

**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, assist 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. Prepares 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 and supervises sterilizing procedures.
6. Calibrates the pump heads by determining occlusion setting and the flow rate for various RPM's of the group.
7. Prepares the heparin and protamine dosages involving any extracorporeal circulation techniques.

The tasks listed under the heading of Characteristic Duties and Responsibilities are examples of the variety and general nature of duties performed by employees in positions allocated in the class. The list is descriptive only and should be used for no other purpose. It is not intended that any position include every duty listed, nor is it intended that related duties cannot be required.

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8. Participated in research laboratory procedures involving any extracorporeal circulation techniques.
9. Assist in performing tests on animals for experiments in the research laboratory.
10. Assist in regional perfusion technique 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 assist in research and clinical use of long-term pulmonary perfusion support, i.e., the membrane oxygenator, and with left ventricle assist devices, i.e., the intra-aortic balloon pump.
13. Is familiar with the calibration and operation of the Beckman Dynography recorded and blood flow transducers in clinical and laboratory applications.

**KNOWLEDGES, 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 of heart-lung machine and equipment.
5. Skill in operating auto-transfusion and rapid infusion devices.
6. Skill in setting up heart-lung machine.
7. Skill in maintaining an inventory of supplies.
8. Skill in preparing 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.

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**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.

**REVISION EFFECTIVE: July 1, 1989**