



Anesthesia Technology Program



<http://aasprimer.blogspot.com/2014/12/table-top-and-drug-cart-setup.html>

Student Handbook

Surgical Careers Center
Skyline College
3300 College Drive
San Bruno, CA 94066



Skyline College
Anesthesia Technology
Program

I have received the student handbook in paper and/or digital format, read the policies and procedures, and accept that I am responsible for all the information set forth in the Skyline College Anesthesia Technology Student Handbook.

Student Name: _____

Signature: _____

Date: _____



Skyline College
Anesthesia Technology
Program

The student handbook shall serve as a guide through the coursework and for the duration of the Anesthesia Technology Program. I encourage you to review each section and become familiar with the content to gain a better understanding of your role and expectations as an Anesthesia Technologist student.

Diane Alejandro-Harper
Program Director, Anesthesia Technology

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Goal Statement

The Anesthesia Technology Program goals are:

1. Prepare the student in the psychomotor skills and techniques necessary to perform the role of the Anesthesia Technologist.
2. Offer guidance and model behavior to the student to enhance the affective domain of learning.
3. Provide information about Anesthesia Technologist and to stimulate critical thinking.

Accreditation

Skyline College is accredited by the Commission for Accreditation of Community and Junior Colleges, 3402 Mendocino Street, Santa Rosa, CA 95403.

Philosophy

To facilitate learning, the following concepts are in practice inside and outside the classroom:

- The operating room is a team-oriented environment. Each student learns differently and can serve as a resource for his/her fellow student. Therefore, we encourage the formation of study groups.
- Active participation in the class is important. The responsibility for the learning experience belongs to the student as well as to the instructors.
- We treat others with respect.
- Our office doors are always open. If it is not, please wait outside or leave a message on Voice Mail. We will get back to you.
- Please let us know how we can help you meet the course objectives and your professional goals. If necessary, we can refer you to the appropriate office at the College.
- At the end of the course, the student will have the opportunity to evaluate the instructors.

Teaching Methods

- Daily review, questions and answer
- Self-instruction modules, written assignment, presentations
- Lectures, demonstration, audio-visuals, and class exercises
- Clinical skills labs, clinical performance and evaluations

Learning Methods

- Participation is key!
- Attendance is critical to the success and completion of the program.
- Be prepared prior to the start of class.
- Check school email daily to ensure important information is captured
- Timely submission of assignments and paper is important and to ensure success throughout the duration of your program.
- Read the assigned readings. I encourage you to ask questions during class.
- Practice attentive listening- allowing others to speak prior to responding.
- Respect others- instructors, staff, and classmates.
- Write down words or abbreviations you don't know or circle them while reading. Look them up and add to your glossary.
- Practice using key terms learned in class when discussing the material with your peers.
- Reach out to your peers for support.
- The review of notes after our class discussion will reinforce the material.
- Please reach out to our instructor if you need support in your classes or during your clinical rotation.
- We are here for you- value the time at class with your peers and instructors.

Objectives

At completion of the Anesthesia Technology Program, the graduate shall, at the level of an Advanced-Beginner, be able to:

1. Correlate the knowledge of medical terminology, anatomy, physiology, to the roles and responsibilities of an Anesthesia Technologist.
2. Recognize the actions, principles and applications of course content learned in the perioperative setting.
3. Identify equipment, supplies, and materials used in the perioperative setting.
4. Practice aseptic technique in the clinical setting.
5. Demonstrate safe practices among the patients and the perioperative team according to the standards of professional healthcare organizations.
6. Demonstrate competency in the role of an Anesthesia Technologist.
7. Use legal, moral and ethical principles when caring for the patient in the perioperative setting.
8. Acknowledge, value, and respect the characteristics of diverse communities and individuals.
9. Demonstrate professionalism throughout the duration of the program.

Student Learning Outcomes

Upon completion of the program, the student shall be able to:

1. Demonstrate knowledge of Anesthesia Technology principles equivalent to an entry-level Anesthesia Technologist.
2. Demonstrate competency in the clinical skills equivalent to an entry-level Anesthesia Technologist.
3. Demonstrate behavior appropriate for an entry-level Anesthesia Technologist.

Admission Requirements

PREREQUISITES

- High School diploma or equivalent
- English: Eligibility for Skyline College ENGL 100 or equivalent
- Beginning College Algebra equivalent to MATH 110 or MATH 112 or higher
- Chemistry with a lab equivalent to CHEM 192 or CHEM 410
- Human Anatomy with a lab equivalent to BIOL 250
- Medical Terminology equivalent to HSCI 484 or MEDA 484
- CPR for Healthcare Providers equivalent to EMC 425

PHYSICAL ABILITIES

- Able to stand or sit for 8 hours per day
- Able to lift and carry 50 lbs. for 20 feet
- Hands and arms free of skin disease
- Able to manipulate suture as fine as a human hair either with/without glasses or contacts
- Effective verbal communication in English without visual clues

TRANSPORTATION

Reliable transportation to and from the college, clinical site, and field trip assignment is **mandatory**. Examples of reliable transportation include automobile, motorcycle or scooter. Hospital sites can range from a few blocks to 80 miles away from your home depending on the availability. Requests for specific clinical placement will be taken into consideration; however, there is **no guarantee** this will be possible.

COMPUTER SKILLS

- Able to access WebSMART, CANVAS, and other websites/applications
- Use of a computer, laptop, tablet, and/or smartphone with a reliable internet connection
- Use of MS Word, MS Excel, and MS PowerPoint
- **NOTE:** Due to revisions to the Core Curriculum by the Association of Surgical Technologists, the student must be able to demonstrate computer skills in order to pass the National Certification Exam.

COURSE OUTLINE

1. **COURSE ID:** ANST 405 **TITLE:** Basic Principles of Anesthesia Technology

Units: 3.0 units **Hours/Semester:** 48.0-54.0 Lecture hours; and 96.0-108.0 Homework hours

Method of Grading: Letter Grade Only

Prerequisite: Admission to the Anesthesia Technology Program.

2. **COURSE DESIGNATION:**

Degree Credit

Transfer credit: none

3. **COURSE DESCRIPTIONS:**

Catalog Description:

Introduction to the theory and concepts of functioning in a surgical environment including a fundamental understanding of a variety of anesthesia equipment and basic case set-up utilizing anesthesia supplies and equipment.

4. **STUDENT LEARNING OUTCOME(S) (SLO'S):**

Upon successful completion of this course, a student will meet the following outcomes:

- A. Apply theoretical knowledge of anesthesia equipment needed for a variety of surgical cases.
- B. Summarize the proper basic anesthesia set-up for a variety of surgical cases.
- C. Communicate concepts and theoretical knowledge of functioning as an Anesthesia Technologist in the surgical environment.

5. **SPECIFIC INSTRUCTIONAL OBJECTIVES:**

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

- A. Describe the techniques used for basic anesthesia set-up, and daily anesthesia machine check.
- B. Select appropriate anesthesia equipment for various types of surgical cases.
- C. Differentiate between the various medications used in the anesthesia drug cart.
- D. Compare and contrast the various sterilization and cleaning procedures used to clean anesthesia equipment.
- E. Discuss the types of non-invasive and invasive monitoring modalities used in patient care.
- F. Describe the necessary equipment used in the function of the anesthesia gas machine.

6. COURSE CONTENT:

Lecture Content:

I. Environment of Care

A. Asepsis

- i. Handling of sterile products

B. Universal Precautions

- ii. Body fluids
- iii. Protective barriers
- iv. Waste management

C. Sterile Techniques

- v. Methods of sterilization
- vi. Package integrity

D. Surgical Environment

- vii. sterile area
- viii. non-sterile area

E. Anesthesia Workroom

- ix. organization
- x. par optimization
- xi. expiration dates

II. Anesthesia Gas Machine

- b. set up
- c. leak testing
- d. scavenging systems
- e. anesthetic agents

III. Anesthesia Drug Cart

- f. local anesthetics
- g. inhalational anesthetics
- h. intravenous medications
- i. muscle relaxants
- j. antagonists
- k. NSAIDS
- l. antihypertensives
- m. bronchodilators

- n. diuretics
 - o. corticosteroids
- IV. Hemodynamic Monitors

A. Non-invasive

B. Invasive

V. Medical Terminology

- B. cardiovascular
- C. pulmonary
- D. central nervous system
- E. musculoskeletal
- F. endocrine
- G. pathophysiology

VI. Introduction of Operating Room Schedule

- H. Surgical procedures
- I. Codes

- i. respiratory
- ii. cardiac
- iii. infant
- iv. pediatric
- v. security

7. REPRESENTATIVE METHODS OF INSTRUCTION:

Typical methods of instruction may include:

- A. Lecture
- B. Activity
- C. Discussion
- D. Guest Speakers

8. REPRESENTATIVE ASSIGNMENTS

Representative assignments in this course may include, but are not limited to the following:

Writing Assignments:

Writing assignments are given to develop clear thinking and carefully reason through students thought processes for setting up and handling anesthesia equipment.

1. Four written assignments (2-3 pages) pertaining to the basic principles of an Anesthesia Technologist.

2. One written assignment (3-5 pages) and 10-15 minute oral presentation focused on appropriate anesthesia technology concepts as they apply in the surgical environment.

Reading Assignments:

. Students will read 15-20 pages per week from assigned text.

