

### Class Concept

The position functions as Toxicology Operations Director supervising a staff of toxicologists, analytical chemists, and chemical technicians in performing an extensive range of chemical and physical analyses to discover, isolate, and identify the presence or extent of toxicity of drugs, environmental toxins, or synthetic toxic substances which may directly or indirectly cause death. This is advanced professional and technical work involving the development and maintenance of a toxicological program designed to support the Chief Medical Examiner's Office through the discovery of primary and secondary causes of unattended, accidental, or homicidal death. This is specialized professional medical work providing administrative and toxicological assistance to the Chief Toxicologist. The work results in confirming causes of death; detecting trends or recurring patterns of death among population groups; or in alerting public health officials of potential outbreaks of death from environmental toxins, unusual drug interactions, or by other toxic agents which may lead to death or illness.

Work assignments typically include the development and implementation of Branch and Unit policies, administrative procedures, and guidelines that must be integrated into the broad objectives of the Chief Medical Examiner's Office. The position determines appropriate and acceptable methodologies and techniques which support medicolegal investigations of death and oversees technical as well as administrative aspects of toxicological examinations. Administrative elements of the work are considered relatively stable with some recurring responsibilities; while the technical requirements in the analysis of postmortem biological specimens are highly dynamic based on frequent changes in available drugs, technology, or shifts in methodology. Cases presented for chemical analyses often require significant research where findings and conclusions are not readily discerned or observed. Work requires extensive interpretive skill to correlate analytical findings with autopsy results in determining cause of death.

Position may devise new procedures and techniques to identify unknown toxic agents, drugs, or poisons which may have contributed to the cause and manner of death. In formulating results of chemical analyses and relating to cause and manner of death, position applies in-depth understanding of biological sciences to include biochemistry, toxicology, anatomy, and physiology as well as fundamental concepts of pharmacy, medicine, and law. The role requires the ability to integrate applications of theoretical chemistry into work decisions and relate toxicological findings to broad field of public health. The position must understand drug interactions, disease etiology, characteristics and nature of extensive variety of synthetic and naturally occurring toxic substances, methods of medicolegal investigation, and concepts of forensic science.

The position trains and advises agents and other law enforcement officers, as well as serving as backup to the Chief Toxicologist when required. Work includes testifying in court or at hearings as a technical expert, conducting consultations and participating in pretrial conferences with prosecutors and defense attorneys, and providing guidance to law enforcement officers in the collection and preservation of document evidence.

### Recruitment Standards

#### Knowledge, Skills, and Abilities

- Thorough knowledge of the principles, practice and current developments in the field of forensic toxicology
- Thorough knowledge of theoretical principles of analytical chemistry, physiology and pharmacology, biological science, drug interaction and toxicogenomics; laboratory protocol, procedure, and techniques associated with medicolegal investigative work; principles of operation of analytical instrumentation
- Ability to organize and coordinate the operations of an analytical laboratory administratively and technically
- Ability to interpret and relate analytical results on causes and manner of death according to professional standards and ethical practices

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

- Ability to initiate and maintain professional working relationships with forensic staff, law enforcement authorities, physicians, attorneys, and toxicologists in other state medical examiner systems
- Ability to express technical information clearly both orally and in writing when reporting results, testifying, or explaining procedures to others

Minimum Education and Experience

Doctorate degree in toxicology, biochemistry, or pharmacology with four years of experience in forensic toxicology; or

Master's degree in chemistry with at least six years of experience in forensic toxicology, a medical examiner system, or in a clinical chemistry laboratory; or an equivalent combination of education and experience.