

**DOUGLAS COUNTY  
SHERIFF'S OFFICE**

**JOB TITLE:** CRIME TECHNICIAN / FORENSIC CHEMIST

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**Exempt:** No

**Pay Grade:** E405

**Approved By:** Sheriff Darren Weekly

**Job Type:** 4056E

**Department:** Office of the Sheriff

**Date:** 01-10-23

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**General Duties:** Performs a variety of crime laboratory forensic analysis duties, crime scene processing, photography and photographic processing to be utilized as evidence in criminal proceedings by the Office and other related agencies. Performs professional forensic work conducting qualitative chemical analysis of evidence. Must prepare technical reports and have ability to testify in criminal proceedings.

**General Duties:** This position reports to the Douglas County Sheriff's Office and works primarily at The Unified Metropolitan Forensic Crime Lab.

The Unified Metropolitan Forensic Crime Lab (UMFCL) provides forensic laboratory and field services to law enforcement agencies within Aurora, Arapahoe and Douglas Counties in Colorado. The UMFCL is an entity designed to support all investigative functions of the agencies it serves. Responsible for all technical issues regarding the Chemistry section that provides the comprehensive forensic Chemistry service to the law enforcement agencies within these Counties and others, as necessary. Performs mandatory technical review of cases and provides scientific consultation as necessary. Performs Chemistry analysis on case work to include interpretation of test results, forming opinions and conclusions, preparing reports and testifying as an expert witness. This position will also be on-call for crime scene processing and photography.

**Supervision Exercised:** No supervision exercised. May give guidance to other crime scene technicians, investigators, and other personnel as well as training new chemists.

**Supervision Received:** Works under general supervision of the Chemistry Section Supervisor. Work is assigned on a case-by-case basis and reviewed for accuracy and completeness.

**Examples of Duties and Responsibilities:**

- Conduct independent chemical analyses of evidence to identify and confirm compositions and interpret results.
- Analyze drug evidence for the presence of controlled substances as defined by the Colorado State Statutes and Federal Department of Justice.
- May analyze blood for the presence of ethanol in DUI cases and other criminal cases as requested.
- May analyze Fire Debris cases for the presence of accelerants to assist any law enforcement or fire agencies services by the UMFCL.
- Determine the best method or methods to perform analysis.

- Interpret test results obtained from the proper microscopic, chemical and instrumental methods and prepares detailed reports of analysis.
- Operate, calibrate, troubleshoot, and perform preventative maintenance and repairs on state-of-the-art laboratory and analytical instruments and equipment, to include Gas Chromatograph / Mass Spectrometer (GC/MS), Fourier Transform Infrared Spectrometer (FTIR), microscopes, balances and others.
- Prepare a variety of reagents, solutions, standards and controls using established forensic laboratory practices.
- Review and assist in revising standard operating procedures, training, quality control, and safety manuals, etc., within the chosen/related discipline.
- Assist with and/or coordinate laboratory maintenance, audits and certifications.
- Regularly testifies as an expert witness in a court of law while maintaining composure under intense cross-examination.
- Perform independent research to develop and implement new techniques and recommends acquisition of instrumentation.
- Complete annual proficiency testing in chosen discipline.

**Other Duties as Assigned to Include:**

- Collect, receive, preserve and handle physical evidence, implement evidence control, document and maintain chain-of-custody, and preserve the integrity of evidence examined.
- Processing of crime scenes to identify, document, collect and preserve items of evidence.
- Documentation of crime scenes, to include photography and crime scene sketches, from rough draft to courtroom presentation.
- Preparation of written and oral reports.
- Assist at post-mortem examinations in the collection of evidence and fingerprints.
- Perform classification, comparison and identification of fingerprints from latent and 10 print fingerprints.
- Processing of evidence for latent prints, utilizing current techniques, to include chemicals, fuming and powders.
- Collection and preservation of shoe/tire impressions, tool marks, etc., utilizing casting techniques.
- Must successfully complete a competency test in controlled substance analysis prior to performing casework. Must maintain proficiency through successful completion of appropriate proficiency testing.
- Maintenance and stocking of crime lab supplies and crime lab vehicles.
- Teaching/training in specific specialty areas.
- Crime scene photography and photo development
- Sketch and documentation of crime scene
- Evidence collection and preservation of evidence
- Court room testimony

