Anesthesia Practicum I  
NUR 885: - 1 credit  
Assigned Times  
Summer 2012  

Catalog Course Description: Design and management of the operating room. Principles and techniques of sterility, intravenous and arterial cannulation, and course of anesthesia. Basic drugs and monitors, anesthesia management plan, documentation and ethical consideration in anesthesia practice.

Course Objectives: At the completion of this course the student will be able to:
1. Develop perioperative anesthesia management plans at the basic level for a variety of clinical settings.
2. Apply knowledge of self and the individual to the practice of perioperative anesthesia management.
3. Assess the influence of the individual's health status on the delivery of perioperative anesthesia nursing care.
4. Discuss policies and procedures of the operating room environment that affect perioperative anesthesia care and management.

Additional Course Objectives: At the completion of this course the student will be able to:
1. Familiarize self with the role of the SRNA, the operating room and basic medication classes utilized in the operating room setting by the anesthetist.
2. Position or supervise positioning of patients demonstrating personal and professional integrity and the ability to interact on a professional level to assure optimal physiological function and safety to prevent injury.
3. Identify and take appropriate action when confronted with anesthetic equipment-related malfunctions.
4. Develop a safe anesthetic plan based on the patient's medical history, physical exam, cultural background and surgical procedure.
5. Plan, prepare, administer and vigilantly manage local anesthesia with sedation, regional anesthesia and general anesthesia.
6. Demonstrate skill in inducing and administering an anesthetic for the patient presenting with a full stomach within medically established guidelines.
7. Apply pharmacologic, anatomic, and technical foundations to perform and manage peripheral nerve and major conduction blocks for anesthesia and perioperative pain management.
8. Evaluate practice and integrate current research as related to anesthesia for the purpose of continuous improvement.

Prerequisites: NUR 879

Additional Prerequisites: Acceptance into the Nurse Anesthesia Program

Standards Documents: The curriculum is guided by the following documents:
2. The American Nurses Association Code of Ethics (http://www.nursingworld.org)
3. Scope and Standards for Nurse Anesthesia Practice
4. Code of Ethics for the Certified Registered Nurse Anesthetist
Course Faculty: Gayle Lourens, MS, BSN, CRNA  
gayle.lourens@hc.msu.edu  
Office: 517-432-8163  
A-121 Life Sciences  
Office Hours: Variable – Appointments arranged usually; however, available as needed by students in the Nurse Anesthesia Program to accommodate student schedules

Instruction:

a. **Required Text:**


   Other professional journal readings or media sources as assigned on the Angel Course Website.

Optional Texts:


b. **Required Resources, References, and Supplies:** Calculator, precordial stethoscope, regular stethoscope, access to Angel.
Instruction:
a. **Methodology:** NUR 885 is a 1 credit class that includes both simulation lab and classroom activities, computer-aided instruction, self evaluation and debriefing sessions. This course provides an application environment to utilize didactic knowledge and skills obtained in nurse anesthesia courses. Students will be assigned to groups of 3-4. Completion of assigned readings, worksheet exercises and review of media prior to each class is necessary to facilitate comprehension, understanding and integration of content vital to this course and the practice of nurse anesthesia.

Evaluation:
a. **Learning Assessments and Grading:** NUR 885 is graded as a “pass / no pass”. The course grade is comprised of class preparation, class participation and completion of the weekly objectives. Students will be evaluated individually.

Professionalism:

A. General Statement

B. Progression in the Major
   NUR 885 is a required course in the nurse anesthesia curriculum.

C. Change in Calendar
   The faculty reserves the right to alter the calendar as circumstances may dictate. All changes will be announced in class, posted on the College of Nursing website, or via College of Nursing email. Students not present in class are responsible for obtaining this information.

D. Official Means of Written Communication—Electronic Mail
   Keeping up with changes or news from Michigan State University and the College of Nursing is the responsibility of the student. Electronic mail or e-mail is an official means of written communication for all students, faculty, and staff.

