**BOARD OF REGENTS**

**STATE OF IOWA**

**REGENT MERIT SYSTEM**

**Class Title: Extracorporeal Technician (Heart/Lung) Class Code: 3326**

 **Pay Grade: 411**

**GENERAL CLASS DESCRIPTION:**

Under direct supervision, assists in patient care in heart-lung total body perfusion for the Thoracic and Cardiovascular Division of the Department of Surgery.  Performs emergency cardiac and other perfusion procedures on an on-call basis.  Provides functional supervision over other laboratory workers.

**CHARACTERISTIC DUTIES AND RESPONSIBILITIES:**

1. Participates in direct patient care during cardiac surgery by providing total or partial body perfusion, with desired temperature control and maintenance of pressure measurements as well as other pertinent data.
2. Prepares the heart-lung machine for use in surgery by assembling the oxygenator and tubing using sterile technique.
3. Operates the heart-lung machine during open heart procedures in the operating room with assistance or independently as necessary.
4. Disassembles and cleans, by mechanical and chemical means, heart-lung machine and equipment, following surgery.
5. Assembles all necessary tubing and equipment for sterilization and supervises sterilizing procedures.
6. Calibrates the pump heads by determining occlusion setting and the flow rate for various RPMs of the pump.
7. Prepares the heparin and protamine dosages for the patient under direction of surgeon, including activated clotting time studies.
8. Participates in research laboratory procedures involving any extracorporeal circulation techniques.
9. Assists in performing tests on animals for experiments in the research laboratory.
10. Assists in regional perfusion techniques for cancer chemotherapy in the General Surgery Department.
11. Assists in the sterile set-up and operation of a recirculation pump system for the treatment of spinal cord trauma in the Neurosurgery Division.
12. Participates and assists in research and clinical use of long-term pulmonary perfusion support, i.e., the membrance oxygenator, and with left ventricular assist devices, i.e., the intra-aortic balloon pump.
13. Is familiar with the calibration and operation of the Beckman Dynograph recorder and blood flow transducers in clinical and laboratory application.

**KNOWLEDGE, SKILLS, AND ABILITIES:**

1. Knowledge of necessary equipment inventory for daily operation.
2. Knowledge of heart-lung perfusion machines.
3. Knowledge of maintaining sterile components.
4. Knowledge of maintenance needs for heart-lung machine and equipment.
5. Skill in operating auto-transfusion and rapid infusion devices.
6. Skill in setting up heart-lung machines.
7. Skill in maintaining a proper inventory of supplies.
8. Skill in preparation of reusable items for sterilization.
9. Ability to communicate with and understand instructions from physicians and perfusionists.
10. Ability to withstand long hours in the operating room.
11. Ability to think clearly and rapidly in emergent situations.

**MINIMUM ELIGIBILITY REQUIREMENTS:**

1. Associate degree in health science technology from an accredited school or two years of college level physical or natural science course, and
2. Two years of health care experience.

H:(hr/classdes)3326 **REVISION EFFECTIVE: July 1, 1989**