**Note:** The successful applicant must be able to perform ALL the above job functions, unassisted, and at a pace and level of performance consistent with actual job requirements

**Minimum Requirements:**

- Must be eligible to work in the United States.
- Graduation from an accredited college or university with a bachelor's degree in chemistry, natural science or a forensic science related field with a minimum of 24 college level semester hours of chemistry/physical chemistry.
- Minimum of three years professional criminalist and forensic analysis experience, conducting independent case work in a forensic laboratory required, excluding training.
- The applicant shall meet the education requirements of the Quality Assurance Standards for Forensic
- Working knowledge of crime scene processing and associated responsibilities is required.
- Knowledge of the operation, maintenance and repair of complex laboratory instruments.
- Thorough knowledge of scientific principles, standard laboratory procedures, analytical methods, and standard reagents. Knowledge of criminal laboratory procedures.
- Possess a valid Colorado driver's license at time of employment, or ability to obtain a Colorado driver's license.
- Ability to pass various qualifying examinations and background investigation.
- Have no convictions for felonies or crimes of moral turpitude.

**Essential Job Functions:**

Computer Skills: Ability to utilize and understand a variety of computer systems and software applications.

Mathematical Ability: Ability to perform and interpret statistical calculations and complex mathematical principles and procedures.

Office Policies and Procedures: Demonstrates considerable knowledge of the ethical guidelines applicable to the position as outlined by professional organizations and/or federal, state, and local laws, rules and regulations.

Legal Knowledge: Demonstrates a working knowledge of criminal and procedural law with an emphasis on the rules of evidence. Ability to testify in court. Ability to read and interpret court documents.

Investigative Knowledge: Ability to recognize, identify, document, and collect physical evidence pertinent to an identified scene and/or criminal investigation.

Mental Abilities: Ability to reason and apply logic in a multi-tasking environment. Comprehends and processes information quickly and accurately. Retains relevant information. Ability to exercise independent judgment in emergency and routine situations and to adopt quick, effective, and reasonable course of action.

Physical Skills: Must possess sufficient strength to lift, move, and push large items up to 50 pounds. Must be able to walk, stoop, kneel, reach and move about any given area for lengthy

periods of time. Must possess visual and fine/gross motor skills for the use of laboratory equipment, processing requirements, and collection techniques.

Safety: Applies appropriate safety precautions in hazardous and potentially dangerous situations. Experience some exposure to inclement weather at scenes. Potential exposure to hazardous materials, chemicals, narcotics, and blood borne pathogens; safeguards provided.

Shift Preparation: Possess and maintain ability to work and function effectively in a twenty-four hour on-call environment, to include rotating shifts.

Social Skills: Establish and maintain effective relationships with peers, supervisors and the public. Ability to interact with diverse groups and cultures in a complex society.

Vehicle Operation: Performs vehicle inspections. Operates vehicles during routing operations under varying road, weather and lighting conditions. Performs minor maintenance when required.

Verbal Skills: Speaks English clearly. Ability to communicate professionally with law enforcement officers, attorneys and peers.

Written Communication and Data Entry: Prepares reports, memos, forms, data entry, etc. This includes the documentation of own observations and actions. Writes legibly using acceptable English, grammar, punctuation and spelling. Assures accuracy of information.

Testimony: Must be able to provide credible testimony in a court of law or any other legal proceeding or investigation.

**Note:** The successful applicant must be able to perform ALL the above job functions, unassisted, and at a pace and level of performance consistent with actual job requirements.

**Consequence of Error:** Work involves a multitude of responsibilities, which include, but are not limited to: processing crime scenes and evidence, storage and custody of evidence, court presentations and testimony, computer entry and data storage. The consequence of error may result in the dismissal of criminal cases, loss of personal and crime lab credibility, expose department to civil liability and sanctions placed upon the Sheriff's Office.

**Other:** In the event of an emergency/disaster in or near the County, all County employees are expected to make every effort to be available to assist the County Manager, Elected/Appointed Officials and Department Directors to ensure the continued operation of any and all necessary County functions. This may mean being available to perform additional duties and hours beyond what is normally required. In the event that an exempt employee does work more than 40 hours a week in support of County operations during an emergency, such employee may receive overtime or other appropriate wage compensation in accordance with existing County policies or at the discretion of the County.