

INVESTIGATIVE TECHNICIAN II

DEFINITION

Under direction, to plan, organize and provide technical direction for the application of a wide variety of electronic, microscopic and optical equipment used for suspect surveillance and developing audio/video evidence in criminal investigations; to design and adapt such equipment for investigative requirements; to operate sophisticated technical equipment performing a wide variety of specialized tasks in surveillance and forensic analysis; to provide expert testimony in court; and to do other work as required.

CLASS CHARACTERISTICS

This is the lead class in a two-class series. The incumbent has program responsibility for technical equipment services used in agency criminal investigations. Duties of this position typically involve the exercise of detailed technical knowledge of the operation, capabilities and application of a wide variety of highly specialized audio, video and computerized equipment such as transmitters, receivers, tape recorders, tape duplicating and filtration equipment, photographic cameras, audio spectrum analyzers and video micrometers. The incumbent serves as a resource of technical knowledge and expertise to the equipment. Work is performed with considerable independence and responsibility for product quality is reviewed in terms of effectiveness of contribution to criminal investigations.

EXAMPLES OF DUTIES

1. Receives requests for equipment and/or services for specific field assignments from investigative personnel and various local law enforcement agencies; reviews and analyzes case information and anticipated field conditions; determines equipment requirements; assigns to Investigative Technician I or personally selects, designs, assembles and adapts equipment for the specific assignment; instructs investigators on equipment operation and monitoring; installs and conceals equipment on person of investigator, in vehicles or at stationary locations.
2. Using highly specialized electronic and microscopic equipment, performs forensic analysis and filtration of audio and/or video tape recorded evidence; performs forensic tape analysis to determine originality and authenticity of content; using indicated original tape recorder, creates test recording; compares magnetic striae and tape function signatures (start, stop, pause, record) of purported original recording to test recording; uses critical listening techniques to verify continuity of conversation; performs waveform analysis and magnetic pattern examination of purported original recording and test recording to identify anomalies; reduces background and extraneous noises using digital filters to enhance sound quality of audio tape recordings.
3. Develops long range plans and objectives for the use of electronics equipment in criminal investigations; evaluates new technical developments in surveillance, filtration and forensic equipment; consults with and assists local, state and federal law enforcement agencies to provide and exchange technical information and assistance; selects and designs the interface of audio/video systems including filtration, editing and duplicating equipment; oversees field testing and trains investigators in the operation of new types of equipment; prepares budget recommendations and requisitions for new supplies and equipment.
4. Appears in court to provide technical advice to attorneys during cross examination with respect to audio, video and optical findings; evaluates expert testimony of defense and proposes

cross examination strategy; provides testimony as an expert witness; demonstrates laboratory findings using playback and projection equipment and visual aids.

5. Produces training material for legal investigative staff; with assistance of subject matter experts, writes, directs, edits and distributes audio and video training recordings to the county law enforcement agencies and local police agencies; sets up location or studio shots; photographs or video tapes training exercises; develops resource library of standardized training films.

6. In the field under discreet and frequently adverse lighting and sound conditions, takes photographs and sound and video tape recordings of criminal suspects and activities for investigative evidence; monitors equipment to insure proper functioning; instructs and directs investigative personnel participating or assisting in equipment operation and monitoring.

MINIMUM QUALIFICATIONS

Thorough Knowledge of

The operation and capabilities of a wide variety of specialized electronic, microscopic and optical equipment used for suspect surveillance and developing audio/video evidence in criminal investigations.

Criminal investigation procedures using the above equipment, including suspect surveillance.

General Knowledge of

Principles and techniques of effective program planning, supervision and equipment budgeting and purchasing procedures.

Principles, methods, techniques, tools, instruments and equipment used in the installation, maintenance, adjustment and minor repair of the above described equipment.

Sources of repair, supply and technical information regarding the above equipment.

Ability to

Initiate, plan and implement technical support to investigative staff for the purpose of gathering and developing evidence, subject to frequently changing and conflicting demands and priorities, under minimal direction.

Operate a wide variety of specialized electronic, microscopic, optical and computerized equipment used for suspect surveillance and developing evidence in criminal investigations.

Write, direct, edit and distribute training video/audio tapes.

Appear in court as an expert witness with respect to audio, video and optical findings; evaluate expert testimony of defense and propose cross examination strategy.

Speak clearly and concisely and explain detailed technical information to nontechnical audiences.

Use various tools, instruments and equipment to install, maintain, adjust and make minor repairs to the above equipment.

Read and understand complex technical publications including text, illustrations, schematics and diagrams.

Define and analyze problems and develop logical conclusions.

Write detailed and concise reports and records, using technical terminology.

Use a County-approved means of transportation to travel to various work locations.

Experience

Five years of experience which demonstrates possession of the above knowledge and abilities, including at least two years in law enforcement, civilian technical support to law enforcement personnel, or private investigation, any of which has involved: the filtration and forensic analysis of audio/video tape recordings; selecting, setting up and operating cameras, radio transmitters and receivers, tape recorders and other photographic and electronic equipment for discreet surveillance of subjects; and operating sound and videotape editing and duplicating equipment.

Education or training related to the above knowledge and abilities may be substituted for up to one year of the required experience (excluding the two required years mentioned above), at the rate of three college semester units for one month of experience or one hour of training for one hour of experience.

OR

Three years as an Investigative Technician I - for the County of Orange.

Special Requirement

Applicant must not have been convicted of any felony and must pass a background investigation to the satisfaction of Orange County law enforcement agency.