9. REPRESENTATIVE METHODS OF EVALUATION

Representative methods of evaluation may include:

- A. Class Participation
- B. Class Performance
- C. Class Work
- D. Exams/Tests
- E. Homework
- F. Papers
- G. Quizzes
- H. Written examination

10. REPRESENTATIVE TEXT(S):

Possible textbooks include:

- A. Nagelhout, John. *Nurse Anesthesia*, 5th ed. Elsevier, 2014
- B. Morgan & Mikhail. *Clinical Anesthesiology*, 5th ed. McGraw Hill, 2013

1. **COURSE ID:** ANST 410 **TITLE:** Basic Anesthesia Equipment

Units: 3.0 units **Hours/Semester:** 32.0-36.0 Lecture hours; 48.0-54.0 Lab hours; and 64.0-72.0 Homework hours

Method of Grading: Letter Grade Only

Prerequisite: Admission to the Anesthesia Technology Program.

2. **COURSE DESIGNATION:**

Degree Credit

Transfer credit: none

3. **COURSE DESCRIPTIONS:**

Catalog Description:

Introduction to the theories and concepts in the adequate function of anesthesia equipment to include: maintaining equipment, repairing defects and troubleshooting complications.

4. **STUDENT LEARNING OUTCOME(S) (SLO'S):**

Upon successful completion of this course, a student will meet the following outcomes:

- A. Apply theoretical knowledge of functions of the anesthesia equipment appropriate for surgical procedures.
- B. Apply concepts and theoretical knowledge in the preparation of various anesthesia equipment for use by anesthesia providers for complex surgical procedures.

5. **SPECIFIC INSTRUCTIONAL OBJECTIVES:**

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

- A. Understand normal and abnormal hemodynamic values of the patient.
- B. Identify and apply appropriate aseptic technique in the surgical care environment.
- C. Apply anatomical and physiological understanding to appropriate use of patient monitoring equipment used in the surgical environment.
- D. Identify and set up appropriate medications needed for various surgical procedures.
- E. Identify appropriate anesthesia equipment needed in preparation for a variety of applications.
- F. Properly identify warming and cooling devices and appropriately set up and monitor them during patient application.
- G. Describe regulatory compliance and recommended processes for adherence to policies regarding anesthesia equipment.

6. COURSE CONTENT:

Lecture Content:

- I. Infection Control
1. Proper handwashing
 2. Aseptic Technique
 3. Blood borne pathogen
 4. Personal protective equipment
 - a. gloves
 - b. protective eyewear
 - c. gown
 - i. surgical
 - ii. isolation
 - d. mask
 - i. surgical
 - ii. N-95
 5. Regulatory agencies
 - a. CDC
 - b. OSHA
 - c. JCAHO
- II. Body Mechanics
6. Ergonomics
 7. Safe patient handling
 8. Safe equipment handling
- III. Vital Sign Monitoring and Structure Identification
9. Pulse oximetry
 10. Core body temperature
 11. Heart rate
 12. Respiratory rate
 13. Blood Pressure
 - a. invasive
 - b. non-invasive
- IV. Anesthesia Machine Management
14. Adult
 15. Pediatrics
- V. Cardiac Arrest Management
16. Defibrillator
 17. CPR
 18. Bag-valve mask
- VI. Medication Management
19. Patient identifiers
 20. Medication labeling
 21. Sharps safety
 22. IV Technique

- VII. Information Documentation
- 23. Vital sign monitoring
 - 24. Electronic patient medical record
 - 25. Scope documentation
- VIII. Airway Equipment (General and Advanced)

- 1. Usage
- 2. Maintenance
- 3. Troubleshooting Techniques

IX. Hemodynamic Monitoring

- 1. Usage
 - a. CNS
 - b. Cardiovascular
 - c. Pulmonary

- 2. Maintenance
- 3. Troubleshooting

X. Medication Delivery Systems

- 1. Usage
- 2. Maintenance
- 3. Troubleshooting

XI. Patient Warming and Cooling Devices

- 1. Usage
- 2. Maintenance
- 3. Troubleshooting

Lab Content:

- I. Apply Infection Control Techniques
 - B. Proper handwashing
 - C. Aseptic Technique
 - D. Blood borne pathogen

- E. Personal protective equipment
- II. Integration of Body Mechanics
 - F. Ergonomics
 - G. Safe patient handling
 - H. Safe equipment handling
- III. Application of Monitoring Devices
 - I. Pulse oximetry
 - J. Core body temperature
 - K. Heart rate
 - L. Respiratory rate
 - M. Blood Pressure
- IV. Setup and Management of Various Anesthesia Technologist Responsibilities
 - N. Patient Variables
 - a. Adult
 - b. Pediatrics
 - c. Age
 - d. Height/Weight
 - O. Defibrillator
 - P. CPR
 - Q. Bag-valve mask
 - R. Medications
 - a. Identification
 - b. Application
 - c. Labeling
 - d. IV equipment setup
- V. Information Documentation
 - S. Vital signs
 - T. Electronic patient medical record
 - U. Equipment functionality

7. REPRESENTATIVE METHODS OF INSTRUCTION:

Typical methods of instruction may include:

- A. Lecture
- B. Lab
- C. Activity
- D. Discussion
- E. Guest Speakers

8. REPRESENTATIVE ASSIGNMENTS

Representative assignments in this course may include, but are not limited to the following:

Writing Assignments:

Writing assignments are given to develop clear thinking and carefully reasoning through students own thought processes for selection of equipment and pertinence to surgical procedures.

Four written assignments (2-3 pages) pertaining to the function of anesthesia equipment in surgical procedures.

One written assignment (3-5 pages) and a 10-15 minute oral presentation focused on the selection and preparation of anesthesia equipment used in complex surgical procedures.

Reading Assignments:

Students will read 15-20 pages per week from assigned text.

9. REPRESENTATIVE METHODS OF EVALUATION

Representative methods of evaluation may include:

- A. Class Participation
- B. Class Performance
- C. Class Work
- D. Exams/Tests
- E. Homework
- F. Lab Activities
- G. Papers
- H. Quizzes
- I. Written examination

10. REPRESENTATIVE TEXT(S):

Possible textbooks include:

- A. Morgan, G.. *Clinical Anesthesiology*, 5th ed. McGraw Hill, 2013

1. **COURSE ID:** ANST 415 **TITLE:** Anesthesia Pharmacology

Units: 3.0 units **Hours/Semester:** 48.0-54.0 Lecture hours; and 96.0-108.0 Homework hours

Method of Grading: Letter Grade Only

Prerequisite: ANST 405 or equivalent.

2. **COURSE DESIGNATION:**

Degree Credit

Transfer credit: none

3. **COURSE DESCRIPTIONS:**

Catalog Description:

Introduction to the theory and concepts in the proper use and safe practice of delivery and storage of anesthesia medications which includes: stocking of the drug cart and assisting the anesthesia care provider in the preparation of the medications.

4. **STUDENT LEARNING OUTCOME(S) (SLO'S):**

Upon successful completion of this course, a student will meet the following outcomes:

- A. Apply theoretical knowledge in the differentiation of various categories of anesthetic and adjunct medications.
- B. Apply theoretical knowledge and concepts of the proper use and administration of anesthetic and adjunct medications.
- C. Apply theoretical knowledge and concepts in the appropriate storage of anesthesia medications.

5. **SPECIFIC INSTRUCTIONAL OBJECTIVES:**

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

- A. Describe safe and effective methods to order, categorize, and store medications in the anesthesia environment.
- B. Use effective communication skills when interacting with anesthesia providers in assisting with the administration of medications.
- C. Perform proper psychomotor skills in assisting anesthesia providers in the handling and use of anesthesia and adjunct medications.
- D. Differentiate between the various types of intravenous medications.
- E. Compare and contrast the side effects of the inhalational agents.
- F. Differentiate between the various types of intravenous fluids and blood products.
- G. Describe the proper labeling of anesthetic medications.

6. COURSE CONTENT:

Lecture Content:

I. Pharmacodynamics and Pharmacokinetics

- A. Drug receptor interactions
- B. Chemical interactions
- C. Dose response relationships
- D. Drug absorption, bioavailability, distribution to tissues, metabolism, excretion

II. Types of Anesthetics Agents

- A. Barbiturates
- B. Muscle Relaxants
- C. Inhalational
- D. Narcotics
- E. Anxiolytics
- F. Local Anesthetics
- G. Cardiac Drugs (ACLS) / Vasopressors
- H. Reversal Agents
- I. Antiemetics

III. Parenteral Agent

A. IV Fluids

- 1. Crystalloids
- 2. Colloids
- 3. Blood Products

IV. Antibiotics

- E. Penicillin's
- F. Cephalosporins
- G. Macrolides
- H. Fluoroquinolones

- V. Drug Stability/Storage/Labeling
 - I. Temperature
 - J. Refrigeration
 - K. Expiration date
 - L. Drug Concentration
 - M. Security
- VI. Regulatory Compliance
 - N. CDC
 - O. JCAHO
 - P. OSHA
- VII. Medication Calculations and Conversions
 - Q. Units of measurement
 - R. Dosage formulation

7. REPRESENTATIVE METHODS OF INSTRUCTION:

Typical methods of instruction may include:

- A. Lecture
- B. Activity
- C. Discussion
- D. Guest Speakers

8. REPRESENTATIVE ASSIGNMENTS

Representative assignments in this course may include, but are not limited to the following:

Writing Assignments:

Writing assignments are given to develop clear thinking and carefully reasoning through students own thought processes for choice of medications.

