GENERAL CLASS DESCRIPTION:

Demonstrates Master Electrician qualifications, training, experience, and technical knowledge to properly plan, lay-out, and supervise the installation of electrical wiring, apparatus and equipment for light, heat, power and other purposes. Utilizes special equipment, tools and processes (such as power quality analyzers, insulation testers, thermal imaging cameras and Thermal/Infrared (TIR) Predictive Testing procedures) to collect, perform advanced diagnostics, analyze, and respond to data collected through established guidelines and procedures for preventive and predictive maintenance to ensure system reliability and system optimization.

CHARACTERISTIC DUTIES AND RESPONSIBILITIES:

1. All Electrician I installation, repair, and maintenance requirements.

2. All Electrician II responsibilities for coordination and accomplishment of maintenance and operations work.

3. Performs advance diagnostics and analyzes system performance to ensure system reliability and optimization.

4. Investigates methods and equipment to be used in electrical systems and makes recommendations to engineers.

5. Designs, installs and troubleshoots electrical control systems including lighting, programmable controllers, and heating and cooling system programmable controllers.

6. Designs, programs, installs and commissions various control systems.

7. Installs, maintains, troubleshoots and repairs electronic systems and components.

KNOWLEDGE, SKILLS, AND ABILITIES:

1. Knowledge of safety precautions mandated by OSHA, NFPA, NEC, and the EPA.

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.
2. Knowledge of the occupational hazards and safety precautions of the trade.

3. Ability to analyze system problems and recommend system changes.

4. Ability to implement system changes.

5. Ability to maintain system documentation.

6. Ability to train and instruct in the duties peculiar to, and normally required in, the trade of electrician, demonstrating recognized procedures and techniques for such work.

7. Ability to communicate effectively oral and written instructions, details, and expectations.

8. Knowledge of the principles, methods, and techniques used in electronic systems.

9. Ability to design, install and troubleshoot control systems including lighting, programmable controllers, and building heating and cooling system programmable controllers.

10. Ability to design, program, install and commission various control systems.

11. Knowledge of processes and procedures related to the design and construction coordination for new and remodel/repair projects.

12. Ability to work in all types of environmental conditions or areas where there is exposure to excessive noise, dirt, fumes and at elevated heights from ladders, scaffolds, or hydraulic lifts.

13. Ability to work independently during normal work hours and after hours.

**MINIMUM ELIGIBILITY REQUIREMENTS:**

1. Requires a State of Iowa Class A Master Electrician license with four years as an apprentice plus four years of experience as a journeyman electrician; or

2. State of Iowa Class B Master Electrician license with ten years in the electrical trade in maintenance or construction.

3. Must possess a valid driver's license and meet University's Fleet Safety Program.

REVISION EFFECTIVE: July 1, 2014