

SURGICAL TECHNOLOGY PROGRAM

Course Syllabus

Biomedicine

Fall 2003

1. Course Number:
2. Course Title: Biomedicine
3. This course is designed to provide the student with the knowledge of how to function in the health care setting. Students will gain knowledge of the machines and technology necessary to function as a surgical technologist in today's operating rooms

Students will gain an understanding of the principles of electricity, physics, LASERs, endoscopy and a variety of other machines used in surgery.
4. A course requirement for: Surgical Technology Program
5. Primary Purpose: To provide the student with the skills and knowledge necessary to define and evaluate job tasks, safe patient care and interpersonal relationships as they relate to other surgical team members.
6. Requirement for: Certificate of Proficiency
7. Relationship of course to district objectives: To maintain an effective program, which will provide the student with resources to develop skills necessary to achieve their educational goals and to offer a certificate that provides the student with a marketable career in the health care field.
8. Course Prerequisites: Admission to (school name) and admission to the Surgical Technology Program.
9. Course Co-requisites:
10. Course Prerequisites:
11. Projected Enrollment: 19 students
12. This course will meet on Tuesday, Thursday and Friday mornings from 9:00 a.m. until 12:00 noon and on Wednesday mornings from 9:00 a.m. until 11:00 a.m.
13. Anticipated Frequency of Course Offerings: Fall semester only

Learning Objectives

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

1. Understand the principles of electricity and physics.
2. Practice safe medical practices with electricity, LASERs and endoscopy.
3. Apply the principles of physics to the machines encountered in the operating room.
4. Use and operate the microscope.
5. Obtain a working knowledge of a variety of machines used in the operating room.

Course Outline:

Week 1 Electricity

Chapter exam

Weeks 2-3 Physics

Chapter exam

Week 4 Robotics

Chapter exam

Final exam—November 13

The above schedule may change to accommodate student-learning needs.

Classroom handouts with specific objectives, readings and other assignments may accompany each lesson.

Teaching Methods

1. Lecture
2. Discussion
3. Textbooks
4. Handouts
5. Group projects
6. Audio-visual
7. Computer programs
8. Guest speakers

Rubric

<u>Task</u>	<u>Total Points Possible</u>	
Chapter exams (100 pts. each)	aprx. 300	
Final exam	200	A= 93-100%
Participation	aprx. 50	B= 83-92%
Homework	aprx. 50	C= 75-82%
Research paper	100	
Aprx. Total		700

Exams

Chapter exams will be for material in that chapter only. Quizzes may be given periodically throughout the semester. The final exam will be comprehensive from the beginning of the class.

Make-up tests **must** be taken within three (3) days of the students return to school or zero points will be awarded.

Test results will be returned to the student within one week from the day the test is given. Review of test will be given during class time or on an individual basis.

Attendance

Students are expected to follow the policies set forth in the Surgical Technology Handbook. Students can receive one bonus point each day if they are in attendance for the entire class.

Participation

Active participation through group projects and daily discussion will be utilized. The amount of points awarded will vary with each given task.

Homework

All homework should be turned in on time (at the beginning of class). Points will be deducted for each day that it is late.

- 1 day late=5% deduction
- 2 days late=8% deduction
- 3 days late=10% deduction
- 4 or more days late=50% deduction

Research paper

See attached rubric

Text, Reference, Supplementary material

Required: Price, P. (Ed.). (2004). Surgical technology for the surgical technologist: A positive care approach (2nd ed.). Albany, NY: Delmar Thompson Learning.

Phillips, N. F. (2004). Berry & Kohn's operating room technique. (10th ed.) Philadelphia: Mosby.

Price, P, & Frey, K. (2002). Technological sciences for the operating room. Centennial, CO: Association of Surgical Technologists.

Anderson, D. M. (Ed.). (2002). Mosby's medical, nursing, & allied health dictionary (6th ed.). St. Louis: Mosby.

Additional reference materials are available in the school library.

Office hours-instructor

(Instructor's name and contact information)

Rubric for essay on history
Biomedicine

Task	possible points	your score
Topic approved by instructor	5	
Persons name clearly stated	5	
Their contribution to medicine	40	
Why this is important to the Surgical Technologists today	20	
Proper grammar (1 pt. deduction for each error)	10	
Proper medical terminology (1 pt. deduction for each error)	10	
Proper format (typed, double-spaced, 12-font, 1" margins, 2 page minimum)	10	
total	100	

This is due at the beginning of class on the day of the final exam.