Four written assignments (2-3 pages) pertaining to identification, handling, and storage of medications.

- a. One written assignment (3-5 pages) and a 10-15 minute oral presentation on the various categories of anesthetic medications.

Reading Assignments: Students will read 15-20 pages per week from assigned text.

9. REPRESENTATIVE METHODS OF EVALUATION

Representative methods of evaluation may include:

- . Class Participation
- A. Class Performance
- B. Class Work
- C. Exams/Tests

- D. Homework
- E. Papers
- F. Quizzes
- G. Written examination

10. REPRESENTATIVE TEXT(S):

Possible textbooks include:

Nagelhout, J., K. Plaus. *Nurse Anesthesia*, 5th ed. Elsevier, 2014

Flood, P., J.P. Rathmell, S. Shafer. *Stoelting's Pharmacology and Practice*, 5th ed. Wolters Kluwer, 2015

Woodworth, G., S. Sayers-Rana, J. Kirsch. *The Anesthesia Technician and Technologists' Manual*, 1st ed. Lippincott Williams and Wilkins, 2012

COURSE ID: ANST 420 **TITLE:** Application of Principles in Anesthesia Technology

Units: 3.0 units **Hours/Semester:** 48.0-54.0 Lecture hours; and 96.0-108.0 Homework hours

Method of Grading: Letter Grade Only

Prerequisite: ANST 405 or equivalent.

1. COURSE DESIGNATION:

Degree Credit

Transfer credit: none

2. COURSE DESCRIPTIONS:

Catalog Description:

Introduction to the theory and concepts of the use and function of anesthesia supplies and equipment used for various surgical procedures to include cases in: general, regional, and conscious sedation.

3. STUDENT LEARNING OUTCOME(S) (SLO'S):

Upon successful completion of this course, a student will meet the following outcomes:

- A. Apply theoretical knowledge to demonstrate competency in the use and care of anesthesia equipment.
- B. Communicate concepts and theoretical knowledge as it applies to maintenance of the anesthesia work area in the surgical environment.

4. SPECIFIC INSTRUCTIONAL OBJECTIVES:

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

- A. Prepare anesthesia equipment for proper disposal, cleaning, and sterilization requirement.
- B. Demonstrate psychomotor skills in the preparation of equipment for a variety of surgical cases and procedures in anesthesia.
- C. Use adequate communication skills when interacting with anesthesia care providers.
- D. Differentiate between the various types of airway equipment used in the difficult airway cart.
- E. Differentiate between the various types of anesthesia.
- F. Compare and contrast the various patient anatomical positions for surgical cases.

- G. Differentiate between the proper cleaning and sterilization of anesthesia equipment.
- H. Discuss the ASA guidelines for the anesthesia gas machine checkout.

5. COURSE CONTENT:

Lecture Content:

I. Airway Equipment

A. General

- i. Anesthesia machine
- ii. Laryngoscope
- iii. Suction
- iv. Oral airway
- v. Nasopharyngeal airway
- vi. Laryngeal mask airway
- vii. Non-rebreather mask

B. Difficult Airway

- viii. Bronchoscope
- ix. Video-assisted laryngoscopy
- x. Tracheostomy tube
- xi. Bougie
- xii. Bag-valve mask
- xiii. Intubating stylet
- xiv. Tube changer
- xv. Fiberoptic-guided intubation
- xvi. Light wand
- xvii. Jet ventilation

II. Types of Anesthesia

A. Regional

- xviii. Peripheral nerve block
- xix. Epidural
- xx. Spinal
- xxi. Risks and benefits

B. General

- xxii. Inhalational
- xxiii. Intravenous

xxiv. Risks and benefits

C. Conscious Sedation

xxv. Level of sedation

xxvi. Analgesia

xxvii. Risks and benefits

III. Patient Positioning

i. Supine

ii. Lateral

iii. Prone

iv. Lithotomy

v. Body regions

vi. Ergonomic safety

vii. Patient safety measures

viii. Positioning equipment

ix. Pressure ulcers

x. Incident reporting

xi. IV. Room Set-up and Tear Down

xii. Infection prevention

xiii. Sharps safety

i. Anesthesia machine

ii. Troubleshooting

iii. Medication supply cabinet

iv. Biohazard waste

v. HIPAA

vi. Communication

vii. Electronic medical record

V. Cleaning and Sterilization of Instrument and Equipment

a. Personal protective equipment

b. Standard precautions

c. Contact precautions

d. Airborne precautions

e. Droplet precautions

f. Dwell time

g. Critical items

h. Semi-critical items

i. Non-critical items

j. Chemical disinfectants

k. Inactivating agents

l. Steam sterilization

m. Flash sterilization

n. Gas sterilization

o. Packaging

p. Storage

q. Quality measures

VI. Laboratory Tests and Values

- a. Na
- b. Cl
- c. BUN
- d. GLU
- e. PT
- f. INR
- g. K
- h. HCO₃
- i. CR
- j. CA
- k. PTT
- l. HCT
- m. Hgb
- n. PLTS
- o. ABG
- p. pH
- q. O₂
- r. CO₂

VII. Anesthesia Gas Machine Checkout

- a. Auxiliary oxygen
- b. Gas cylinders
- c. Manual ventilation device
- d. Suction
- e. Power supply
- f. Physiological monitors
- g. Alarms
- h. Pressure
- i. Flowmeter
- j. Gas Outlets
- k. Calibration
- l. Carbon dioxide absorbent
- m. Breathing system pressure
- n. Leak test
- o. Time out

VIII. Medication Delivery System

- a. Anesthesia machine
- b. Infusion pump
- c. Syringe pump
- d. Vaporizer
- e. TIVA

IX. Patient Warming and Cooling Devices

- a. Normothermia
- b. Hypothermia
- c. Hyperthermia

- d. Forced-air
- e. Fluid-based
- f. Surgical site infection
- g. Surgical care improvement project
- X. Out of O.R. Anesthetizing Locations
 - a. Endoscopy
 - b. Cath lab
 - c. CT scan
 - d. MRI
 - e. Oncology
 - f. Emergency room
 - g. Obstetrics
 - h. Patient care unit
 - i. Considerations

6. REPRESENTATIVE METHODS OF INSTRUCTION:

Typical methods of instruction may include:

- A. Lecture
- B. Activity
- C. Discussion
- D. Guest Speakers

7. REPRESENTATIVE ASSIGNMENTS

Representative assignments in this course may include, but are not limited to the following:

Writing Assignments:

- Four written assignments (2-3 pages) pertaining to the maintenance of the anesthesia work area.
- One written assignment (3-5 pages) and a 10-15 minute oral presentation on the use and application of anesthesia supplies and equipment used in the surgical environment.

Reading Assignments:

- A. Students will read 15-20 pages per week from assigned text.

8. REPRESENTATIVE METHODS OF EVALUATION

Representative methods of evaluation may include:

- . Class Participation
 - A. Class Performance
 - B. Class Work

- C. Exams/Tests
- D. Homework
- E. Papers
- F. Quizzes
- G. Written examination

9. REPRESENTATIVE TEXT(S):

Possible textbooks include:

Jaffe, R, A. *Anesthesiologist's Manual of Surgical Procedures*, 5th ed. Wolters Kluwer, 2014

Pino, R, M. *Clinical Anesthesia Procedures of the Massachusetts General Hospital*, 9th ed.

Wolters Kluwer, 2016

COURSE ID: ANST 425 **TITLE:** Anesthesia Technology Clinical Experience I

Units: 5.0 units **Hours/Semester:** 320.0-320.0 Field Experience hours

Method of Grading: Pass/No Pass Only

Prerequisite: ANST 410 or equivalent.

COURSE DESIGNATION:

Degree Credit

Transfer credit: none

1. COURSE DESCRIPTIONS:

Catalog Description:

Introduction to the theory and clinical practice of anesthesia to include: general, regional and conscious sedation techniques. Students will become familiarized with the surgical environment and practice skills and abilities in all basic areas related to role of the Anesthesia Technologist.

2. STUDENT LEARNING OUTCOME(S) (SLO'S):

Upon successful completion of this course, a student will meet the following outcomes:

- A. Demonstrate competency in the preparation and monitoring of basic equipment in anesthesia.
- B. Demonstrate competency to the role of the Anesthesia Technologist in the care of the surgical patient.

3. SPECIFIC INSTRUCTIONAL OBJECTIVES:

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

- A. Write a comprehensive anesthesia plan of care in conjunction with the anesthesia care provider for the surgical patient.
- B. Demonstrate decision making skills used in the anesthesia care of the surgical patient.
- C. Demonstrate proper psychomotor skills in preparation of anesthesia equipment used in surgery.
- D. Differentiate and appropriately apply the various equipment modalities used in the anesthesia care of the surgical patient.
- E. Differentiate and appropriately apply warming devices used in the care of the different patient populations.

