approved Graduate Certificate Programs, Oakland University Graduate Council, 1995).
4. The number of ungraded (Satisfactory/unsatisfactory) graduate credits would be 7. This does exceed the number specified in the University policy regarding graduate certificate programs. However, the Council on Accreditation policy requires that "The program for nondegree-seeking students must be substantially equivalent" (p. W2, Accreditation Policies and Procedures) and the degree program contains 7 ungraded credits for clinical courses.

In conclusion, this instituting of the option for a Post-Master's Certificate in Anesthesia will increase the educational options for RNs seeking to change advanced practice roles and thereby encourage them to remain in nursing.

## **OAKLAND UNIVERSITY-BEAUMONT GRADUATE PROGRAM OF NURSE ANESTHESIA**

### **Post-Master's Certificate in Nurse Anesthesia**

#### **COURSE DESCRIPTIONS**

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**NRS 605** (Pharmacologics in N.A. Practice) 3 credits

The pharmacology of specific anesthetic agents and an introduction to basic pharmacologic principles as they apply to anesthesia administration.

Corequisite: NRS 607, BIO 501 Prerequisite: NRS 500, 540, Admission to MSN/Nurse Anesthesia Track

**NRS 607** (N. A. Clinical Internship I) 1 credit

Clinical focus will be orientation to the operating room environment, anesthesia work site, and various practice settings including university-based medical centers, major urban medical centers, community hospitals in suburban or rural settings, and practices that meet the needs of the medically underserved. Exploration of the various types of anesthesia, assessment techniques, and introduction to anesthesia equipment, basic techniques of anesthesia administration and principles of care for patients undergoing local, regional, or general anesthesia. (16-24 contact hours per week)

Corequisite: NRS 605, BIO 501 Prerequisite: NRS 500, 540, Admission to MSN/Nurse Anesthesia Program

**NRS 615** (Nurse Anesthesia Practice I) 3 credits

Coexisting disease states and their impact on anesthesia care as well as an introduction to specialty areas of anesthesia practice such as EENT, GU, GYN, neurosurgery, and orthopedics, and emergency surgical procedures are studied.

Corequisite: NRS 617, BIO 502, 503 Prerequisite: NRS 605, 607, BIO 501

**NRS 617** (N.A. Clinical Internship II) 1 credit

Clinical focus will emphasize patient safety and monitoring during administration of anesthesia. Daily anesthesia care plans will be developed. Students will have the opportunity to participate

in the perioperative care for a wide variety of patients undergoing local, regional or general anesthesia. Daily clinical evaluations as well as clinical record keeping and weekly journal review begin during this internship. (24 contact hours per week)

Corequisite: NRS 615, BIO 502, 503 Prerequisite: NRS 605, 607, BIO 501

**NRS 618** (Principles of N.A. Practice) 2 credits

Principles of chemistry and physics as they relate to anesthesia practice; basic knowledge necessary for administering a safe, physiologic anesthetic utilizing the anesthesia machine and monitoring devices.

Corequisite: NRS 625, 627, 651 Prerequisite: NRS 615, 617, BIO 502, 503

**NRS 625** (Nurse Anesthesia Practice II) 4 credits

Evaluation of strategies for the management of specialty cases including thoracic, cardiovascular, pediatrics and obstetrics.

Corequisite: NRS 618, 627, 651 Prerequisite: NRS 615, 617, BIO 502, 503

**NRS 627** (N.A. Clinical Internship III) 1 credit

Clinical focus will include anesthesia administration for patients undergoing a wide variety of surgical or therapeutic procedures requiring anesthesia care. Students will participate in all types of clinical monitoring, including hemodynamic monitoring. This data will be used in planning and in clinical decision making. (24 contact hours per week).

Corequisite: NRS 618, 625, 651 Prerequisite: NRS 615, 617, BIO 502, 503

**NRS 635** (Nurse Anesthesia Practice III) 2 credits

Advanced clinical practice with focus on the administration and care of patients requiring regional anesthesia. Pain management issues will be explored including techniques and administration of a pain management service.

Corequisite: NRS 531, 637, 652 Prerequisite: NRS 618, 625, 627, 651

**NRS 637** (N.A. Clinical Internship IV) 1 credit

Clinical focus is on providing anesthesia in clinical specialties. Clinical assignments will include rotations to affiliating agencies and to areas of specialty practice such as neuro/ENT, cardiac, vascular, thoracic, obstetrics, pediatrics, and regional anesthesia administration. Rotation sites may include the Veteran's Administration Medical Center, Grace Hospital, Genesys Regional Medical Center, Huron Memorial Hospital, Children's Hospital of Michigan, Hutzel Hospital, and Charlevoix Area Hospital as well as Beaumont's Royal Oak and Troy campus. Non-operating room anesthesia (NORA) procedures for therapeutic or diagnostic purposes will also be assigned. (32 contact hours per week)

Corequisite: NRS 531, 635, 652 Prerequisite: NRS 618, 625, 627, 651

**NRS 645** (Nurse Anesthesia Practice IV) 2 credits

Continued emphasis on advanced clinical practice with focus on respiratory and cardiac care. Pulmonary and cardiac physiology will be emphasized as well as respiratory care and respiratory equipment. Focus on the perioperative anesthetic management of patients with cardiac or respiratory disorders and clinical decision making.

