***This old UMB job description was created between 2000 and 2014 and is being provided as a template or guide in the preparation of a current job description. The essential functions are general in nature and may not accurately depict the duties of a specific unit. Managers are encourage to update and provide specific duties that are applicable to work being performed in the unit.***

Job Title: **Medical Physicist**

Job Family: Environmental Health & Safety Sub Family: Safety - Radiation

**Job Summary:**

The Medical Physicist, Diagnostic Radiology provides physics support for both preclinical and clinical environments of research involving studies using diagnostic radiology, nuclear medicine, ultrasound, and MRI.

**Essential Functions:**

* Design and develop software for medical diagnostic and clinical instrumentation, equipment, and procedures, using the principles of engineering and bio-behavioral sciences.
* Develop techniques to image various biological processes including metabolic changes through computer simulation, and pulse sequence development. Adapt or design computer hardware or software for medical science use.
* Diagnose and interpret imaging data, using signal processing techniques.
* Evaluate the safety, efficiency, and effectiveness of biomedical equipment.
* Advise and assist in the application of instrumentation in clinical environments.
* Write appropriate documentation describing protocols/standards for use of instrumentation that will include maintenance, calibration, and repair of specific sequences.
* Assist Principal Investigator (PI) with research efforts, share research findings by writing scientific articles or by making presentations at scientific conferences. Prepare reports or recommendations, based upon research outcomes.
* Assist undergraduate or graduate students or supervise their research when using research equipment.
* Performs other duties as assigned.

**Minimum Qualifications**

Education: Masters Biomedical engineering, Medical physics, Electrical engineering or discipline appropriate to position required.

Experience: Five (5) years Five (5) years of related experience with at least three (3) years in specialization or directly related field.

Supervisory:

Licensure/Certification:

Other: No subsitution of experience for minimum education requirement.

**Knowledge, Skills, and Abilities**

*Managers may provide prefered knowledge, skills, and abilities as necessary.*

Job Code: E3336G

SOC Code: 192012 IPEDS: Computer

EEO6 Code: Professional State Code: 9546102

USM eCode: E30333 AAP Code: 3A