4. COURSE CONTENT:

Lab Content:

During their clinical rotation, students will integrate theory and practice learned towards competency. The following skills will be covered under field experience:

- II. Airway equipment: usage, maintenance, troubleshooting techniques
 - face mask
 - laryngoscope
 - endotracheal tube
 - endobronchial tube
 - oral airway
 - nasal airway
 - laryngeal mask airway
 - jet ventilation
 - stylet
- II. Hemodynamic monitoring: usage, maintenance, troubleshooting techniques
 - 1. electrocardiogram
 - arterial pressure
 - non-invasive blood pressure
 - central venous pressure
 - temperature
 - III. Medication delivery systems: usage, maintenance, troubleshooting techniques
 - 2. inhalational
 - intravenous
 - syringe pump
 - IV. Patient warming and cooling Devices: usage, maintenance, troubleshooting techniques
 - blood warmer
 - fluid warmer
 - forced air warming
 - V. Workload Responsibilities
 - anesthesia care plan
 - work assignment
 - organization and management
 - ordering of medication and supplies
 - facilitation of routine maintenance of equipment
 - problem solving issues within and across departments
 - discipline regulatory compliance

5. REPRESENTATIVE METHODS OF INSTRUCTION:

Typical methods of instruction may include:

- A. Activity
- B. Discussion
- C. Field Experience
- D. Observation and Demonstration
- E. Other (Specify): Practical Clinical Application

6. REPRESENTATIVE ASSIGNMENTS

Representative assignments in this course may include, but are not limited to the following:

Writing Assignments:

- 2-3 pages written self-reflection summary of internship experiences, integrated goals, and overall performance.
- 2-3 page paper on patient case experience
- Weekly discussion board participation

7. REPRESENTATIVE METHODS OF EVALUATION

Representative methods of evaluation may include:

- A. Class Participation
- B. Class Performance
- C. Final Performance
- D. Simulation
- E. Written examination
- F. Skills Competency Assessment

8. REPRESENTATIVE TEXT(S):

Possible textbooks include:

- A. Morgan, G.. *Clinical Anesthesiology*, 5th ed. McGraw Hill, 2013

COURSE ID: ANST 430 **TITLE:** Advanced Anesthesia Equipment

Units: 3.0 units **Hours/Semester:** 32.0-36.0 Lecture hours; 48.0-54.0 Lab hours; and 64.0-72.0 Homework hours

Method of Grading: Letter Grade Only

Prerequisite: ANST 420 or equivalent.

1. COURSE DESIGNATION:

Degree Credit

Transfer credit: none

2. COURSE DESCRIPTIONS:

Catalog Description:

Introduction to the theory and concepts of advanced anesthesia equipment used in surgical procedures.

3. STUDENT LEARNING OUTCOME(S) (SLO'S):

Upon successful completion of this course, a student will meet the following outcomes:

- A. Apply theoretical knowledge in the function and use of advanced equipment used in surgical procedures.
- B. Apply theoretical knowledge and concepts in the role of the Anesthesia Technologist in advanced surgical procedures.

4. SPECIFIC INSTRUCTIONAL OBJECTIVES:

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

- A. Develop a comprehensive anesthesia plan of care with the anesthesia provider for the complex surgical patient.
- B. Demonstrate effective communication skills when interacting with the anesthesia care provider in preparation for a complex surgical procedure.
- C. Differentiate between the various types of complex anesthesia equipment and instrumentation.
- D. Compare and contrast the various modalities used in peripheral nerve blocks.
- E. Demonstrate the characteristics of an effective leader in communicating with other anesthesia providers in the care of complex surgical procedures.
- F. Manage an anesthesia care environment to ensure proper function of various anesthesia equipment used in complex surgical procedures.

5. COURSE CONTENT:

Lecture Content:

I. Infection Control

- A. Isolation precautions
- B. Contact precautions
- C. Airborne precautions
- D. Droplet precautions

II. Body Positioning

- E. Prone
- F. Supine
- G. Lithotomy
- H. Lateral
- I. Sitting
- J. Beach Chair
- K. Trendelenburg
- L. Reverse Trendelenburg

III. Monitoring

- 1. Depth of sleep
 - Cerebral oximetry
 - Train of four
 - Urine output
 - Cardiac output
 - Pulmonary artery pressure/SVO₂
 - Doppler
 - Blood salvage system
 - Transesophageal Echocardiography (TEE)
 - Intra-aortic balloon pump (IABP)
 - Point of care testing device
 - Peripheral nerve block monitor
 - Ultrasound system
 - Rapid infusion device
 - Crash cart

III. Anesthetic Delivery Systems

- A. High/low pressure gas sources
- B. Regulators
- C. Flowmeters
- D. Vaporizers
- E. Failure safety device
- F. Ventilator
- G. Carbon dioxide absorbent
- H. Anesthesia circuit
- I. Electronic alarm device

VI. Workload Responsibilities

- J. Incorporates anesthesia care plan with daily tasks
- K. Leads and manages work assignments
- L. Coordinates ordering of medication and supplies
- M. Facilitates routine maintenance of equipment
- N. Facilitates problem solving issues within and across departments
- O. Ensures department regulatory compliance
- P. Documents on electronic medical record

Lab Content:

- I. Infection Control
 - i. Proper hand washing
 - 1. audits
 - ii. Sterile and aseptic technique
 - a. transducer set-up
 - b. line placement
 - iii. Regulatory agencies
 - a. county
 - b. state
- II. Body Mechanics
 - a. Patient positioning
 - b. Repetitive motion
 - c. Exercise
- III. Application of Monitoring Device
 - a. Use
 - b. Maintenance
 - c. Troubleshooting
- IV. Anesthetic Delivery Systems
 - Q. Use
 - R. Troubleshooting
 - S. Maintenance
- V. Cardiac Arrest Management
 - T. CPR
 - i. BLS
 - ii. ACLS
- VI. Blood Products
 - U. Types
 - V. Scope of practice
 - W. Autotransfusion
 - X. Rapid infuser
- VII. Information Documentation
 - Y. Connectivity
 - Z. Charge capture
 - AA. Downtime
 - BB. Troubleshooting

6. REPRESENTATIVE METHODS OF INSTRUCTION:

Typical methods of instruction may include:

- A. Lecture
- B. Lab
- C. Activity
- D. Discussion
- E. Guest Speakers

7. REPRESENTATIVE ASSIGNMENTS

Representative assignments in this course may include, but are not limited to the following:

Writing Assignments:

- 2-3 written paper assignments relevant to advanced anesthesia equipment.
- 2-3 written paper assignments on anesthesia care plan and its application for complex surgical procedures.

Reading Assignments:

- A. Students will read 15-20 pages per week on assigned text.

2. REPRESENTATIVE METHODS OF EVALUATION

Representative methods of evaluation may include:

- A. Class Participation
- B. Class Performance
- C. Exams/Tests
- D. Final Performance
- E. Homework
- F. Lab Activities
- G. Papers
- H. Quizzes
- I. Simulation
- J. Written examination

3. REPRESENTATIVE TEXT(S):

Possible textbooks include:

- A. Sandberg, W., R. Urman, J. Ehrenfeld. *The MGH Textbook of Anesthetic Equipment*, 1st ed. Elsevier, 2011
- B. Butterworth, J., D. Mackey, J. Wasnick. *Morgan and Mikhail's Clinical Anesthesiology*, 5th ed. McGraw Hill, 2013

COURSE ID: ANST 435 **TITLE:** Anesthesia Technology Clinical Experience II

Units: 5.0 units **Hours/Semester:** 320.0-320.0 Field Experience hours

Method of Grading: Pass/No Pass Only

Prerequisite: ANST 430 or equivalent.

1. COURSE DESIGNATION:

Degree Credit

Transfer credit: none

2. COURSE DESCRIPTIONS:

Catalog Description:

Continued application of advanced theory and concepts of clinical practice skills to mastery. Students operate independently as an Anesthesia Technologist in all aspects of patient care including: preoperative, intraoperative, and postoperative surgical phases.

3. STUDENT LEARNING OUTCOME(S) (SLO'S):

Upon successful completion of this course, a student will meet the following outcomes:

- A. Demonstrate mastery and independence in the preparation and monitoring of basic and advanced equipment in anesthesia.
- B. Demonstrate mastery and independence in the role of an Anesthesia Technologist at the advanced level for all types of surgical cases.

4. SPECIFIC INSTRUCTIONAL OBJECTIVES:

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

- A. Describe the preparation of basic and advanced anesthesia equipment for complex anesthesia cases and procedures.
- B. Differentiate between simple and complex types of anesthesia equipment and supplies.
- C. Analyze patient information to develop an adequate plan of care.
- D. Demonstrate appropriate psychomotor skills at the advanced level in the anesthesia preparation of all surgical cases.
- E. Demonstrate mastery in organization and management of workload responsibilities as an Anesthesia Technologist in the care of the surgical patient..
- F. Apply skills in varied surgical areas of cardiac, regional, and trauma anesthesia.