University & College Policies:

The College of Nursing expects that students will demonstrate professional behavior in all situations. Specific expectations for clinical and other professional venues can be found in the appropriate handbook. You are responsible for reviewing and acting in accordance with the policies and procedures found in the following sources, including the following topics: Professionalism, Academic Integrity, Accommodations for Students with Disabilities, Disruptive Behavior, Attendance, Compliance, and Progression.

- CON Student handbook  [http://nursing.msu.edu/handbooks.asp](http://nursing.msu.edu/handbooks.asp)
- Information for Current Students—including Rights, Responsibilities and Regulations for Students  [http://www.msu.edu/current/index.html](http://www.msu.edu/current/index.html)
- Academic Programs  [http://www.reg.msu.edu/UCC/AcademicPrograms.asp](http://www.reg.msu.edu/UCC/AcademicPrograms.asp)

Policies:
**Academic Integrity:** Article 2.3.3 of the Academic Freedom Report states that "The student shares with the faculty the responsibility for maintaining the integrity of scholarship, grades, and professional standards." In addition, the [insert name of unit offering course] adheres to the policies on academic honesty as specified in General Student Regulations 1.0, Protection of Scholarship and Grades; the all-University Policy on Integrity of Scholarship and Grades; and Ordinance 17.00, Examinations. (See Spartan Life: Student Handbook and Resource Guide and/or the MSU Web site: www.msu.edu). Therefore, unless authorized by your instructor, you are expected to complete all course assignments, including homework, lab work, quizzes, tests and exams, without assistance from any source. You are expected to develop original work for this course; therefore, you may not submit course work you completed for another course to satisfy the requirements for this course. Also, you are not authorized to use the www.allmsu.com Web site to complete any course work in NUR 885. Students who violate MSU rules may receive a penalty grade, including—but not limited to—a failing grade on the assignment or in the course. Contact your instructor if you are unsure about the appropriateness of your course work. (See also [http://www.msu.edu/unit/ombud/honestylinks.html](http://www.msu.edu/unit/ombud/honestylinks.html))

Accommodations for Students with Disabilities: **Students with disabilities should contact the Resource Center for Persons with Disabilities to establish reasonable accommodations. For an appointment with a disability specialist, call 353-9642 (voice), 355-1293 (TTY), or visit MyProfile.rcpd.msu.edu.**

**Disruptive Behavior:** Article 2.3.5 of the Academic Freedom Report (AFR) for students at Michigan State University states: "The student's behavior in the classroom shall be conducive to the teaching and learning process for all concerned." Article 2.3.10 of the AFR states that "The student has a right to scholarly relationships with faculty based on mutual trust and civility." General Student Regulation 5.02 states: "No student shall . . . interfere with the functions and services of the University (for example, but not limited to, classes . . .) such that the function or service is obstructed or disrupted. Students whose conduct adversely affects the learning environment in this classroom may be subject to disciplinary action through the Student Faculty Judiciary process.

**Attendance:** Students whose names do not appear on the official class list for this course may not attend this class. Students who fail to attend the first four class sessions or class by the fifth day of the semester, whichever occurs first, may be dropped from the course.

