

## SENIOR ENGINEER (BIOMEDICAL)

DISTINGUISHING FEATURES OF THE CLASS: Under the general supervision of the Director of Biomedical Services, the incumbent of this class functions as the Assistant Director which includes directing, supervising and coordinating the day-to-day operations of the Biomedical Engineering Services Division of the Westchester County Medical Center. Responsibilities include the technical aspects of ensuring the proper functioning, upkeep and maintenance of all biomedical equipment, including integrated monitoring networks, used at the Medical Center and staff scheduling to ensure adequate coverage for the 24-hour, 7-day a week service. This involves coordinating and supervising specification formulation, pre-purchase evaluation, testing, installation and configuration of systems, calibration, preventive maintenance, repair, and utilization review to ensure optimum usage. Responsibility also involves coordinating the services of the Division with scheduling and utilization requirements of other Medical Center divisions such as: Radiology, Laboratories, Surgery, Renal Center, Burn Center, Emergency Room, Critical Care Units and other professional, nursing, allied health care and administrative staff. Supervision is exercised over a number of professional, technical and clerical personnel. Does related work as required.

### EXAMPLES OF WORK: (Illustrative Only)

Directs and coordinates the day-to-day operation and administrative functions of the division;

Maintains responsibility for optimum use of all biomedical equipment and systems, including integrated monitoring networks, used at the Medical Center;

Develops and implements operational procedures and practices to ensure the availability, optimum usage, and safety compliance with established codes and standards set by the applicable regulatory agencies;

Provides technical support to keep all biomedical equipment and systems operating safely at all times including routine situations or clinical emergencies;

Develops and implements routine tests for assigned clinical equipment including preventive maintenance procedures, proper documentation and follow-up for regulatory inspections;

Participates in developing the criteria for new equipment purchases and conducts the required tests, etc.;

Performs inspections of all new incoming biomedical equipment to ensure compliance with purchase specifications and safety regulations;

Assists physicians and other allied health care professionals in analysis and operation of biomedical devices, equipment and networks as required;

Develops and conducts staff education programs for nursing, physicians and other allied health professionals as required;

EXAMPLES OF WORK: (Illustrative Only) (Cont'd.)

Monitors compliance with all hazard notifications and ensures corrective actions, when required, for all biomedical equipment;

Attends conferences, service schools, seminars and meetings as required.

REQUIRED KNOWLEDGE, SKILLS, ABILITIES AND ATTRIBUTES: Thorough knowledge of the operation of biomedical equipment and instrumentation; thorough knowledge of computerized biomedical monitoring and network systems; thorough knowledge of physical design concepts and space utilization in a health care facility; through knowledge of the operation, repair and safety considerations of biomedical equipment and instrumentation; thorough knowledge of government standards and regulations, and technological developments in the field of biomedical engineering and instrumentation; thorough knowledge of the utilization of biomedical equipment in the treatment, evaluation, and diagnosis of patients; good knowledge of hospital safety procedures; ability to plan and supervise the work of engineers and technicians; ability to plan and implement biomedical equipment and systems methodologies; ability to establish and maintain effective working relationships with administrators, clinical directors and other hospital personnel; sound judgment; initiative; tact; accuracy; thoroughness; physical condition commensurate with the requirements of the position.

MINIMUM ACCEPTABLE TRAINING AND EXPERIENCE: A Bachelor's Degree\* in Biomedical or Electrical Engineering and either: (a) six years of experience, three of which must be post-Bachelor's\*, in the design, operation, repair and maintenance of electrical, electronic and computerized biomedical equipment and instrumentation, two of which must have been at the supervisory level in a large health care facility, or a facility which manufactures or services biomedical equipment; or (b) A Master's Degree\* in Biomedical Engineering, Electrical Engineering or Electronics and five years of experience as stated in (a), three of which must be post-Bachelor's\*, and two of which must have been at the supervisory level in a large health care facility, or a facility which manufactures or services biomedical equipment; or (c) a satisfactory equivalent combination of the foregoing training and experience.

SUBSTITUTION: 60 credits\* toward a Ph.D. in Biomedical Engineering, Electrical Engineering or Electronics may be substituted for two years of the required experience, but not for the two years of supervisory experience. A Master's Degree\* in Computer Science may be substituted for one year of experience, but not for the supervisory experience.

\*SPECIAL NOTE: Education beyond the secondary level must be from an institution recognized or accredited by the Board of Regents of the New York State Education Department as a post-secondary, degree-granting institution.

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