Class Concept

This is highly skilled work in the maintenance and repair of complex electronic systems or developmental work in the modification, design and installation of electronic devices and systems. Positions design and construct specialized one-of-a-kind electronic devices. Design work is differentiated from that of the Electronics Technician I level by less reliance on standard circuitry and modification to it, and more reliance on the utilization and modification of standard circuitry to perform special, new or unusual functions. Positions in this class may consult with faculty members desiring the construction of electronic teaching or research devices to determine project parameters. Maintenance and repair are performed on devices designed and on electronic systems where troubleshooting difficulties are compounded by individual, complex devices which are interconnected. Documentation in the form of schematic diagrams, wring diagrams, or repair manuals is often fragmented or non-existent. Work is evaluated through the effectiveness of projects designed and constructed, and analysis of equipment reliability.

Recruitment Standards

Knowledge, Skills, and Abilities

- Considerable knowledge of electronic principles.
- Considerable knowledge of mathematical principles as applied to electronic circuit and analysis.
- Considerable knowledge of the fundamentals of physics as applied to electronics.
- Working knowledge of the uses of standard and specialized electronic testing equipment.
- Ability to modify electronic circuitry or design electronic circuits to perform unusual or innovative functions.
- Ability to perform maintenance on non-standard electronic devices and the most complex electronic systems which are often not well documented or when effectiveness and speed of repair are necessary.
- Ability to develop innovative electronic troubleshooting and testing procedures.
- Ability to read and comprehend electronics periodicals and textbooks on electronics advances and apply new theories and components to design work.

Minimum Education and Experience

Associate's degree in electronics from an appropriately accredited institution and two years of progressive experience in the repair and maintenance of complex electronic systems including some responsibility for the design of electronic apparatus; or an equivalent combination of training and experience. Based on the nature of work performed, may require appropriate licensure by the governing board or commission

Note: This is a generalized representation of positions in this class and is not intended to identify essential functions per ADA.