**Course Calendar:** (date of final examination, scheduled according to the University final exam schedule, and tentative dates of required assignments, quizzes, and tests, if applicable).
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<thead>
<tr>
<th>Topical Outline</th>
<th>Criteria for Evaluation</th>
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<tr>
<td><strong>Week 1</strong></td>
<td><strong>Introduction to the OR</strong> <strong>Room set up</strong></td>
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<td>At the end of the session, the student will be able to:</td>
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<td>1. Discuss the role of the SRNA in the OR.</td>
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<td>2. Identify sterile versus nonsterile areas in the OR department and the OR suite.</td>
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<td>3. Discuss proper and improper surgical dress</td>
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<td>4. Demonstrate an understanding of the OR table and its function.</td>
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<td>5. Demonstrate proper draping and hand-off techniques</td>
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<td>6. Describe how universal precautions are used in the operating room setting</td>
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<td>7. Perform a proper time out procedure in the simulated OR environment</td>
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<td><strong>Week 2</strong></td>
<td><strong>The adult airway</strong></td>
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<td>1. Apply didactic airway knowledge to the skills station</td>
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<td>2. Perform a complete airway assessment</td>
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<td>3. Provide an accurate Mallampati score</td>
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<td>4. Recite limitations of adjunct airway equipment (nasal cannula, simple mask, non-</td>
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<td>rebreather, bag-valve mask, nasal and oral airways).</td>
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<td>5. Demonstrate proper airway patency maneuvers</td>
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<td>6. Demonstrate proper placement of nasal and oral airways.</td>
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<td>7. Demonstrate bag valve masking and proper hand placement</td>
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<td><strong>Week 3</strong></td>
<td><strong>The adult airway</strong></td>
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<td>1. Gather equipment necessary for intubation</td>
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<td>2. Demonstrate proper technique intubating with Macintosh and Miller blades.</td>
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<td>3. Validate proper ETT placement</td>
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<td>4. Demonstrate proper insertion of the LMA and discusses limitations of the LMA.</td>
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<td>5. Demonstrate proper nasal intubation technique</td>
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<td>6. Properly secures ETT / NTT and identifies risks associated with securing an ETT or</td>
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<td>LMA device</td>
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<td>7. Discuss indication and contraindications associated with each airway adjunct.</td>
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<td><strong>Week 4</strong></td>
<td><strong>Positioning in the OR</strong></td>
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<td>1. Identify specific positions used in the OR.</td>
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<td>2. Discuss potential injury associated with each position</td>
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<td>3. Demonstrate proper lithotomy, supine, sitting, extremity tuck and prone positioning.</td>
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<td>4. Utilize strategies to reduce patient complications and injury</td>
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<td>5. Discuss physiological changes associated with each position</td>
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<td><strong>Week 5</strong></td>
<td><strong>Fluid Calculation, blood loss calculation, Estimating blood volume, BMI, IBW</strong></td>
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<td><strong>Written Assignment NO LAB</strong></td>
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<td>1. Calculate ideal body weight, hourly IV fluid rate, NPO deficit, EBV, EBL and identify a</td>
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<td>transfusion trigger.</td>
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<td>2. Integrate pathophysiological conditions to fluid and blood product administration.</td>
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<td>1. Perform an preoperative assessment (including airway assessment)</td>
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| Week 6 Scenarios Integrating Weeks 1-5 | 2. Integrates principles of anesthesia (fluid calculations, positioning and airway management)  
2. Prepare a complete tabletop set up.  
2. Discuss each represented drug class (in very general terms only) on the table top  
