Stony Brook University
School of Health Technology and Management
Health Science Program
Spring 2013
Professors: Dr. Maria Lagade and Dr. Linda Cimino

HAN 485: Clinical Monitoring – (1 credit)
Wednesdays, 9:30am – 12:30pm, Classroom 158, Level 2

Description:
This course is designed to provide students with a working knowledge of clinical monitoring devices and their application to the clinical setting in which they are being used. Students will be instructed on their duties to provide technical support to the professional staff to facilitate anesthesia department function. Through the use of lecture and hands-on demonstration, students will develop the necessary skills to maintain and organize the anesthesia environment, equipment and supplies.

Goal:
To provide students with the knowledge of clinical monitoring devices and their appropriate clinical application required of an anesthesia technologist, thus enabling them to function as part of the anesthesia care team.

Course Objectives: Upon completion of this course, students will be able to:
1. Describe the organization of the anesthesia environment.
2. Explain rationale for invasive monitoring based on daily operating room (OR) schedule.
3. Prepare and assemble the necessary equipment for invasive lines.
4. Describe how to assist in preparation and draping of patient for invasive lines.
5. Recognize two cardiac dysrhythmias.
6. Explain significance of pulse oximetry readings.
7. Name three temperature measurement sites and differences between them.
8. Explain importance of output/intake monitoring.
10. Describe one trouble shooting method for continuous alarming.

Required Text:
Miller, Basics of Anesthesia, 6th edition, Saunders

Teaching Strategies: 
Lecture
Hands-on Demonstration

Evaluation:
Participation 10%
Final Exam 90%
**Americans with Disabilities Act**
If you have a physical, psychological, medical or learning disability that may impact your course work, please contact Disability Support Services, ECC (Educational Communications Center) Building, room 128, (631) 632-6748. They will determine with you what accommodations, if any, are necessary and appropriate. All information and documentation is confidential. Students requiring emergency evacuation are encouraged to discuss their needs with their professors and Disability Support Services. For procedures and information, go to the following web site. http://www.ehs.sunysb.edu/fire/disabilities/asp

**Academic Integrity**
Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty are required to report any suspected instances of academic dishonesty, as per the SHTM Academic Policies and Procedures.

**Critical Incident Management**
Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of Judicial Affairs any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn. Faculty in the HSC Schools and School of Medicine are required to follow their school specific procedures.

**Blackboard**
Blackboard is a web-based course management system. Students will find all course documents and announcements on Blackboard. All currently registered students have blackboard user accounts. You will see this course listed when you log into Blackboard. Visit the website to access the class (your classes using blackboard will be listed). You will log in using your Net ID and your Password/your Stonybrook ID number. You should have received instructions at registration as to how to choose and set your Net ID, as this is identification you use to access Solar System as well. You are required to check Blackboard each week. While logged into Blackboard, students must check their personal information to ensure that the email address is current.
Course Outline:

Session 1
- Introduction; Overview; Standard Monitoring; Electrocardiogram (EKG)
- Bispectral Index (BIS); Somatosensory Evoked Potential (SSEP); Electroencephalogram (EEG); and Nerve Stimulator
- End-tidal carbon dioxide concentration in the expired air (ETCO2); Pulse Oximetry

Session 2
- Blood Pressure Monitoring: Invasive/ Non-Invasive
- Swan-Ganz, Central Venous Pressure (CVP)
- Transesophageal Echocardiogram (TEE); Bronchoscopy; Doppler

Session 3
- Cardiopulmonary Bypass (CBP); Intraaortic Balloon Pump (IABP)
- Temperature Regulation (measurement sites, bear hugger, FF, lights, rapid infuser, blood warmer)
- Output via Foley Catheter, Suction, Hemovac/ Intake via Pumps (IMED, Bard)

Session 4
- Cell Saver
- Equipment Failure: Contingency Plans
- Alarms: Trouble Shooting

Session 5
- Final Exam