Corequisite: NRS 647 Prerequisite: NRS 635, 637, 652

**NRS 647** (N.A. Clinical Internship V) 1 credit

Clinical focus on the perioperative care and administration of anesthesia to patients undergoing all types of surgery, utilizing all types of anesthetic techniques in a variety of clinical settings. Specialty and affiliation rotations continue. Weekly seminars exploring the history, practice standards, ethical considerations, employment and reimbursement issues that impact the professional nurse anesthetist. (32-40 contact hours per week)

Corequisite: NRS 645 Prerequisite: NRS 635, 637, 652

**NRS 651** (Pharmacology:Nurse Anesthesia I) 3 credits

General principles of pharmacology, including pharmacokinetics and pharmacodynamics. Specific classifications of drugs, beginning with those that exert their effects on the neurohumoral system.

Corequisite: NRS 618, 625, 627 Prerequisite: NRS 615, 617, BIO 502, 503

**NRS 652** (Pharmacology:Nurse Anesthesia II) 3 credits

Focus on drugs affecting the central nervous system, the heart, and the renal system as well as local and general anesthetics, non-steroidal anti-inflammatory agents, steroids and antihistamines.

Corequisite: NRS 531, 635, 637 Prerequisite: NRS 618, 625, 627, 651

**NRS 657** (N.A. Clinical Internship VI) 1 credit

Clinical focus on the perioperative care and administration of anesthesia to patients undergoing all types of surgery, utilizing all types of anesthetic techniques in a variety of clinical settings. Specialty and affiliation rotations continue. (32-40 contact hours per week)

Corequisite: NRS 643, 686 Prerequisite: NRS 645, 647

**NRS 667** (N.A. Clinical Internship VII) 1 credit

Clinical focus will be on developing the ability to work independently and to participate in the full range of perianesthetic care, including preanesthetic assessment and preparation, teaching, planning, administration, pain management, postanesthesia care and follow-up. (32-40 contact hours per week)

Corequisite: NRS 610, 687 Prerequisite: NRS 657

## **Course Syllabi**

**COURSE NUMBER: NRS 607 CREDIT ALLOCATION: 1 cr**

**COURSE TITLE: N.A. CLINICAL INTERNSHIP I**

**FACULTY ON RECORD: Therese Pilchak, CRNA, MS**

**PREREQUISITES:** Admission to the Nurse Anesthesia Track of the MSN program, NRS 500

**COREQUISITES:** NRS 605, NRS 521, BIO 501.

### **COURSE OVERVIEW:**

The student will receive an orientation to the operating room environment, anesthesia work site, and various practice settings where anesthesia care is rendered, including university-based medical centers, urban medical centers, community hospitals in suburban or rural settings, and practices that meet the needs of the medically underserved. Instruction on clinical activities including interview techniques, chart review, physical assessment, documentation, post anesthesia care and post-anesthesia follow-up, philosophy and ethical considerations in anesthesia practice and introduction to anesthesia equipment and monitoring.

Teaching methods for this initial clinical course will include lecture and discussion, demonstration, computer simulation exercises, case reviews, and clinical practice.

### **COURSE OBJECTIVES:**

1. Incorporate concepts and theories from nursing and other related disciplines into advanced nursing practice.
2. Participate in scientific inquiry to validate or contribute knowledge relevant to nurse anesthesia practice.
3. Demonstrate a professional philosophy that values the individual, is committed to delivering high quality health care, and seeks to advance the nursing profession.

### **COURSE REQUIREMENTS:**

1. preparatory reading based on weekly topical outline
2. regular class attendance
3. participation in class discussions

### **TOPICAL OUTLINE:**

1. Anesthesia- theories, types, providers, practice settings, care plans
2. Preoperative Physical Assessment
3. Continuous quality improvement
4. Basic EKG identification
5. Operating Room-occupational hazards, patient flow, patient positioning, universal and aseptic techniques
6. Anesthesia workroom, anesthesia cart contents
7. Anesthesia equipment- types, function, preparation
8. Patient monitoring techniques and equipment

9. Care of the patient in the post-anesthesia care unit.
10. Airway management-equipment and techniques
11. Anesthesia management-induction, maintenance, and emergence.

**ACADEMIC CONDUCT:**

Students are expected to practice and uphold standards of academic integrity and honesty as outlined in the Oakland University undergraduate and graduate catalogs under the section titled, "Academic Conduct". Academic dishonesty may result in a numerical grade of 0.0 for this course.

In addition to the Oakland University Academic Conduct Policy in the School of Nursing, completion of all course related assignments must be the result of the student's individual effort, except in the circumstance where the assignment requires group effort.

**AMERICANS WITH DISABILITIES ACT (1990)**

Students with special needs are urged to identify themselves to the faculty and discuss their concerns. Additional help can be obtained through the Office of Disability Support Services, 157 North Foundation Hall.

**EVALUATION TECHNIQUE:**

"All students are directed to student handbooks for School of Nursing Policies and Procedures for Progress, Retention and Dismissal and Grade Conversion Scale." This includes the Student Handbook for the Nurse Anesthesia Program.

In order to earn a satisfactory grade for this course, the following criteria must be met:

1. An **average** grade of 80% or better on a midterm and final exam.
2. Completion of clinical activity check lists.

The instructor reserves the right to make changes in the criteria and administer quizzes or additional assignments.