5. COURSE CONTENT:

Lab Content:

Students will continue to practice the following skills to mastery for usage, maintenance, and troubleshooting techniques. The following skills will be covered under field experience:

I. Airway equipment

- Face mask
- Laryngoscope
- Endotracheal and endobronchial tube
- Oral and nasal airway
- Laryngeal mask airway
- Jet ventilation
- Stylet

III. Hemodynamic monitoring

1. Electrocardiogram

- Arterial pressure
- Non-invasive blood pressure
- Central venous pressure
- Temperature

IV. Medication delivery systems

2. Inhalation

- Intravenous
- Syringe pump

IV. Patient warming and cooling devices

3. Blood warmer

- Fluid warmer
- Forced air warming

V. Workload responsibilities

4. Anesthesia care plan

- Work assignment
- Organization and management
- Ordering of medication and supplies
- Facilitation of routine maintenance of equipment
- Problem solving issues within and across departments
- Discipline regulatory compliance
- Students will also integrate theory and practice towards competency in the following advanced skills:

I. Advanced Anesthesia Equipment Set-up for All Types of Cases

5. Autotransfusion device

- Ultrasound device
- Transesophageal echocardiography (TEE)
- Peripheral nerve block monitor
- Rapid infusion pump
- Intra-aortic balloon pump (IABP)

- 6. Code Blue crash cart
 - II. Maintenance of Anesthesia Workroom
- 7. Inventory
 - Par level
 - Outdates
 - Regulatory requirements
 - III. Collaborate and Assist Anesthesia Personnel in Patient Care
- 8. Planning
 - Induction
 - Extubation
 - Transport
 - IV. Troubleshoot Advanced Anesthesia Equipment for All Types of Cases
- 9. Autotransfusion
 - Ultrasound
 - Transesophageal echocardiography (TEE)
 - Peripheral nerve block monitor
 - Rapid infusion pump
 - Intra-aortic balloon pump (IABP)
 - Code Blue crash cart
 - V. Function as an Anesthesia Technologist
- 10. Cardiac anesthesia
 - Regional anesthesia
 - Trauma anesthesia

REPRESENTATIVE METHODS OF INSTRUCTION:

Typical methods of instruction may include:

- A. Lecture
- B. Lab
- C. Activity
- D. Discussion
- E. Experiments
- F. Field Experience
- G. Observation and Demonstration

REPRESENTATIVE ASSIGNMENTS

Representative assignments in this course may include, but are not limited to the following:

Writing Assignments:

- Written summary of internship experiences, integrated goals, and a self-reflection of overall performance.
- 2-3 page case history presentation

- Discussion board participation

6. REPRESENTATIVE METHODS OF EVALUATION

Representative methods of evaluation may include:

- A. Class Participation
- B. Class Performance
- C. Exams/Tests
- D. Final Performance
- E. Group Projects
- F. Homework
- G. Lab Activities
- H. Oral Presentation
- I. Papers
- J. Projects
- K. Simulation
- L. Written examination

7. REPRESENTATIVE TEXT(S):

Possible textbooks include:

- A. Jaffe, R, A. *Anesthesiologist's Manual of Surgical Procedures*, 5th ed. Wolters Kluwer, 2014

COURSE ID: ANST 440 **TITLE:** Anesthesia Technology Examination and Review

Units: 3.0 units **Hours/Semester:** 48.0-54.0 Lecture hours; and 96.0-108.0 Homework hours

Method of Grading: Letter Grade Only

Prerequisite: ANST 435 or equivalent.

1. COURSE DESIGNATION:

Degree Credit

Transfer credit: none

2. COURSE DESCRIPTIONS:

Catalog Description:

Preparation and review for the Certified Anesthesia Technologist examination required by the American Society for Anesthesia Technologists and Technicians.

3. STUDENT LEARNING OUTCOME(S) (SLO'S):

Upon successful completion of this course, a student will meet the following outcomes:

- A. Apply theoretical knowledge to practice certification exams focused on competencies of a Certified Anesthesia Technologist.
- B. Successfully pass sample ?Certified Anesthesia Technologist? credentialing exam.

4. SPECIFIC INSTRUCTIONAL OBJECTIVES:

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

- A. Describe the process in the preparation of the ASATT exam.
- B. Discuss the outcome of the Mock ASATT exam.
- C. Build confidence of student to attempt and successfully complete exams.
- D. Demonstrate acquired knowledge and competent practice through case study and clinical simulation.
- E. Analyze appropriate data and information to develop and implement patient care plans.
- F. Discuss clinical scenarios in the development, implementation, and evaluation of patient care.

5. COURSE CONTENT:

Lecture Content:

- I. Clinical Case Scenarios
 - A. Formulation of anesthesia care plan
 - B. Implementation of anesthesia care plan
 - C. Discussion of anesthesia care plan
- II. Exam Review
 - D. Equipment
 - E. Instrumentation
 - F. Technology
 - G. Body systems
 - H. Pharmacology
 - I. Principles in anesthesia
 - J. Professional aspects in anesthesia
- III. Review Application of ASATT Exam
 - K. Requirements
 - L. Schedule
 - M. Fees
- IV. Mock ASATT Exam

6. REPRESENTATIVE METHODS OF INSTRUCTION:

Typical methods of instruction may include:

- A. Lecture
- B. Activity
- C. Critique
- D. Discussion
- E. Guest Speakers
- F. Observation and Demonstration

7. REPRESENTATIVE ASSIGNMENTS

Representative assignments in this course may include, but are not limited to the following:

Writing Assignments:

Examples of possible writing assignments may include:

- A. Written assignments relevant to a patient specific scenario in surgery (1-2 pages).
- B. Written assignment that addresses patient history, procedure, proper equipment set-up, and anticipation of potential complications (1-2 pages).

Reading Assignments:

Selected readings to review for certification exam from text and relevant articles pertaining to safe and effective Anesthesia Technologist care. Reading assignments can range from 10 - 50 pages per week.

Other Outside Assignments:

Evaluation of a clinical scenario in the development, implementation, and evaluation of patient care.

8. REPRESENTATIVE METHODS OF EVALUATION

Representative methods of evaluation may include:

- A. Class Participation
- B. Class Performance
- C. Exams/Tests
- D. Final Performance
- E. Group Projects
- F. Oral Presentation
- G. Papers
- H. Projects
- I. Written examination

9. REPRESENTATIVE TEXT(S):

Possible textbooks include:

- A. Sandberg, W., R. Urman, J. Ehrenfeld. *The MGH Textbook of Anesthetic Equipment*, 1st ed. Elsevier, 2011
- B. Butterworth, J., D. Mackey, J. Wasnick. *Morgan and Mikhail's Clinical Anesthesiology*, 5th ed. McGraw Hill, 2013
- C. Jaffe, R., A. *Anesthesiologist's Manual of Surgical Procedures*, 5th ed. Wolters Kluwer, 2014
- D. Nagelhout, J., K. Plaus. *Nurse Anesthesia*, 5th ed. Elsevier, 2014
- E. Pino, R., M. *Clinical Anesthesia Procedures of the Massachusetts General Hospital*, 9th ed. Wolters Kluwer, 2016

Required Texts

** Textbooks must be purchased prior to the first day of class. Failure to purchase these books will place the student's standing in the program in jeopardy. Textbooks and software are available at the Skyline Bookstore one week before the first day of class, or on-line at www.amazon.com or other sites.

Supplies

Required:

1. Skyline Anesthesia Technology scrub uniform (top, pants) for classroom and lab
2. Skyline I.D. badge with lanyard
3. Closed toe walking shoes with leather uppers (No sandals or clogs)

Recommended:

1. Three-ring binder, 3"
2. College-ruled paper, several packages
3. 3" x 5" Index Cards (For flashcards)
4. Pocket dividers for handouts
5. Lunch bag or cooler

Clinical:

1. Combination lock for locker at clinical sites
2. Support hose for men or women (available at Amazon or most drug stores)
3. Pocket notebook, 4" x 5", for clinical notes
4. Scissors
5. Lunch bag or cooler

Resources

- Surgical Careers Center: textbooks, journals, CDs
- Skyline Library and Interlibrary Loan System (Building 5)
- Skyline Learning Center (Building 5): FREE! Tutoring in Math, English, Reading, Writing, Test-taking Skills, Study Skills
- American Society of Anesthesia Technologists (ASATT) professional development, and publications (www.asatt.org)
- Association of periOperative Registered Nurses: (www.aorn.org)

Child Care

The Children's Center offers daycare to low income families from 7:30 am to 5:00 pm. Children must be 18 months or older and the parent must show proof of financial need. The Center is located behind the Loma Chica School, on the north side of the college campus. For more information, call 650-359-8637. Places fill up quickly, we encourage you call as soon as possible.

Disabled Students

In coordination with the Disabled Students Program, reasonable accommodation shall be provided to any student deemed qualified by the DSP office. This includes learning disabilities as well as physical disabilities. If a student has special needs, s/he must see the Instructor on or before the first day of class to submit an accommodation letter and to discuss these needs. To obtain more information, the DSP office number is 650-738-4280.

Counseling

Students may find trying to balance work, school, and family a daunting task. The demands of vocational training can place stress on anyone. People seek counseling for a variety of issues: careers, class work, finances, anxiety, and problems with instructors. **Contact: 650-738-4459**

Policies and Procedures

ACADEMIC INTEGRITY

Plagiarism is defined as copying another's work or taking text from another source and passing it off as one's own work. Cheating is defined as copying answers from another student's test or obtaining answers from another resource during a test or changing answers after the grading of a test. The work you submit must be your own. The Skyline College Student Handbook has a complete statement defining cheating and plagiarism. If you are caught cheating, you will receive a zero on the test and must report to the Supervisor of the Allied Health Programs. If there is a second incident, you will be subject to disciplinary action including possible suspension or dismissal from the Program.

