

## FORENSIC SCIENTIST I

### CLASS CONCEPT

This is entry level professional forensic analysis work that requires the analysis of forensic evidence in a crime laboratory setting to determine if the evidence could support a criminal prosecution. Employees examine and analyze evidence from simple to moderately complex casework, make judgments and testify in court as necessary to explain and defend their findings. Employees operate with some technical independence in the forensic examination of various types of evidence. Employees may assist journey or senior analysts in the more varied and moderately complex casework while continuing to learn the techniques, methods and practices involved in the examination of more complex cases. Employees conduct consultations and participate in pretrial conferences with prosecutors and defense attorneys, train and advise agents and law enforcement officers, and handle all evidence under stringent chain of custody rules. Employees may be required to perform other duties and responsibilities as assigned.

### I. DIFFICULTY OF WORK

Variety and Scope – Employees conduct a variety of analyses and examinations and assist senior analysts in the complete range of forensic laboratory work. Work includes obtaining known samples from both suspects and victims, providing instructions to law enforcement officers on the proper procedures for handling and obtaining evidence, conducting crime scene searches to detect and preserve evidence, conducting limited research on new methods and techniques, and testifying in court as an expert witness.

Intricacy – Employees may use microscopes, scientific instrumentation, chemical tests, or computers to look for the presence, composition, possible origin of evidence or to determine if the data is too limited to make a decision. The work requires both good visual attention and mental concentration. Focus, attention and concentration are important in making sure that important information is not overlooked. Each examination may take from several minutes to days to complete, depending upon the quality and quantity of the evidence submitted.

Subject Matter Complexity – Employees apply a complete knowledge of specific segments of forensic science which includes a working knowledge of the principles; theory and practices of physics, chemistry, biology, computer science or forensic science.

Guidelines – Employees use a variety of standardized or generally established guidelines such as laboratory procedure manuals, textbooks, instrument handbooks, agency policy, laws, regulations and other reference files.

### II. RESPONSIBILITY

Nature of Instructions – Employees usually operate with continuing assignments under specific objectives and priorities, and plan their daily and weekly work within those parameters. Supervision or other technical expertise is normally readily available to assist with unusual situations or the most complex problems.

Nature of Review – All case reports are reviewed in detail. Most technical decisions are reviewed except for some made while performing off-site functions such as crime scene searches and court testimony. Successful completion of annual proficiency testing is required.

Scope of Decisions – Work performed could affect laboratory personnel, law enforcement officers, district and defense attorneys, judges, juries, and suspects.

Consequence of Decisions – An incorrect identification, missed identification or a judgment with insufficient documentation to support it could convict an innocent person or set a guilty suspect free.

### III. INTERPERSONAL RELATIONSHIPS

Scope of Contacts – The majority of the contacts are with other laboratory personnel, investigating officers and district attorneys. Occasional contact may occur with the general public during crime scene searches and with juries during court testimonies.

Nature and Purpose – Most contacts are for the purpose of obtaining, presenting, reporting or explaining technical information. A more limited portion of contacts are concerned with persuading or justifying decisions in pretrial conferences or in court testimony.

#### IV. OTHER WORK DEMANDS

Work Conditions: Working conditions are usually in a laboratory or office settings but can include courtrooms and crime scenes.

Hazards – Employees are subject to irritants and hazardous chemicals, radiation, eye strain, and exposure to biological hazards when examining blood, bloody evidence or other bodily fluids.

#### RECRUITMENT STANDARDS

##### Knowledge, Skills, and Abilities

Employees must have a working knowledge of the principles, concepts, theories, reference sources and laboratory practices involved with the forensic examination of evidence.

Employees must have a working knowledge of criminal law and of the rules and regulations regarding evidence gathering and handling.

Employees must have a working knowledge of scientific methodology and of laboratory safety practices.

Ability to perform and record complex standardized and non-standardized laboratory tests and procedures.

Ability to analyze results, interpret methodology and to understand and solve theoretical problems.

Ability to express technical information clearly both orally and in writing when reporting results, testifying or explaining procedures to others.

Ability to understand and follow complex oral and written instructions.