**Failure to earn a satisfactory grade in NRS 607 will result in dismissal from the nurse anesthesia program.**

**COURSE NUMBER: NRS 617 CREDIT ALLOCATION: 1 cr**

**COURSE TITLE: N.A. CLINICAL INTERNSHIP II**

**FACULTY ON RECORD: Lynn L. Lebeck, CRNA, MS**

**PREREQUISITE: NRS 605, 607, BIO 501**

**COREQUISITES: NRS 615, BIO 502, 503**

**COURSE OVERVIEW:**

Clinical activities will emphasize patient safety and monitoring. Daily anesthesia care plans will be developed. Students will be exposed to and have opportunity to participate in the

perioperative care for a wide variety of patients undergoing local, regional or general anesthesia. Daily clinical evaluations as well as clinical record keeping and weekly journal review begin during this internship. (24 contact hours per week)

### **COURSE OBJECTIVES:**

In addition to the objectives in previous clinical internships the student will:

1. Incorporate concepts and theories from nursing and other related disciplines into advanced nursing practice in the performance of thorough and complete preanesthetic assessments and formulation of patient specific anesthesia care plans.
2. Exercise clinical judgement in the implementation of the planned anesthesia care and appropriate adjustments necessary based on the patient's response.
3. Monitor patient's physiologic condition consistent with the type of anesthetic and patient needs.
4. Vigilance shall be maintained for untoward identifiable reactions.
5. Participate in the continuous quality improvement process by performing post-anesthetic evaluations.
6. Implements appropriate safety precautions to minimize risks.
7. Exemplify collegially and contribute to professional development through participation in journal club and cases analysis in morning report.

### **ACADEMIC CONDUCT:**

Students are expected to practice and uphold standards of academic integrity and honesty as outlined in the Oakland University undergraduate and graduate catalogs under the section titled, "Academic Conduct". Academic dishonesty may result in a numerical grade of 0.0 for this course.

In addition to the Oakland University Academic Conduct Policy in the School of Nursing, completion of all course related assignments must be the result of the student's individual effort, except in the circumstance where the assignment requires group effort.

### **AMERICANS WITH DISABILITIES ACT (1990)**

Students with special needs are urged to identify themselves to the faculty and discuss their concerns. Additional help can be obtained through the Office of Disability Support Services, 157 North Foundation Hall.

### **COURSE REQUIREMENTS:**

1. regular clinical attendance
2. analysis and presentation of journal articles as scheduled
3. participation in class discussions and morning reports

### **EVALUATION TECHNIQUE:**

"All students are directed to student handbooks for School of Nursing Policies and Procedures for Progress, Retention and Dismissal and Grade Conversion Scale." This includes the Student Handbook for the Nurse Anesthesia Program.

Daily evaluations of student performance are completed by the clinical CRNA faculty (See Appendix A- Evaluation of Clinical Performance, Clinical Internship II) Written care plans are reviewed by clinical and program faculty for content, clarity, and coverage of anesthesia care.

In order to earn a satisfactory grade for this course, the following criteria must be met:

1. The student must meet the clinical performance objectives outlined for Clinical Internship II (See Appendix A)
2. At least 90% of all daily evaluations do not contain a scale score of 1, which is indicative of unsatisfactory performance, which may be unsafe or harmful to patients.

If significant difficulties in clinical performance arise during the semester, the faculty and student meet to review and determine action to be taken at that time. This may include the use of clinical probation (See anesthesia student handbook for details). If a student is on clinical probation at end of the semester, a grade of incomplete will be entered until the end of the clinical probation.

**Failure to earn a satisfactory grade in NRS 617 will result in dismissal from the nurse anesthesia program.**

**COURSE NUMBER:** NRS 627 **CREDIT ALLOCATION:** 1 cr

**COURSE TITLE:** N.A. CLINICAL INTERNSHIP III

**FACULTY ON RECORD:** Lynn L. Lebeck, CRNA, MS

**PREREQUISITE:** NRS 615, 617, BIO 502, 503

**COREQUISITES:** NRS 618, 625, 651

**COURSE OVERVIEW:**

Students will complete an orientation to all types of clinical monitoring, including hemodynamic monitoring. This data will be used in planning and in clinical decision making. Daily clinical assignments will include caring for patients undergoing a wide variety of surgical or therapeutic procedures requiring anesthesia care. (24 contact hours per week).

**COURSE OBJECTIVES:**

In addition to objectives from previous clinical internships, the student will:

1. Incorporate concepts and theories from nursing and related disciplines into advanced nursing practice during the performance of assessment, review of patient history and systems, determination of appropriate pharmacological options for induction, maintenance, and emergence of anesthesia.
2. Incorporate principles of appropriate anesthesia care for specific populations including neonates, pediatrics, parturients, and others.
3. Demonstrate the ability to assemble, check, calibrate, and utilize invasive monitoring equipment.

4. Incorporate information from intraoperative monitors to recognize, correlate, and respond to patient physiologic conditions.
5. Exemplify in practice the AANA Standards for Nurse Anesthesia Practice.
6. Participate in professional development in presenting cases and leading discussions at morning report, journal club, and Morbidity and Mortality conferences.

**ACADEMIC CONDUCT:**

Students are expected to practice and uphold standards of academic integrity and honesty as outlined in the Oakland University undergraduate and graduate catalogs under the section titled, "Academic Conduct". Academic dishonesty may result in a numerical grade of 0.0 for this course.

In addition to the Oakland University Academic Conduct Policy in the School of Nursing, completion of all course related assignments must be the result of the student's individual effort, except in the circumstance where the assignment requires group effort.