ASSIGNMENT OF CLINICAL SITE

- The clinical coordinator will assign students according to each student's academic performance- attendance, grades, and professional demeanor.
- **The location of the facility, time of shift, and personnel assigned are not guaranteed.**
- Negotiations of assignments are prohibited.
- A clinical assignment may be rescinded or modified at any time.
- The clinical coordinator will try to obtain a placement within a 50-mile radius of the student's home.
- Refusal of an assignment will result in the loss of priority placement.
- A clinical assignment may be rescinded or modified at any time as a result of changes in clinical placement availability.
- A student who refuses an assignment and/or fails to demonstrate competency by the end of the Spring semester, will receive a grade of "No Pass" and will be required to re-register for the course the next time it is offered.
- If a clinical assignment is not completed by the end of the Spring semester due to clinical site placement delay, the student will receive a grade of "Incomplete" and will be offered

an opportunity in the Summer semester provided site placements and personnel are available to supervise as clinical instructors.

- A student who is unable to complete their training by the end of the Summer due to clinical site placement delay, will receive a grade of “Incomplete” and will have to return the following year the course is offered.

Delays in starting the clinical training may occur due to illness/injury, or unforeseen events. If a student is **delayed more than two weeks**, he or she must participate in a supervised lab at least once per week. This is to ensure the student maintains an acceptable skill level and is ready to start training in the operating room (O.R.).

ATTENDANCE

- Attendance is **mandatory**. This includes arriving to class and the clinical site on the scheduled time, in appropriate attire, and prepared to report for duty.
- Regular attendance in class and clinical is an obligation assumed by every student at the time of registration.

ABSENCES

- Tardiness = arriving late five minutes after the start of class and/or leaving early regardless of time
- Absence= not present for lecture, lab, and/or clinical assignment
- Tardiness x 3= 1 absence
- Absences x 3 = verbal warning
- Absences x 5 = verbal warning, written warning, deduction of points from grade
- Absences x 7 = disciplinary action, including but not limited to being dropped from the course and dismissal from the program.

College policy states: "When repeated absences place the probability of the student's success in doubt, the professor may drop such a student from the course." Absence means non-attendance for any reason. This is an intensive vocational training program in which information regarding the care of human lives is offered at every class. Any absence may put the student's chance of success at risk. It is the prerogative of the professor to determine when absences are excessive."

Summer	Three (3) absences are allowed.
Fall	Five (5) absences are allowed.
Spring	Three (3) absences per clinical rotation are allowed.
***For every day absent over the limit, the student will have five (5) percentage points subtracted from the final grade for the semester.	

NOTE: If the hospital management finds the absenteeism of the student to be excessive, they may request that the student be removed from training. There is no assurance that another clinical site can be obtained for the student. Therefore, the student may be subjected to disciplinary action including possible dismissal from the program.

TARDINESS

- Frequent tardiness is seen by O.R. managers as unprofessional and can compromise the job of the Anesthesia Technologist.
- Every **scheduled class day**, the student is expected to sign in on the attendance sheet at the beginning of class.
- **Every clinical day**, the student will be expected to document their hours on a time card that will be signed daily by the Operating Room Manager, Anesthesia Technical Supervisor, Anesthesia Technical Manager or Charge Nurse. Time cards are turned into the instructor on a weekly basis.
- Three (3) occurrences of tardiness is an equivalent of one (1) absence.

NOTE: For excessive tardiness and/or failure to notify the Program office BEFORE the start time of class or clinical days, the student will have five (5) PERCENTAGE POINTS subtracted from the next class test. As with any unprofessional behavior, the student will be counseled. If the pattern continues, the student may fail the program.

NOTE: Operating room (O.R.) managers routinely review a student's attendance record before a student is considered for clinical placement.

NOTIFICATION PROCEDURE

If, for any reason, the student finds that s/he will be late or absent from class or the clinical site, said student is expected to:

1. Keep office/cell numbers of the instructors and clinical sites with him/her at all times.
2. Call the office phone or cell number of the Instructors and the Clinical site BEFORE the start of class or the Clinical day and leave a message.
3. Whenever possible, give several days' notice prior to the absence in writing. **Do NOT email the office the day of the absence. O.R. Nurse Managers do not have time to check the email for absent workers. Neither does the Instructor.**

LEAVE OF ABSENCE

For leave of absence (LOA) of greater than a week, the student must request a Leave-of-Absence in writing from the Program Director. Personal Leaves are granted on a case-by-case basis. For Medical Leaves-of-Absence (MLOA), a letter from the student's physician must accompany the request. The letter must describe the malady and the estimated length of time the student is unable to attend school. Prior to his/her return from a Medical Leave-of-Absence, the student must submit a statement from the physician verifying that the student still meets the physical requirements for training in this program. Leaves are granted according to the following and must meet **ALL OF THE FOLLOWING REQUIREMENTS:**

- 1) Student's academic standing and clinical performance are acceptable and the
- 2) Leave will not place the student's standing at risk and the
- 3) Malady does not pose a long-term risk to the student working in the O.R.

BACKGROUND CHECKS/DRUG SCREENING

Due to increased security at hospitals across the nation, the program requires all candidates for this program to submit to a Background Check and Drug Screening. Applications for this service are mailed to the program candidates who must assume the fee of \$98.00. (Note: This service requires the student to submit his/ her Social Security number.) Should there be any criminal history or a

positive drug screen, the Program Director, Allied Health Director, the Division Dean and the Vice Chancellor of Human Resources will review the results. The student will be advised as to his or her status in the program. Be advised that the ingestion of controlled substances such as mood regulators, muscle relaxants, and narcotic analgesics place the student and his or her patient at risk of injury. If a student must take any of these medications for health reasons, they will not be allowed to train in the hospital until they can pass a new drug screening. The background check and drug screening must be completed prior to admission to the first day of the program. If this is not completed by the deadline, the first person on the waiting list will be accepted.

CHANGE OF ADDRESS

It is the responsibility of the student to notify Skyline College and the Anesthesia Technology Program Director, in writing, of a change of address, telephone number or email address.

COMMUNICATION DEVICES

Cell phones are to be **TURNED OFF** in the classroom. The student may answer the cell phone only during a break. Electronic devices are NOT to be used during testing. If a cell phone goes off during a lecture or lab more than one occurrence, the student is subject to disciplinary action, up to and including dismissal of the program. The school is not responsible for the loss of or damage to laptops or other electronic devices.

COURSE SYLLABUS

The syllabus (or class schedule) provides the student with the following information: the date, content of the day's lecture or clinical lab, tests, papers, or speaker. The class schedule may be subject to change with a 24-hour verbal/written notice. Therefore, it is the student's responsibility to keep the syllabus at hand and refer to it daily. Readings assigned for a class must be read **PRIOR** to that class.

DISMISSAL POLICY

Violation of any policies set forth in the Anesthesia Technology Student Handbook and/or Skyline College Catalog will first result in a verbal counseling. If a second counseling is required, the Student and the Instructor will meet with the Director of Allied Health Programs to determine disciplinary action. A written contract of expected behavior or performance may be drawn up and signed by the student. A copy will be placed in the student's records and a copy will be given to

the student. The student shall be placed on probation until the performance criteria, as written in the contract, have been met. Failure to meet the written behavior or performance criteria may be cause for dismissal. The student will be informed in person and in writing of the reasons for his/her dismissal.

DRESS CODE

Students are expected to appear neat and professional at all times in class as well as at the clinical sites. Each clinical site could be a future site of employment or a source for a letter of reference. As representatives of the college and Anesthesia Technology program, students are advised to dress accordingly.

- In lab, students are required to wear the Skyline scrub suit uniform (top and pants)
- In the clinical site, the student shall wear a hospital-provided scrub suit according to the policy of the organization.
- The student is to wear the Skyline College ID badge on the scrub suit while on the hospital premises.
- For the safety of the student, jewelry and valuables are to be left at home. No jewelry is to be worn in the operating room.
- Contact lenses may be worn. For surgical procedures where hazardous fumes may affect contact lenses, regular glasses must be worn.
- Protective eyewear must be worn while the student is scrubbed in addition to eyeglasses.
- No nail polish or artificial nails shall be worn.
- Walking shoes shall be worn in the operating room. Clogs, sandals, and backless shoes are considered unsafe and should not be worn.
- Students are encouraged to wear some type of support hose under scrubs to decrease discomfort and increase endurance.
- Any scented lotions, scented hair products, and strong perfumes cannot be used due to sensitivity and allergies of other patients and staff.
- At the clinical site, student cell phones and other electronics are not allowed in the operating room.

HOURS & LOCATION

1st FALL Semester(August-December)

- ANST 405: Monday 6pm-9pm
- ANST 410 Lecture: Tuesday 8pm-10pm
- ANST 410 Lab: Wednesday 6pm-9pm

Class starts on the hour, just like in the O.R.