3. Compare NRIVI, RSVI and inhalation induction sequencing  
4. Synthesize an induction plan based on patient history, case risk / complications and common physiological changes associated with anesthetics.  
3. Verbalize their plan for induction clearly  
4. Communicate their expectations to each of the OR “team”.  
5. Demonstrate a proper inhalation, RSVI and NRIVI.  
6. Demonstrate proper cricoid pressure, Selleck’s maneuver and discuss its limitations.  
7. Differentiate between MAC sedation and general anesthesia  
8. Identify cases / patients in which MAC sedation is an acceptable anesthetic option |
| Week 7 Table Top Set Up Induction Sequences | 1. Prepare a complete tabletop set up.  
2. Discuss each represented drug class (in very general terms only) on the table top  
3. Compare NRIVI, RSVI and inhalation induction sequencing  
4. Synthesize an induction plan based on patient history, case risk / complications and common physiological changes associated with anesthetics.  
3. Communicates induction plan clearly  
4. Communicate their expectations to each of the OR “team”.  
5. Demonstrate a proper inhalation, RSVI and NRIVI.  
6. Demonstrate proper cricoid pressure, Selleck’s maneuver and discuss its limitations.  
7. Differentiate between MAC sedation and general anesthesia  
8. Identify cases / patients in which MAC sedation is an acceptable anesthetic option |
| Week 8 Putting a Plan of Care together Simulation Cases | 1. Integrate knowledge from ALL curriculum including NUR 880, 881, 882, 877 and 878 in formulating an anesthetic plan.  
2. Demonstrate a proper table top set up (independently)  
3. Assemble airway equipment and appropriate room equipment (independently)  
4. Formulate (with instructor assistance) a safe induction plan  
5. Perform a proper induction sequence  
6. Demonstrate proper airway techniques  
7. Select appropriate ventilator settings  
8. Position “patient” properly and verbalizes positioning concerns  
9. Assess for potential complications and respond accordingly (to level of expertise)  
10. Critically evaluate performance; verbalizing goals for improvement |
| Week 9 Introduction to Pediatrics | 1. Compare the child’s airway to the adult’s airway.  
2. Demonstrate proper placement of adjunct airways.  
3. Select proper airway equipment based on pediatric patient size (nasal airways, oral airway, LMA’s, Laryngoscope equipment and ETTs)  
4. Utilize formulas to calculate proper equipment sizing.  
5. Discuss limitations of Macintosh and Miller blades in the infant and small child.  
6. Position infant properly for intubation.  
7. Demonstrate proper technique for intubation of the infant and small child  
8. Describe techniques for suctioning and placing OG and NG tubes in infants and small children. |
| Week 10 Pediatric Scenarios | 1. Prepare a complete table top set up utilizing pediatric dosing sheets or resources  
2. Calculate appropriate pediatric doses  
3. Discuss each represented drug class (in very general terms only) on the table top  
4. Compare NRIVI, RSIVI and inhalation induction sequencing  
5. Synthesize an induction plan based on patient history, case risk / complications and common physiological changes associated with anesthetics.  
6. Clearly communicate plan for induction  
7. Communicate their expectations to each of the OR “team”.  
8. Demonstrate a proper inhalation, RSIVI and NRSIVI.  
9. Demonstrate proper Selleck’s maneuver and discuss its limitations.  
10. Utilize strategies to relate to the pediatric patient  
11. Utilize strategies to reduce surgery related anxiety of the patient and the parents or care providers |
| Week 11 Pediatric and Adult Scenarios Practice, Practice Practice | 1. Prepare a complete table top set up utilizing pediatric dosing sheets or resources  
2. Become familiar with pediatric dosing  
3. Discuss each represented drug class (in very general terms only) on the table top  
4. Compare NRIVI, RSIVI and inhalation induction sequencing  
5. Synthesize an induction plan based on patient history, case risk / complications and common physiological changes associated with anesthetics.  
6. Clearly verbalize their plan for induction  
7. Communicate their expectations to each of the OR “team”.  
8. Demonstrate a proper inhalation, RSIVI and NRSIVI.  
9. Demonstrate proper Selleck’s maneuver and discuss its limitations.  
10. Utilize strategies to relate to the pediatric patient  
11. Utilize strategies to reduce surgery related anxiety of the patient and the parents or care providers |
| Week 12 ENT Scenarios | 1. Prepare a complete table top based on scenario given  
2. Prepare room for case  
3. Perform a preoperative assessment and synthesize a management plan  
4. Clearly discuss (and defend) induction sequence choice.  
5. Perform an induction sequence based on plan  
6. Position the patient safely  
7. Chose appropriate ventilator settings  
9. Verbalize strategies to manage common problems encountered during ENT cases (airway fires, bronchospasm, laryngospasm)  
10. Demonstrate early proficiency in managing scenarios listed in objective #9. |
| Week 13 Debrief Video ROOM 107 | 1. Critically evaluate their performance; verbalizing goals for improvement  
2. Communicate professionally and respectfully when debriefing with cohort. |
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<th>Week 14</th>
<th>FINAL EXAMS  NO SIMULATION</th>
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