***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: **Engineer, Mechanical**

Job Family: Design & Construction

Sub Family: Design Engineering

**Job Summary:**

Responsible for designing moderately complex HVAC, fire protection, and plumbing systems for building renovations, including research laboratories, academic spaces, and offices. Responsible for identifying user requirements, conducting thorough field survey.

**Essential Functions:**

* Review client standards, specifications and other documentation to determine mechanical engineering, fire protection, and plumbing requirements. Prepare budget level and detailed cost estimates and schedules for new projects. Estimate work effort and duration.
* Design HVAC, fire protection, and plumbing systems using industry standard practices and techniques to ensure that the needs of the client are met. Estimate work effort and durations within discipline to assist in preparing fee proposals for design services.
* Estimate cost and duration of construction within design discipline at various stages of design, including budget estimating at project initiation through final design documents.
* Utilize CAD software to design and produce engineering drawings for bidding and create engineering specifications to suit the needs of the project and to meet the requirements of the UMB Design Standards and Architecture/Engineering Procedure Manual.
* Review and correct drawings to ensure proper engineering techniques and required specifications have been utilized, and to ensure that the design is in compliance with the requirements of the UMB Design Standards and Architecture/Engineering Procedure Manual.
* Perform engineering analysis and feasibility studies, conduct building assessments, and provide technical assistance to other team members. Write and edit reports to summarize results of analyses and assessments, and to provide recommendations and conclusions.
* Inspect work under construction to insure compliance with the construction documents and contract requirements.
* Perform all construction phase services, including reviews and mark-ups of product submittals, shop drawings, request for information, construction schedules, change order proposals, contractor invoices, etc. Prepare supplemental instructions and constructive criticisim.
* Performs other duties as assigned.

**Minimum Qualifications**

Education: Bachelors in Engineering

Experience: Five (5) years mechanical engineering experience

Supervisory:

Licensure/Certification: Registered and licensed with the Maryland Board for professional Engineers preferred.

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: E1001E

SOC Code: 172141 IPEDS: Computer

EEO6 Code: Professional State Code: 9533507

USM eCode: E40104 AAP Code: 3A