SPRING (January- March):

- ANST 415: Monday, Tuesday, Wednesday, Thursday 6pm-9pm

SPRING (March-May)

ANST 425 (Clinical I): Monday, Tuesday, Wednesday, Thursday, Friday

- Hours include two 15-minute breaks and a 30-minute lunch
- Hours are arranged by the clinical coordinator and facility and subject to change.
- Shift hours will vary and depend on clinical site assignment.
- 5 days per week
- 40 hours per week
- 8 weeks

SUMMER (JUNE-AUGUST)

- ANST 430 Lecture: Monday, Tuesday, Wednesday 6pm-7:15pm
- ANST 430 Lab: Monday, Tuesday, Wednesday 6pm-7:15pm

2nd FALL Semester (August-December)

- Hours include two 15-minute breaks and a 30-minute lunch
- Hours are arranged by the clinical coordinator and facility and subject to change.
- Shift hours will vary and depend on clinical site assignment.
- ANST 435 (Clinical II): Monday, Tuesday, Wednesday, Thursday, Friday
 - 3 days per week
 - 24 hours per week
 - 16 weeks

Most lectures are held in the Surgical Careers Center, Building 7, Room 205 on the Skyline College campus, 3300 College Drive in San Bruno unless otherwise noted on the Syllabus. An off-campus field trip assignment may be required and located in one of our Bay Area hospital affiliates. The wise student checks the Syllabus daily for the location of the classes and for reading assignments. Various hospital sites across the San Francisco Bay Area (and beyond) are utilized for Clinical

Experience such as Seton, Peninsula, Stanford, Kaisers, Santa Clara Valley, SF General and others. Therefore, reliable transportation is **mandatory**.

Grading Policy

Grading Scale

Percentage	Letter Grade**	Pass or No Pass*
90 – 100%	A	P
80 – 89%	B	P
70 – 79%	C	P
60 – 69%	D	NP
60% or less	F	NP

* Only ANST 425 and ANST 435 can be taken for a grade of P/NP.

**The guiding principle is that every patient deserves an Anesthesia Technologist who is at least average or above. Therefore, a student with a “D” GPA will not graduate from this program.

Please note: Anesthesia Technology students are expected to behave in a professional manner. This means using effective communication, meeting deadlines and due dates, treating others with respect, and maintaining an excellent attendance record. To reinforce this behavior, points are subtracted from the student’s grades if unprofessional behavior is exhibited. **For each violation of any of the policies regarding behavior or attendance published in this handbook, the student shall have five (5) points deducted from the total grade for the semester**

INCOMPLETES

A grade of Incomplete is given only if the student has not completed his or her ANST 425 and ANST 435 clinical Hours. It is granted on a case-by-case basis according to the rules stated in the Leave of Absence policy. Completion of Extended Training is not to exceed one semester past the graduation date of the class. The Instructor must receive in writing an agreement from the Clinical site verifying their permission to allow the student to extend his/her training. Upon completion of the Extended Training, the Instructor will submit a Change-of-Grade request with Admissions and Records to remove the Incomplete. The graduate will then receive his/ her Certificate of Completion.

QUIZZES AND FINAL EXAMS

Quizzes, exams, and final exams are worth 100 points each. The final exams are comprehensive covering all subject areas for the semester. The final exam will be timed.

WRITING ASSIGNMENTS

Assignments are worth 100 points each. Papers must be typed, APA format, 6th edition, with correct spelling and in the student's own words. Assignments submitted after their due date will be marked down 2 points each day they are overdue.

1. Pharmacology: Student is to prepare a report on an assigned Medication. The written report is submitted to the Instructor and presented to class.

GRADUATION

A student who completes the General Education Requirements to obtain an Associate degree or a Certificate of Completion in Anesthesia Technology is invited to the College Graduation ceremonies. Students who wish to obtain an Associate degree should see a school counselor.

ANESTHESIA TECHNOLOGY PROGRAM COMPLETION CEREMONY

The graduating surgical technologists may choose to celebrate COMPLETION on the college campus in a manner in keeping with the college rules and in respect for the profession of surgical technologists. This may include a semi-formal ceremony with a presentation of certificates. Another option is an informal luncheon off campus. Arrangements for the graduation will be discussed at meetings of the Surgical Technology Club.

CERTIFICATES OF COMPLETION

Upon graduation, the student will receive a Certificate of Completion from the Admissions and Records Department, and a Letter of Recommendation from the Program Director. It is suggested the graduate bring these documents, along with the Final Clinical Evaluation, the Skills Checklist and the Case Tracking Log to any job interview. Job Placement services may be offered through the Counseling Department.

GRIEVANCE PROCEDURE

Should a student disagree with any policy or decision regarding his/her status in the program, s/he may initiate the following procedure for filing a grievance:

Step 1: The grievance shall be presented in writing to the Instructor and the Director of Allied Health Programs within thirty (30) calendar days after the date on which it arises. The Instructor shall reply in writing within seven (7) calendar days after receipt of the grievance.

Step 2: If the grievance is not resolved at Step 1, the student must then submit the written grievance to the Dean of Math/ Science and Technology within seven (7) calendar days after the presentation of the Instructor's reply. The dispute is then handled by the college's grievance procedure. (See the Skyline College Student Handbook).

HEALTH POLICY

APPOINTMENTS

Doctor, dental or other appointments should be made after class or clinical hours. If, under extenuating circumstances, the student must attend an appointment during class hours, the student is expected to notify the Instructor, in writing, prior to making the appointment. NOTE: The student will be training in a Healthcare facility. Therefore, if the student presents with contagious symptoms, s/he is strongly advised to stay home and rest. Examples of contagious symptoms include:

- Fever greater than 100° F
- Excessive cold symptoms (drippy nose and eyes, sneezing)
- Skin eruptions, or recent and/or draining wounds on hands or arms.

If the student is experiencing pain for which over-the-counter medications are ineffective, the student must see a physician and report to the Instructor. The student may NOT train at the Clinical site if he or she must take a controlled substance for pain relief.

Conditions that prevent the student from training at the Clinical Site:

1. An injury that leaves an open or draining wound
2. Pain that must be treated by a Controlled substance (ex: Vicodin, Demerol, etc.) The student may return to training when the wound has formed a scab or the pain medication is no longer

needed. A Dr.'s clearance will be required before the student is allowed to return to training.
(See Attendance Policy)

HEALTH SCREENINGS

Prior to entry into SURG 443, every student must pass a Physical Exam and Immunization Screening. Required screenings include proof of immunity to **all of the following**:

1 Hepatitis B

1 Varicella

1 Measles, Mumps, Rubella (MMR)

1 Tetanus, Diphtheria, Pertussis (TDAP)

NOTE: "Proof" means a blood test (titer) showing immunity.

2. Tuberculosis (TB) clearance by either Two PPD Tests results or QuantiFERON, or chest X-ray.

AND 3. Documented Seasonal Influenza vaccination

HEPATITIS B VACCINATION

The Hep. B immunization series consists of one shot followed in one month by the second shot, followed by the third shot six months later. The student must then obtain a titer (or test) to determine if s/he is "seropositive" (immune). If, after receiving the vaccine series, the student fails to seroconvert from negative to positive, s/he must receive a "booster" and have another titer drawn. If, after the booster, s/he is still not considered immune, the student shall receive counseling by the Instructor about his/her risks working in an O.R. If the student accepts these risks, s/he will be asked to complete a waiver form. A copy shall be placed in the student's record and a copy is given to the student.

SEASONAL INFLUENZA VACCINE

Every year a different version of the Influenza ("Flu") Virus is identified for which Healthcare providers must be immunized. The Student may use the services of his or her own personal physician or use the services offered at the Skyline College Health Center. (See below)

Skyline College Health Center Services Building 2, Room 2209, 650-738-4270.

<p style="text-align: center;">Skyline College Health Center Services Building 2, Room 2209, 650-738-4270</p>

Nurse Practitioner/ Physician Assistant Health Screenings	\$30
Blood Work (Test for Immunity)	At Cost per Test
TB Test x2	\$10/each
Measles, Mumps, Rubella (MMR) Shots	\$10
Varicella	\$10
Tetanus, Diphtheria, and Pertussis (TDAP)	\$10
Hepatitis B (Series)	\$30
Seasonal Flu Shot	FREE

INSURANCE

The San Mateo Community College District maintains professional liability coverage for students participating in the Allied Health occupation programs. In case of injury due to on the job training, the student is also considered an “Employee” of the College District and is, therefore, entitled to Workers’ Compensation benefits.

JURY DUTY

If a student receives a summons for Jury Duty from a Municipal or Superior Court, that student may be excused due to the fact s/he is in a Vocational Training Program. Please see the Instructor for a letter asking for a delay in the assignment until after graduation.

LATEX ALLERGY

Be advised that a large number of products used in the Operating Room contain latex and that working in this environment places the person sensitive to latex at great risk. If it is found that a student is sensitive to latex products, the student must be evaluated by an allergist familiar with the protocols of the Centers for Disease Control and Prevention. The student shall be counseled by the Instructors and provided with a list of products containing latex and their alternatives. A Clinical Site must be found that can make accommodations such that the student’s health would not be at risk while training. If a site cannot be found that can accommodate the latex-allergic student, she or he will not be able to complete the program.

PREPARATION FOR CERTIFICATION EXAM

ANST 440 is an intensive review and prep course offered online towards the end of the program to prepare the class for the National Certification Exam. The class includes a discussion of the cost, application to and eligibility for the exam. The class will also cover test-taking techniques, and assessments. Several noted preparation texts will be reviewed.

OFFICE FACILITIES

The office tools and kitchen appliances are available for student use. The CD Player and LCD projector may be used by permission only. There are computers specifically for the use of students located in the classroom. There are also computers available in Building 6 and in the College Library in building 5.