**AMERICANS WITH DISABILITIES ACT (1990)**

Students with special needs are urged to identify themselves to the faculty and discuss their concerns. Additional help can be obtained through the Office of Disability Support Services, 157 North Foundation Hall.

**COURSE REQUIREMENTS:**

1. regular attendance
2. analysis and presentation of journal articles as scheduled
3. Participation in class discussions, morning reports, and Morbidity and Mortality conferences.

**EVALUATION TECHNIQUE:**

"All students are directed to student handbooks for School of Nursing Policies and Procedures for Progress, Retention and Dismissal and Grade Conversion Scale." This includes the Student Handbook for the Nurse Anesthesia Program.

Daily evaluations of student performance are completed by the clinical CRNA faculty (See Appendix A- Evaluation of Clinical Performance, Clinical Internship III-IV) Written care plans are reviewed by clinical and program faculty for content, clarity, and coverage of anesthesia care.

In order to earn a satisfactory grade for this course, the following criteria must be met:

1. The student must meet the clinical performance objectives outlined for Clinical Internship III (See Appendix A)
2. At least 90% of all daily evaluations do not contain a scale score of 1, which is indicative of unsatisfactory performance, which may be unsafe or harmful to patients.

If significant difficulties in clinical performance arise during the semester, the faculty and student meet to review and determine action to be taken at that time. This may include the use of clinical probation (See anesthesia student handbook for details). If a student is on clinical probation at end of the semester, a grade of incomplete will be entered until the end of the clinical probation.

**Failure to earn a satisfactory grade in NRS 627 will result in dismissal from the Nurse Anesthesia Program.**

**COURSE NUMBER:** NRS 637 **CREDIT ALLOCATION:** 1 cr

**COURSE TITLE:** N.A. CLINICAL INTERNSHIP IV

**FACULTY ON RECORD:** Lynn L. Lebeck, CRNA, MS

**PREREQUISITE:** NRS 618, 625, 627, 651

**COREQUISITES:** NRS 531, 635, 652

**COURSE OVERVIEW:**

Clinical assignments will include rotations to affiliating agencies and to areas of specialty practice such as neuro/ENT, cardiac, vascular, thoracic, obstetrics, pediatrics, and regional anesthesia administration. Rotation sites may include the Veteran's Administration Medical Center, Grace Hospital, Genesys Regional Medical Center, Huron Memorial Hospital, Children's Hospital of Michigan, Hutzel Hospital, and Charlevoix Area Hospital as well as Beaumont's Royal Oak and Troy campus. Non-operating room anesthesia (NORA) procedures for therapeutic or diagnostic purposes will also be assigned. (32 contact hours per week)

**COURSE OBJECTIVES:**

In addition to objectives from previous clinical internships, the student will:

1. Incorporate concepts and theories and related disciplines into advanced nursing practice in the performance of rapid, accurate assessment of patient status, identification of abnormal pathology and implications for anesthesia care.
2. Exercise clinical judgement in the provision of advanced nursing care to vulnerable populations with complex health problems undergoing procedures requiring anesthesia.
3. Determine and administer appropriate methods and dosages of regional anesthetics.
4. Maintain vigilance for signs and symptoms of changing patient status and appropriate corrective actions instituted.

**ACADEMIC CONDUCT:**

Students are expected to practice and uphold standards of academic integrity and honesty as outlined in the Oakland University undergraduate and graduate catalogs under the section titled, "Academic Conduct". Academic dishonesty may result in a numerical grade of 0.0 for this course.

In addition to the Oakland University Academic Conduct Policy in the School of Nursing, completion of all course related assignments must be the result of the student's individual effort, except in the circumstance where the assignment requires group effort.

### **AMERICANS WITH DISABILITIES ACT (1990)**

Students with special needs are urged to identify themselves to the faculty and discuss their concerns. Additional help can be obtained through the Office of Disability Support Services, 157 North Foundation Hall.

### **COURSE REQUIREMENTS:**

1. Regular clinical attendance
2. Analysis and presentation of journal articles as scheduled
3. Participation in class discussions and morning reports
4. Preparation, presentation, and discussion of Morbidity and Mortality conference topics as scheduled.

### **EVALUATION TECHNIQUE:**

"All students are directed to student handbooks for School of Nursing Policies and Procedures for Progress, Retention and Dismissal and Grade Conversion Scale." This includes the Student Handbook for the Nurse Anesthesia Program.

Daily evaluations of student performance are completed by the clinical CRNA faculty (See Appendix A- Evaluation of Clinical Performance, Clinical Internship III-IV) Written care plans are reviewed by clinical and program faculty for content, clarity, and coverage of anesthesia care.

In order to earn a satisfactory grade for this course, the following criteria must be met:

1. The student must meet the clinical performance objectives outlined for Clinical Internship IV (See Appendix A)
2. At least 90% of all daily evaluations do not contain a scale score of 1, which is indicative of unsatisfactory performance, which may be unsafe or harmful to patients.

If significant difficulties in clinical performance arise during the semester, the faculty and student meet to review and determine action to be taken at that time. This may include the use of clinical probation (See anesthesia student handbook for details). If a student is on clinical probation at end of the semester, a grade of incomplete will be entered until the end of the clinical probation.

