Effective Date: July 1, 2015

ELECTRONIC TECHNICIAN - RESEARCH
TITLE SERIES DEFINITIONS

I. DEFINITIONS

ELECTRONIC TECHNICIAN - RESEARCH

Under close progressing to limited supervision, positions are responsible for fabricating and maintaining complex electronic equipment used for research projects, classroom demonstrations, and/or instructional laboratories.

ELECTRONIC TECHNICIAN - RESEARCH SENIOR

Under general supervision, positions are responsible for fabricating, designing, and maintaining complex electronic equipment used for research projects, classroom demonstrations, and/or instructional laboratories. Job duties include consulting with faculty, researchers, engineers, and/or graduate students regarding proposed instrumentation systems; recommending designs and/or selection of instructional equipment based upon specifications; evaluating plans and schematics and suggesting changes or improvements; determining whether to fabricate or purchase equipment; constructing and/or integrating sensors and control circuits into instrumentation systems; inspecting and testing final assembly; troubleshooting; and maintaining electronic instrumentation. Positions may also develop, fabricate and maintain mechanical and hydraulic-mechanical equipment used for research and instructional purposes. Positions oversee shop activities, and assist student helpers, temporary staff, academic staff and faculty and may act as a lead worker for entry level positions. Positions must apply advanced maintenance and repair techniques and electronics circuit theory and practice for analog and digital equipment, test equipment and procedures, shop management, and advanced computer skills used in interfacing, troubleshooting, and calibrating equipment, preparing reports, and maintaining data bases. Examples of some equipment used include: complex electronic digital and/or analog circuits and systems for electrical engineering applications to industry-wide factory standards, converter cards, biomedical equipment, network analyzers, spectrum analyzers, oscilloscopes, gas chromatographs, digital multimeters, amplifiers, high voltage or high current power supplies for piezo-electric transducers, visible and infrared lasers, chemical analysis systems and instruments, fast circuitry with wide bandwidths, optical and/or complex vacuum and mechanical systems, high speed and ultracentrifuges, high pressure liquid chromatography systems, ion gauge controllers, magnetic field control systems, linear switching and uninterruptable power supplies, electrophoresis cells, pulse/signal generators, operant test chambers, nuclear magnetic resonance machines, atomic absorbence spectrophotometers, and/or equipment of comparable technical complexity.

II. QUALIFICATIONS

The qualifications required for these positions will be determined at the time of recruitment.

III. RELATED POSITIONS

Electronic Technician – Specialized
Electronic Technician – Agency
Electronic Technician - Security