PROFESSIONALISM

A student in this program is under constant observation by healthcare professionals, patients, and visitors both at the College and at the Clinical Site. Failure to comply with the following rules of behavior may be grounds for dismissal from the program. The student is expected to

1. Abide by the policies of the program as defined in this handbook.
2. Attend all classes and clinical days.
3. Be prompt and prepared to all learning sites, class and clinical.
4. Keep the Instructors and the Clinical Site managers informed as to absence/ tardiness
5. Arrive at each learning site prepared to learn, assigned reading is completed, the student has materials for taking notes, and the student is dressed appropriately.
6. Submit assigned course work or required documentation on its due date.
7. Treat all persons and property with respect.
8. Observe the privacy and confidentiality of all persons.
9. Participate in class discussions and in team projects.
10. Accept constructive criticism to improve skills

The following is a list of behaviors that are considered unprofessional and disruptive. Be Advised: Hospitals may fire an employee who exhibits any of the behaviors listed below. A student shall be subject to disciplinary action including possible dismissal for any of these behaviors including but not limited to:

1. Frequent absences and/or tardiness.
2. Failure to submit documentation on time, or falsifying documentation.
3. Abusive, lewd, foul, or threatening behavior to patients, other students, faculty, or clinical staff members
4. Student was observed to be under the influence of drugs or alcohol.
5. Student was observed committing plagiarism, or cheating, or stealing.
6. Student was observed deliberately damaging College or Hospital property.

PROFESSIONAL AFFILIATION

Students are expected to join the professional organization:

American Society of Anesthesia Technologists and Technicians (ASATT)

- Discounted registration fees for the regional and national conferences
- Website access to the online Anesthesia Technology Sensor
- Voting rights on changes affecting professional standards
- Provide feedback and recommendations surrounding the local and national policies affecting the Anesthesia Technology profession.

RETURNING STUDENTS

A student who is unsuccessful due to academic or nonacademic reasons and wishes to return to the program will be considered for re-entry on the basis of following merits:

1. The student's academic standing, attendance, clinical skills, attitude and behaviors during his or her involvement with the program.
2. Clear reasoning for the student leaving the program including academic, finances, job schedule, home, and family issues.
3. Resolution or the potential for resolution of the reason(s) for leaving the program.
4. Development of a Student Success Plan in order for the student to be considered for re- admission. Resources to help develop this plan may include but are not limited to, academic support, financial aid, academic or personal Counseling, or consultation with the Disability Resource Center as it is applied case by case basis.
5. The faculty and clinical instructor's judgment on the student's potential to successfully complete the classroom and clinical phase of the training.

6. The availability of space and resources in the program.

The decision to allow the student to re-enter the Program shall be at the discretion of the Program Director after consultation with the Director of the Allied Health Programs and the Dean of Math, Science and Technology Division.

The Student Success Plan will be developed in collaboration with program faculty and academic counselor. The student will be notified once the decision has been made and the process for re-entry will be discussed. This will include:

- Review of deficiencies in student performance to stop out within program
- Student success plan strategies including resources to support successfully completion
- Point of re-entry and specific preparation and/or academic/skills demonstrations
- Student responsibilities in carrying out plan

Student will notify Program Director of intention to re-enter program during open application period for subsequent cohort (January 15-April 1). Student will be notified of official re-entry following normal admissions procedures. Student will be expected to attend new cohort orientation and resubmit/update any requested admissions requirements (background check, drug test, physical, and immunization documentation).

The student is responsible for meeting expectations of the plan and will make regular contact with the academic counselor. The Program Director is responsible for monitoring the plan and to assist the student with resources to promote success. If at any given time the Student is non-compliant with the plan, an early alert will be sent activating further student support systems available at Skyline College.

SMOKING

Skyline College is a NON-SMOKING campus. Smoking is prohibited inside healthcare buildings (hospitals and clinics).

STRESS AND THE SURGICAL TECHNOLOGY STUDENT

This course is extremely stressful mentally, physically, and emotionally. Stress has been known to lead to illness and injury. To reduce or prevent the effects of stress, the student is strongly encouraged to adopt the following recommendations:

REST - 6 to 8 hours a night. Stress places an increased demand on the energy reserve.

EXERCISE - 20 minutes of aerobic activity 3 times a week. This helps in three ways: 1) relieves nervous tension; 2) increases strength and endurance needed in the O.R.; and 3) promotes a restful sleep pattern. Simple walking is an aerobic activity.

NUTRITION – 3 healthful meals a day, especially breakfast, to replenish the energy stores tapped by stress. Actuarial research shows that 75% of all industrial accidents happen to people who do not eat breakfast!

DRUGS - Alcohol, caffeine, nicotine and others stress the body and interfere with a restful sleeping pattern. Avoid them.

The student will be practicing in a HIGH RISK ENVIRONMENT, caring for HUMAN LIVES. The Surgical Technology student is, therefore, obligated to obtain adequate rest and nutrition to meet the demands of their practice.

WAVER RELEASE



Photo and Video Release Form

I, the undersigned, give my permission to Skyline College to use my likeness (in still photography and/or video) in college promotional materials and commercials. I do not expect to be paid or compensated in any way for my role in the photography and I release all future rights to the images.

Date: _____

Name: _____

Signature: _____

Address: _____

Phone: _____

Email: _____

Parent Signature (if model is under 18):

Parent Name: _____

Date: _____

Please return this form to the office of Development, Marketing and Public Relations located in Building 4, Room 4329. For more information, please call: 650-738-4346.

WORKER'S COMPENSATION

POLICY AND PROCEDURE FOR STUDENTS INJURED AT THE COLLEGE

If a student becomes ill or is injured while in class s/he should:

1. Report the incident to the Instructor of the Anesthesia Technology Program.
2. Obtain treatment at the Health Center.
3. File an Incident Report with the Instructor within 24 hours of the incident.

POLICY FOR INJURIES OR EXPOSED TO BODY SUBSTANCES AT CLINICAL ROTATION SITE

Definitions: "Body Substances" include tissue and/or body fluids, especially blood and fluids contaminated with blood. "Exposure" means the substance contacted bare or broken skin and/or mucous membranes. The student should:

1. Immediately report accident, injury, needle stick, splash, or other exposure to body substances. Report to the Instructor of the Anesthesia Technology program and the O.R. Manager or Charge Nurse.
2. Follow the hospital's protocol for employees regarding accidents or body substance exposures.
 - a. Obtain treatment
 - b. Complete all mandatory hospital forms (except Worker's Comp)
 - c. Keep copies for your records
 - d. Complete the Anesthesia Technology Program's Incident Report
 - e. Complete Skyline's Workers' Compensation Form
 - f. Submit all forms to the Program Instructor ASAP

If the Chancellor's Office of the San Mateo Community College District accepts the Workers' Compensation claim forms, a copy will be sent to the student. If not, the student is obligated to pay the fees for treatment rendered. The student is advised to keep these forms and any correspondence in a safe place for up to four (4) years. If the healthcare facility where treatment was obtained bills the student, he or she should submit a copy of the Workers' Compensation forms to the hospital billing office. See Appendix E for a sample of the Incident Report.

DIRECTORY

Department of Science, Math, and Technology (SMT)	Office (650) 738 – 4221 Fax (650) 738 – 4299
Raymond Hernandez Dean of Science, Math, and Technology	Office (650) 738 – 4354
Alyssa Wong-Conway Program Services Coordinator	Office (650) 738 - 4310
Diane Alejandro-Harper Director of Anesthesia Technology	Office 650-738-4221 Cell (650) 283-2558 Email AlejandroHarperD@smccd.edu
Jack Chen Assistant Professor, Anesthesia Technology	Cell (650) 683-5693 Email ChenJ@smccd.edu
Alice Erskine Director of Surgical Technology	Office (650) 738 – 4470 Cell (510) 427 – 9148 Email Erskine@smccd.edu
Mary McKay Instructor, Surgical Technology	Office (650) 738 – 4416 Email MckayM@smccd.edu
Marsha Hurst Assistant Professor, Anesthesia Technology	Cell (650) 388-0371 Email HurstM@smccd.edu
David Foster Adjunct Faculty, Anesthesia Technology	Cell (619) 289-1275 Email FosterD@smccd.edu

Note: Please, make every effort to discuss your concerns during regular office hours (0800-1700).
KEEP the phone numbers of the instructors handy in case of an emergency.

**Clinical Practice for Anesthesia Technology
EVALUATION**

Student Name: _____
Date: ____/____/____

Students must demonstrate independent practice at the level of an advanced-beginner with more than 90% of the clinical decision making. The student has now completed 16-weeks in the operating room. What is their level of proficiency?	Good – Excellent	Fair – Acceptable	Needs Improvement
Knowledge of Surgical Procedures	1. 2. 3. 4. 5.		
Aseptic Technique and Safety	Independent	Minimal Assistance	Needs Improvement
Preoperative Tasks	Independent	Minimal Assistance	Needs Improvement
Intraoperative Tasks	Independent	Minimal Assistance	Needs Improvement
Postoperative Tasks	Independent	Minimal Assistance	Needs Improvement
Professionalism	Independent	Minimal Assistance	Needs Improvement
Potential for employment	Yes	No	Needs More Practice
Preceptor Name/s: _____ Reviewed by: _____ Student Signature: _____	Student Comments:		