**Failure to earn a satisfactory grade in NRS 637 will result in dismissal from the Nurse Anesthesia Program.**

**COURSE NUMBER:** NRS 647 **CREDIT ALLOCATION:** 1 cr

**COURSE TITLE:** N.A. CLINICAL INTERNSHIP V

**FACULTY ON RECORD:** Lynn L. Lebeck, CRNA, MS

**PREREQUISITE:** NRS 635, 637, 652

**COREQUISITES:** NRS 645

**COURSE OVERVIEW:**

This course will focus on the perioperative care of patients undergoing all types of surgery, utilizing all types of anesthetic techniques in a variety of clinical settings. Specialty and affiliation rotations continue. Participation in the assessment, treatment and evaluation of patients with respiratory disorders. Weekly seminars that explore the history, practice standards, ethical considerations, employment and reimbursement issues that impact the professional nurse anesthetist. (32-40 contact hours per week)

**COURSE OBJECTIVES:**

In addition to the objectives from previous clinical internships, the student will:

1. Incorporate concepts and theories from nursing and related disciplines in the practice of nurse anesthesia.
2. Develop comprehensive, safe anesthesia care plans for a variety of patients.
3. Demonstrate competency in administration of regional anesthetics.
4. Demonstrate sound clinical judgement in prioritizing anesthetic interventions.
5. Determine the need for diagnostic studies, preoperative medications, and appropriate anesthesia interventions in the patient with respiratory disorders.
6. Exemplify collegiality and contribute to personal professional development in preparation and presentations on selected professional topics.

**ACADEMIC CONDUCT:**

Students are expected to practice and uphold standards of academic integrity and honesty as outlined in the Oakland University undergraduate and graduate catalogs under the section titled, "Academic Conduct". Academic dishonesty may result in a numerical grade of 0.0 for this course.

In addition to the Oakland University Academic Conduct Policy in the School of Nursing, completion of all course related assignments must be the result of the student's individual effort, except in the circumstance where the assignment requires group effort.

**AMERICANS WITH DISABILITIES ACT (1990)**

Students with special needs are urged to identify themselves to the faculty and discuss their concerns. Additional help can be obtained through the Office of Disability Support Services, 157 North Foundation Hall.

**COURSE REQUIREMENTS:**

1. Regular clinical attendance
2. Analysis and presentation of journal articles as scheduled

3. Analysis and presentation of assigned professional topics in nurse anesthesia.
4. Participation in class discussions and morning reports, and conferences

**EVALUATION TECHNIQUE:**

"All students are directed to student handbooks for School of Nursing Policies and Procedures for Progress, Retention and Dismissal and Grade Conversion Scale." This includes the Student Handbook for the Nurse Anesthesia Program.

Daily evaluations of student performance are completed by the clinical CRNA faculty (See Appendix A- Evaluation of Clinical Performance, Clinical Internship V-VII) Written care plans are reviewed by clinical and program faculty for content, clarity, and coverage of anesthesia care.

In order to earn a satisfactory grade for this course, the following criteria must be met:

1. The student must meet the clinical performance objectives outlined for Clinical Internship V (See Appendix A)
2. At least 90% of all daily evaluations do not contain a scale score of 1, which is indicative of unsatisfactory performance, which may be unsafe or harmful to patients.

If significant difficulties in clinical performance arise during the semester, the faculty and student meet to review and determine action to be taken at that time. This may include the use of clinical probation (See anesthesia student handbook for details). If a student is on clinical probation at end of the semester, a grade of incomplete will be entered until the end of the clinical probation.

**Failure to earn a satisfactory grade in NRS 647 will result in dismissal from the Nurse Anesthesia Program.**

**COURSE NUMBER:** NRS 657 **CREDIT ALLOCATION:** 1 cr

**COURSE TITLE:** N.A. CLINICAL INTERNSHIP VI

**FACULTY ON RECORD:** Lynn L. Lebeck, CRNA, MS

**PREREQUISITE:** NRS 645, 647

**COREQUISITES:** NRS 643, 686

**COURSE OVERVIEW:**

Clinical activities will continue to focus on the perioperative care of patients undergoing all types of surgery, utilizing all types of anesthetic techniques in a variety of clinical settings. Specialty and affiliation rotations continue. (32-40 contact hours per week)

**COURSE OBJECTIVES:**

In addition to the objectives from previous clinical courses, the student will:

1. Incorporate concepts from nursing and related disciplines into nurse anesthesia practice in demonstrating proficiency in obtaining a comprehensive health history and determining need for preanesthetic interventions and/or consults with other health care professionals.
2. Demonstrate skill in implementing the anesthesia plan and determination of need for adjustments as the patient condition or surgical intervention may require.
3. Identify the need for intraoperative diagnostic tests and initiate appropriate interventions.
4. Determine needs for continuation of advance monitoring and skillfully transfer patients requiring complex monitoring to post-operative setting.
5. Utilize research concepts to evaluate trends and developments in anesthesia practice.
6. Implement an appropriate research study.

### **ACADEMIC CONDUCT:**

Students are expected to practice and uphold standards of academic integrity and honesty as outlined in the Oakland University undergraduate and graduate catalogs under the section titled, "Academic Conduct". Academic dishonesty may result in a numerical grade of 0.0 for this course.

In addition to the Oakland University Academic Conduct Policy in the School of Nursing, completion of all course related assignments must be the result of the student's individual effort, except in the circumstance where the assignment requires group effort.

### **AMERICANS WITH DISABILITIES ACT (1990)**

Students with special needs are urged to identify themselves to the faculty and discuss their concerns. Additional help can be obtained through the Office of Disability Support Services, 157 North Foundation Hall.