Ability to perceive colors normally and make olfactory distinctions.

Ability to establish and maintain effective working relationships.

#### MINIMUM TRAINING AND EXPERIENCE REQUIREMENTS

##### **Minimum Education and Experience – Drug Chemistry**

Bachelor's degree with a major in chemistry or closely related curriculum from an appropriately accredited institution and two years of experience performing bench level analysis in drug chemistry; or an equivalent combination of education and experience.

##### **Minimum Education and Experience – Latent Evidence**

Bachelor's degree with a major in forensic science, biology, chemistry, biochemistry, physical science or closely related curriculum from an appropriately accredited institution and two years of experience performing bench level analysis in latent evidence; or an equivalent combination of education and experience.

##### **Minimum Education and Experience – Digital Evidence**

Bachelor's degree with a major in computer science, digital forensics, networking, information technology, criminal justice or closely related curriculum from an appropriately accredited institution including coursework in science and two years of experience performing bench level analysis in digital evidence; or an equivalent combination of education and experience.

##### **Minimum Education and Experience – Trace Evidence**

Bachelor's degree with a major in chemistry, textile chemistry, physical science or closely related curriculum from an appropriately accredited institution and two years of experience performing bench level analysis in trace evidence; or an equivalent combination of education and experience.

##### **Minimum Education and Experience – Firearms & Tool Marks**

Bachelor's degree with a major in forensic science, chemistry, biology, mechanical engineering, physical science or closely related curriculum from an appropriately accredited institution and two years of experience performing bench level analysis in firearms and tool marks; or an equivalent combination of education and experience.

**Minimum Education and Experience – Forensic Biology**

Bachelor's degree with a major in biology, microbiology, molecular biology, biochemistry, genetics, animal science, zoology, medical technology or closely related curriculum from an appropriately accredited institution including coursework in biochemistry, genetic, molecular biology, statistics and population genetics and two years of experience performing bench level analysis in forensic biology; or an equivalent combination of education and experience.

**Necessary Special Requirement:** Must obtain individual certification consistent with international and International Standards Organization standards within eighteen months of the date the analyst becomes eligible to seek certification according to the standards of the certifying entity.

MINIMUM TRAINING AND EXPERIENCE REQUIREMENTS FOR A TRAINEE APPOINTMENT

**Minimum Education and Experience – Drug Chemistry**

Bachelor's degree with a major in chemistry or closely related curriculum from an appropriately accredited institution; or an equivalent combination of education and experience.

**Minimum Education and Experience – Latent Evidence**

Bachelor's degree with a major in forensic science, biology, chemistry, biochemistry, physical science or closely related curriculum from an appropriately accredited institution; or an equivalent combination of education and experience.

**Minimum Education and Experience – Digital Evidence**

Bachelor's degree with a major in computer science, digital forensics, networking, information technology, criminal justice or closely related curriculum from an appropriately accredited institution including coursework in science; or an equivalent combination of education and experience.

**Minimum Education and Experience – Trace Evidence**

Bachelor's degree with a major in chemistry, textile chemistry, physical science or closely related curriculum from an appropriately accredited institution; or an equivalent combination of education and experience.

**Minimum Education and Experience – Firearms & Tool Marks**

Bachelor's degree with a major in forensic science, chemistry, biology, mechanical engineering, physical science or closely related curriculum from an appropriately accredited institution; or an equivalent combination of education and experience.

**Minimum Education and Experience – Forensic Biology**

Bachelor's degree with a major in biology, microbiology, molecular biology, biochemistry, genetics, animal science, zoology, medical technology or closely related curriculum from an appropriately accredited institution including coursework in biochemistry, genetic, molecular biology, statistics and population genetics; or an equivalent combination of education and experience.

**Necessary Special Requirement:** Must obtain individual certification consistent with international and ISO standards within eighteen months of the date the analyst becomes eligible to seek certification according to the standards of the certifying entity.

Special Note

This is a generalized representation of positions in this class and is not intended to identify essential functions per ADA. Examples of work are primarily essential functions of the majority of positions in this class, but may not be applicable to all positions.