



Code: 5812

Family: Technical Engineering

Service: Operation and Construction

Group: Engineering, Designing, and Structural

Series: Electrical Engineering

CLASS TITLE: ELECTRICAL ENGINEER II

CHARACTERISTICS OF THE CLASS

Under immediate supervision, the class performs entry-level professional electrical engineering work related to the design, installation, maintenance, and inspection of electrical equipment and systems; and performs related duties as required

ESSENTIAL DUTIES

- Surveys project location to identify existing utilities, systems and equipment and take field notes
- Drafts preliminary technical drawings, specifications of electrical systems to ensure that installation and operations conform to standards
- Prepares design plans detailing electrical power, equipment, material and labor needs and prepares estimates of related costs
- Performs calculations to determine electrical power distribution, luminance and voltage levels
- Orders components and parts to replace or repair broken electrical equipment
- Conducts field inspections of work in progress to monitor compliance with contract specifications, check materials and equipment and evaluate changes in construction plans
- Inspects new electrical systems and equipment for conformance to plans and specifications and recommends modifications to ensure compliance
- Meets with construction contractors and utility companies to coordinate electrical construction work and resolve electrical engineering problems
- Prepares reports on the status of electrical engineering projects
- Maintains records of inspections, permits, work orders, and related documentation

NOTE: *The list of essential duties is not intended to be inclusive; there may be other duties that are essential to particular positions within the class.*

MINIMUM QUALIFICATIONS

Education, Training, and Experience

- Graduation from an accredited college or university with a Bachelor's degree in Electrical Engineering or a directly related field of engineering

Licensure, Certification, or Other Qualifications

- None

WORKING CONDITIONS

- General office environment

EQUIPMENT

- Standard office equipment (e.g., telephone, printer, photocopier, fax machine, calculator, adding machine)
- Computers and peripheral equipment (e.g., personal computer, computer terminals, hand-held computer)

PHYSICAL REQUIREMENTS

- No specific requirements

KNOWLEDGE, SKILLS, ABILITIES, AND OTHER WORK REQUIREMENTS

Knowledge

Some knowledge of:

- *applicable electrical engineering theories, principles, methods, and procedures
- *electrical system installation and maintenance methods
- *procedures and methods for monitoring and maintaining related equipment and instruments
- *applicable computer software packages and applications
- project management principles, methods, practices, and procedures

Knowledge of applicable City and department policies, procedures, rules, and regulations

Skills

- **ACTIVE LEARNING** – Understand the implications of new information for both current and future problem-solving and decision-making
- **ACTIVE LISTENING** - Give full attention to what other people are saying, taking time to understand the points being made, ask questions as appropriate, and not interrupt at inappropriate times
- **SYSTEMS ANALYSIS** - Determine how a system should work and how changes in conditions, operations, and the environment will affect outcomes
- **QUALITY CONTROL ANALYSIS** - Conduct tests and inspections of products, services, or processes to evaluate quality or performance
- **TROUBLESHOOTING** - Determine causes of operating errors and decide what to do about it

Abilities

- **COMPREHEND ORAL INFORMATION** - Listen to and understand information and ideas presented through spoken words and sentences
- **SPEAK** - Communicate information and ideas in speaking so others will understand
- **COMPREHEND WRITTEN INFORMATION** - Read and understand information and ideas presented in writing
- **WRITE** - Communicate information and ideas in writing so others will understand
- **REASON TO SOLVE PROBLEMS** - Apply general rules to specific problems to produce answers that make sense
- **MAKE SENSE OF INFORMATION** - Quickly make sense of, combine, and organize information into meaningful patterns
- **REACH CONCLUSIONS** - Combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events)

All employees of the City of Chicago must demonstrate commitment to and compliance with applicable state and federal laws, and City ordinances and rules; the City's Ethics standards; and other City policies and procedures.

The City of Chicago will consider equivalent foreign degrees, accreditations, and credentials in evaluating qualifications.

* May be required at entry.

City of Chicago
Department of Human Resources
February, 2017