### **COURSE REQUIREMENTS:**

1. Regular clinical attendance
2. Analysis and presentation of journal articles as scheduled
3. Participation in morning reports and other conferences

### **EVALUATION TECHNIQUE:**

"All students are directed to student handbooks for School of Nursing Policies and Procedures for Progress, Retention and Dismissal and Grade Conversion Scale." This includes the Student Handbook for the Nurse Anesthesia Program.

Daily evaluations of student performance are completed by the clinical CRNA faculty (See Appendix A- Evaluation of Clinical Performance, Clinical Internship V-VII) Written care plans are reviewed by clinical and program faculty for content, clarity, and coverage of anesthesia care.

In order to earn a satisfactory grade for this course, the following criteria must be met:

1. The student must meet the clinical performance objectives outlined for Clinical Internship VI (See Appendix A)
2. At least 90% of all daily evaluations do not contain a scale score of 1, which is indicative of unsatisfactory performance, which may be unsafe or harmful to patients.

If significant difficulties in clinical performance arise during the semester, the faculty and student meet to review and determine action to be taken at that time. This may include the use of clinical probation (See anesthesia student handbook for details). If a student is on clinical probation at end of the semester, a grade of incomplete will be entered until the end of the clinical probation.

**Failure to earn a satisfactory grade in NRS 657 will result in dismissal from the Nurse Anesthesia Program.**

**COURSE NUMBER:** NRS 667 **CREDIT ALLOCATION:** 1 cr

**COURSE TITLE:** N.A. CLINICAL INTERNSHIP VII

**FACULTY OF RECORD:** Lynn L. Lebeck, CRNA, MS

**PREREQUISITE:** NRS 657

**COREQUISITES:** NRS 610, 687

**COURSE OVERVIEW:**

Emphasis during this course will be on developing the ability to work independently and to participate in the full range of perianesthetic care, including preanesthetic assessment and preparation, teaching, planning, administration, pain management, postanesthesia care and follow-up. (32-40 contact hours per week)

**COURSE OBJECTIVES:**

In addition to objectives from previous clinical internships, the student will:

1. Complete through preanesthetic evaluations including emergency situations.
2. Implement and manage the entire anesthesia process.
3. Collaborate with patients, significant others (of patients), and health care team members.
4. Participate in a continual process of self-evaluation and demonstrate excellence in anesthesia practice.
5. Contribute to professional development through completion of a research project and presentation of the results.

**ACADEMIC CONDUCT:**

Students are expected to practice and uphold standards of academic integrity and honesty as outlined in the Oakland University undergraduate and graduate catalogs under the section titled, "Academic Conduct". Academic dishonesty may result in a numerical grade of 0.0 for this course.

In addition to the Oakland University Academic Conduct Policy in the School of Nursing, completion of all course related assignments must be the result of the student's individual effort, except in the circumstance where the assignment requires group effort.

### **AMERICANS WITH DISABILITIES ACT (1990)**

Students with special needs are urged to identify themselves to the faculty and discuss their concerns. Additional help can be obtained through the Office of Disability Support Services, 157 North Foundation Hall.

### **COURSE REQUIREMENTS:**

1. Regular clinical attendance
2. Analysis and presentation of journal articles and Morbidity and Mortality topics.
3. Participation in class discussions and morning reports
4. Completion of an approved research project.

### **EVALUATION TECHNIQUE:**

"All students are directed to student handbooks for School of Nursing Policies and Procedures for Progress, Retention and Dismissal and Grade Conversion Scale." This includes the Student Handbook for the Nurse Anesthesia Program.

Daily evaluations of student performance are completed by the clinical CRNA faculty (See Appendix A- Evaluation of Clinical Performance, Clinical Internship V-VII) Written care plans are reviewed by clinical and program faculty for content, clarity, and coverage of anesthesia care.

In order to earn a satisfactory grade for this course, the following criteria must be met:

1. The student must meet the clinical performance objectives outlined for Clinical Internship VII (See Appendix A)
2. At least 90% of all daily evaluations do not contain a scale score of 1, which is indicative of unsatisfactory performance, which may be unsafe or harmful to patients.

If significant difficulties in clinical performance arise during the semester, the faculty and student meet to review and determine action to be taken at that time. This may include the use of clinical probation (See anesthesia student handbook for details). If a student is on clinical probation at end of the semester, a grade of incomplete will be entered until the end of the clinical probation.

**Failure to earn a satisfactory grade in NRS 667 will result in dismissal from the Nurse Anesthesia Program.**

**COURSE NUMBER NRS 635 CREDIT ALLOCATION: 1  
COURSE TITLE: NURSE ANESTHESIA PRACTICE III**

**FACULTY OF RECORD: Lisa Mileto, CRNA, MS**

PREREQUISITIES: NRS 618, 625, 627, 651

COREQUISITIES: NRS 531, 637, 652

**COURSE OVERVIEW:**

This course addresses advanced concepts of nurse anesthesia practice in regional anesthesia. This will include a comprehensive course on regional anesthesia techniques and management as well as emphasis on acute and chronic pain management. The role of the CRNA in the specialized areas of acute and chronic pain management will be discussed. Teaching methods will include demonstration, lecture, case study, clinical laboratory, audio-visual and critique.

**COURSE OBJECTIVES:**

Within the context of nurse anesthesia practice, students will:

1. Use the nursing process to design a plan of care for patients receiving regional anesthesia in the perioperative setting.
2. Synthesize interdisciplinary knowledge concerning the human response to pain while planning anesthesia care and integrate with plans for post-operative nursing care to control and/or alleviate pain.

