POSITION PURPOSE
Perform specialized scientific technical procedures in the preparation of cells, solutions, reagents, tissue and organ specimens for examination and experimental test and study to support research initiatives and laboratory instruction within a School or College at the University. Work activities necessitate specialized skills and proficiency in the operation of complex scientific equipment utilized in experimental investigation.

ESSENTIAL JOB FUNCTIONS
- Prepare cells, solutions and reagents for experimental tests and investigation. Conduct complex research tests and procedures, such as purification, SDS gel and buffer agarose gel preparation. Operate scientific technical testing equipment, e.g. centrifuge, collector, counter, gel unit, balance, spectrophotometer, microscope, computer, etc.

- Prepare tissue sections for examination in a research and teaching laboratory. Select, fix, process, embed, section, stain and mount-tissue sections in accordance with laboratory practices and electron microscopy. Perform special staining, dehydrating and impregnating techniques in slide preparation for experimental study.

- Receive tissue specimens from surgical and diagnostic cases, e.g. renal biopsies. Attend renal biopsies and assure proper selection of tissue samples. Maintain appropriate records which include establishing a registry and codification system to identify tissue specimens.

- Record, tabulate and summarize experimental test procedures and findings. Consult with principal investigator, faculty or research personnel regarding experimental procedures, methods and test results; assist with research projects and experiments as needed. Maintain on-line and/or hard copy record of laboratory protocols, tissue specimens, experimental tests, incoming orders and test results.

- Maintain and monitor laboratory equipment and supply inventory; order and recommend procurement of laboratory supplies, e.g. testing agents, solutions and chemicals; contact appropriate vendor representative for repair and general purchase and maintenance of equipment; perform minor adjustments on laboratory equipment. Clean laboratory supplies and equipment.

- Coordinate operational activities of laboratory. Monitor laboratory schedules and procedures to ensure flexibility in handling multiple and varied experimental tests and research procedures.
- Perform related work as assigned.

**ADDITIONAL COMMENTS**
This classification level is designed to perform specialized technical procedures operating complex laboratory equipment and scientific apparatus preparing cells, solutions, reagents and specimens for experimental test and study in a teaching and research laboratory facility. Work activities necessitate knowledge of and experience using specialized methods, techniques, materials and procedures used in experimental and research investigation and study. Work activities involve thinking within diversified procedures which may require a search for new applications or solutions. The incumbent is expected to work independently and utilize keen attention to detail. Work activities include operation of various scientific laboratory equipment, e.g. microscope, spectrometer, analytical balance, counter, collector, centrifuge, microtomes, enlarger, photocopy equipment and cameras, tissue processor and computer. Work activities are performed given the following working condition factors, i.e. extremely light physical effort, unfavorable environmental factors (varied temperatures, fumes, etc.) moderate controllable hazards (chemicals) and normal sensory attention. This classification is generally assigned to a clinical research and teaching laboratory in an academic department within a School, College at the University. This classification reports to and receives work direction from a research professional or faculty member.

**MINIMUM QUALIFICATIONS**
- High school graduate or equivalent combination of education and/or experience; supplemented by college level coursework in chemistry, biology or basic sciences.

- Extensive knowledge of or experience in laboratory setting.

- Extensive knowledge of methods, materials, techniques and procedures used in experimental research and study.

- Strong analytic skills; keen attention to detail.

- Extensive knowledge of basic principles and procedures of laboratory science.

- Ability to use technical equipment and scientific apparatus, e.g. electron microscope, photographic equipment.

- Considerable knowledge of and experience with chemicals, solutions and buffer preparation.

- Specialized training and/or certification preferred, e.g. American Society of Clinical Pathologists (ASCP), medical assistant, histology training, etc.

- Ability to communicate effectively with others.

- Typically, incumbents have held positions in a teaching and/or research laboratory facility.