



**Classification:** Criminalist III - Trace Evidence  
**Title Code:** V00515  
**Pay Range:** 27

**POSITION SUMMARY:**

This is a very responsible professional and technical position. Work includes performing complex and technical work in the scientific analysis of trace evidence. The employee also serves as a lead worker by training other criminalists and laboratory technicians. Work includes preparing reports, developing procedures for the laboratory, testifying in court, instructing others about the collection and analysis of evidence and maintaining and repairing the laboratory equipment. Work is performed with considerable independence within the framework of established procedures and policies.

**DESCRIPTION OF DUTIES PERFORMED:**

(Any one position may not include all of the duties listed nor do the listed examples include all tasks which may be found in positions of this class.)

Participates in the proficiency testing program for the trace evidence section.

Reviews and updates standard operating procedures, training, quality control, and safety manuals, etc., within the discipline.

Routinely testifies as an expert witness in a court of law while maintaining composure and objectivity under intense cross-examination.

Regularly works with a variety of potentially hazardous materials (e.g. HIV or hepatitis contaminated biological evidence).

Maintains report files; issues periodic and special reports as assigned.

Operates standard office equipment (i.e. personal computer, telephone, fax machine, copier, calculator, etc.).

Performs job-related travel as needed.

Performs other related duties as assigned.

Performs basic photography as needed.

Regularly processes, compares and examines trace evidence (e.g. hair and fiber, gunshot residue, fire debris, explosives, paint, glass, soil, lamp filament, fracture match and foreign substances).

Participates in crime scene investigations as needed and trains other criminalists in the procedures utilized.

Makes decisions as to the appropriate test methodology based on the quantity and quality of the submitted sample.

Assesses submitted evidence to determine which items are most likely to associate or disassociate the victim or suspect with a crime scene.

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Analyzes samples using chemical testing, polarized light microscopy, and chemical instrumentation including gas chromatography/mass spectrometry, infrared & Raman spectroscopy, scanning electron microscopy/energy dispersive x-ray spectroscopy and x-ray fluorescence.

Interprets test results obtained from the proper microscopic, chemical and instrumental methods.

Performs instrument maintenance and repairs.

Stays updated on technical trends through attendance of workshops/seminars and reading forensic science literature.

Conducts training of law enforcement personnel about collection and analysis of trace evidence.

Generates and receives requests to and from other law enforcement agencies, prosecutors, attorneys, etc., reference criminal evidence and crime laboratory procedures.

Educates trial attorneys, judges and juries about complex scientific analysis and serves as a technical advisor during trial proceedings.

Serves as a lead worker by training the criminalists and laboratory technicians in processing trace evidence.

Provides recommendations and assists in the development and application of methods and/or techniques to upgrading laboratory capability.

Interacts with the media regarding forensic science.

**REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES:**

Ability to read English effectively.

Ability to communicate in English clearly and concisely, both orally and in writing.

Knowledge and practice of safety rules and procedures associated with laboratory equipment and chemicals.

Ability to perform work in accordance with prescribed procedures, make accurate observations of test results, and prepare accurate records and reports.

Ability to compile and prepare information for presentations (e.g. mock trials, courtroom testimony, depositions, pretrial conferences, meetings, etc.).

Ability to maintain composure while under cross-examination regarding personal and scientific qualifications and testify to laboratory findings in court.

Ability to work with restricted, highly sensitive information in a confidential and professional manner.

Ability to establish and maintain effective working relations with others.

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Knowledge of and ability to teach the proper use of laboratory equipment, computer and photography equipment, and chemicals.

Ability to work with material that may be biohazardous or of a sexual nature relating to criminal activity (e.g. written material, photographs, and/or verbal language, etc.).

Ability to work hours as assigned.

Possess or ability to obtain a valid Missouri Driver license.

Ability to perform job-related travel (e.g., appearing in court, assisting in crime scene investigations, attending training meetings and seminars, etc.).

Knowledge of the collection, examination, comparison, and preparation of evidence.

Ability to perform microscopic work for extended periods.

Ability to distinguish colors necessary to perform laboratory tests.

Ability to recognize and identify minute details.

Ability to serve as a lead worker by training criminalists and laboratory technicians in processing trace evidence.

Ability to handle multiple assignments simultaneously.

**MINIMUM EXPERIENCE AND EDUCATION REQUIRED:**

(The following represents the minimum qualifications used to accept applicants, provided that equivalent substitution may be permitted in case of deficiencies in either experience or education.)

Possess a baccalaureate degree from an accredited college or university in chemistry or one of the natural sciences. College coursework must include two semesters of general chemistry with laboratory, two semesters of organic chemistry with laboratory, and one semester of quantitative analysis, analytical chemistry, instrumental analysis or equivalent. Applicants should have at least 25 earned credit hours in chemistry. Survey or introductory coursework intended for non-chemistry majors will not satisfy the above requirements. Both overall academic record and applicable job experience will be factors for consideration, however prior job experience will not replace these minimum academic requirements.

AND

Possess at least two years of experience as a Criminalist II - Trace Evidence or comparable experience.

**NECESSARY SPECIAL REQUIREMENTS:**

Must provide a DNA sample to be used only for forensic identification as required at the time of appointment.

Must be able to pass a polygraph examination after conditional offer of employment.

Must successfully complete a twelve-month probationary period upon employment.

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**FLSA STATUS:** Non-Exempt

**WORK SCHEDULE:** An employee in this position works an eight-hour shift as directed; however, working hours are subject to change at the discretion of the commanding authority.