**RECOMMENDED TEXT BOOKS:**

See Appendix A

**COURSE REQUIREMENTS:**

1. Students are expected to come to class prepared and participate in class discussion.
2. Quizzes, examinations, written assignments and oral presentations.

**COURSE EVALUATION:**

"All students are directed to student handbooks for School of Nursing Policies and Procedures for Progress, Retention and Dismissal and Grade Conversion Scale." This includes the Student Handbook for the Nurse Anesthesia Program.

Exam 1 50%

Exam 2 50%

The instructor reserves the right to changes this weighing scheme and to administer quizzes or additional assignments at random.

**ACADEMIC CONDUCT:**

Students are expected to practice and uphold standards of academic integrity and honesty as outlined in the Oakland University undergraduate and graduate catalogs under the section titled, "Academic Conduct". Academic dishonesty may result in a numerical grade of 0.0 for this course.

In addition to the Oakland University Academic Conduct Policy in the School of Nursing, completion of all course related assignments must be the result of the student's individual effort, except in the circumstance where the assignment requires group effort.

## **AMERICANS WITH DISABILITIES ACT (1990)**

Students with special needs are urged to identify themselves to the faculty and discuss their concerns. Additional help can be obtained through the Office of Disability Support Services, 157 North Foundation Hall.

### **TOPICAL OUTLINE:**

1. Introduction to Regional Anesthesia, review of pain pathways, review pharmacology
2. of local anesthetics.
3. Subarachnoid Block Anesthesia, Nurse anesthesia implications for perioperative care of the patient.
4. Epidural and Caudal Anesthesia, Nurse anesthesia implications for perioperative care of the patient.
5. Brachial Plexus Blocks, Peripheral Nerve Blocks of the Upper Extremities, Nurse anesthesia implications for perioperative care of the patient.
6. Blocks of the Head and Neck, Thorax and Abdomen, Lower Extremities, Nurse anesthesia implications for perioperative care of the patient.
7. Nurse anesthesia care of the patient experiencing pain.

### **Appendix A:General Reference List**

- Courins, M. (1988). Neural Blockade in Clinical Anesthesia and Management of Pain. (2<sup>nd</sup> Ed.) Philadelphia: J.B. Lippincott Company.
- Darovic, G. (1995). Hemodynamic Monitoring: Invasive and Noninvasive Clinical Application. (2<sup>nd</sup> Ed.). Philadelphia: W.B. Saunders Company.
- Hamill, R., Rowlingson, J. (1994). Handbook of Critical Care Pain Management. New York: McGraw-Hill, Inc.
- Katz, J. (1985). Atlas of Regional Anesthesia. (First Ed.). Norwalk, Connecticut: Appleton-Century-Crofts.
- Raj, P., Nolet, H., Stanton-Hicks, M. (1988). Illustrated Manual of Regional Anesthesia. New York: Springer-Verlag.
- Rogers, M., Tinker, J., Covino, B., Longnecker, D. (1993). Principles and Practice of Anesthesiology. St. Louis: Mosby Year Book.
- Waldman, S., Winnie, A. (1996). Interventional Pain Management. Philadelphia: W.B. Saunders Company.

**COURSE NUMBER NRS 645 CREDIT ALLOCATION: 2**

**COURSE TITLE: NURSE ANESTHESIA PRACTICE IV**

**FACULTY OF RECORD: Lisa Mileto, CRNA, MS**

**PREREQUISITES: NRS 635, 637, 652**

**COREQUISITES: NRS 647**

### **COURSE OVERVIEW:**

Continued emphasis on advanced clinical practice with focus on respiratory care and 12-lead ECG interpretation. Pulmonary and cardiac physiology will be reviewed as well as respiratory

care and respiratory equipment. Focus on the perioperative management of patients with cardiac or respiratory disorders and clinical decision making.

Clinical application of respiratory care will be emphasized as it relates to the anesthetic process. This will include information on the mechanics of breathing, acid-base balance, oxygen therapy, mechanical ventilation, acute and chronic forms of respiratory failure, and a complete overview of respiratory monitoring and care as it relates to the critically ill patient. The role of the CRNA in managing acute and chronic respiratory care problems will be explored. Teaching methods will include demonstration, lecture, case study, clinical laboratory, audio-visual and critique.

**COURSE OBJECTIVES:**

Within the context of nurse anesthesia practice, students will:

1. Use the nursing process to design a plan of care for patients with complex respiratory problems in perioperative and critical care settings.
2. Use the nursing process to design a plan of care for patients with complex cardiac problems in perioperative and critical care settings.

**RECOMMENDED TEXT BOOKS:**

Levitzky, M. (1991) Pulmonary Physiology. (3<sup>rd</sup> Ed.) New York: McGraw-Hill.

Martin, L. (1992) All You Really Need to Know to Interpret Arterial Blood Gases. Philadelphia: Lea & Febiger.

\*Miller, R. (1999). Anesthesia: Volume I and II. (4<sup>th</sup> Ed.) New York: Churchill-Livingstone.

\*West, John B. (1992). Pulmonary Pathophysiology – The Essentials. (4<sup>th</sup> Ed.) Williams and Wilkins.

\*West, John B. (1990). Respiratory Physiology – The Essentials. (4<sup>th</sup> Ed.) Williams and Wilkins.

\*Previously recommended for NRS 605 or BIO 501.

General Reference List: See Appendix b

**COURSE REQUIREMENTS:**

1. Students are expected to come to class prepared and participate in class discussion.
2. Quizzes, examinations, written assignments and oral presentations.

**COURSE EVALUATION:**

Presentation/Case Study Critique

and Paper 25%

Exam 1 30%

Exam 2 45%

The instructor reserves the right to change this weighing scheme and to administer quizzes or additional assignments at random.

**ACADEMIC CONDUCT:**

Students are expected to practice and uphold standards of academic integrity and honesty as outlined in the Oakland University undergraduate and graduate catalogs under the section titled, "Academic Conduct". Academic dishonesty may result in a numerical grade of 0.0 for this course.

In addition to the Oakland University Academic Conduct Policy in the School of Nursing, completion of all course related assignments must be the result of the student's individual effort, except in the circumstance where the assignment requires group effort.

**AMERICANS WITH DISABILITIES ACT (1990)**

Students with special needs are urged to identify themselves to the faculty and discuss their concerns. Additional help can be obtained through the Office of Disability Support Services, 157 North Foundation Hall.

**TOPICAL OUTLINE:**

1. Lung structure and function, neurologic control of ventilation, non-respiratory lung functions and their implications for nurse anesthesia practice.
2. Diffusion of gases, O<sub>2</sub> and CO<sub>2</sub> transport and delivery in the critically ill patient, and their implications for nurse anesthesia practice.
3. The mechanics of breathing.
4. Alveolar ventilation, blood flow to the lungs, V/Q relationships and their implications for nurse anesthesia practice.
5. Routine and specialized pulmonary function testing, implications for nurse anesthesia care in the peri- operative period.
6. Interpretation of blood gas measurements, implications for nurse anesthesia care in the perioperative period.
7. Interpretation of blood gas measurements (continued).
8. Mechanisms of hypoxia, oxygen therapy, mechanical ventilation, and the implications for nurse anesthesia care.

Topical outline is subject to change.

**Appendix A****INSTRUCTIONS FOR GROUP PRESENTATION**

The purpose of this project is to lead a group discussion and present current information on the assigned topic. Use of handouts and audiovisual is encouraged. To facilitate group discussion, you will prepare a minimum of 5 open-ended questions that will generate discussion throughout the presentation, and 4 learning objectives. One week prior to your assigned presentation date, the group will meet with the instructor to discuss their topical outline and review the discussion questions and assigned readings. Assigned readings and learning objectives are to be distributed to the class one week in advance.

Each group will be assigned several of the pulmonary disease states listed below. Be sure to include pertinent anatomy, pathophysiology, appropriate therapy and pharmacology. The focus is on anesthetic implications for case management throughout the perioperative period. Apply concepts learned throughout this course: pulmonary mechanics, PFTs, ABGs, O<sub>2</sub> therapy, etc. You may create a case study or use actual case examples, if available. Remember that group discussion is essential.

Self-evaluation and peer evaluations are an integral part of this course. Each student will evaluate their individual performance as well as evaluating other presenters.

Submit a 3-page paper (APA format) with references.

Interstitial lung disease  
Pulmonary fibrosis  
Collagen vascular disease – RA, SLE, scleroderma  
Sarcoidosis  
Asbestosis  
Silicosis  
Pulmonary circulatory disorders  
Pulmonary hypertension  
COR pulmonale  
Thromboembolic disease  
Disease of the airways  
Upper airway obstruction  
COPD  
Asthma  
CF  
Neoplastic disease  
Lung cancer – pharmacology and radiation pneumonitis  
Pulmonary nodules  
Disorders of the mediastinum  
Pleural disease  
Pleural effusions  
Pneumothorax  
Pulmonary infections  
Pneumonias  
AIDS  
TB  
Miscellaneous disorders  
Cardiogenic and noncardiogenic pulmonary edema  
ARDS  
O<sub>2</sub> toxicity  
Smoke/toxic fume inhalation  
BPD, PIE, HMD

## **Appendix B**

## General Reference List

- Burton, G., Hodgkin, J., Ward, J. (1991). *Respiratory Care: A Guide to Clinical Practice*. (3<sup>rd</sup> Ed.). Philadelphia: J. B. Lippincott Company.
- Darovic, G. (1995). *Hemodynamic Monitoring: Invasive and Noninvasive Clinical Application*. (2<sup>nd</sup> Ed.). Philadelphia: W.B. Saunders Company.
- McPherson, S. (1990). *Respiratory Therapy Equipment*. (4<sup>th</sup> Ed.). St. Louis: C.V. Mosby Co.
- Nunn, J. (1993). *Nunn's Applied Respiratory Physiology*. (4<sup>th</sup> Ed.). Cambridge, Butterworth, Heinemann.
- Rogers, M., Tinker, J., Covino, B., Longnecker, D. (1993). *Principles and Practice of Anesthesiology*. St. Louis: Mosby Year Book.
- Shapiro, B., Kacmarek, R., Cane, R., Peruzzi, W., Hauptman, D. (1991). *Clinical Application of Respiratory Care*. (4<sup>th</sup> Ed.). St. Louis: Mosby Year Book.
- Stoelting, R., Dierdorf, S., McCammon, R. (1988). *Anesthesia and Co-Existing Disease*. (2<sup>nd</sup> Ed.). New York: Churchill-Livingstone.