

# Advanced Origin & Cause/Courtroom Testimony

(Course ID ARSON-CS-0002)

## PROGRAM DESCRIPTION:

Advanced Origin and Cause/Courtroom Testimony (AOCCT) is designed to enhance the origin and cause investigative skills of the public service state, local and international fire investigator. The goal of this course is to provide state, local and international fire investigators with the requisite knowledge, skills and abilities to systematically determine the origin and cause of a fire and to be able to present these findings to a prosecutor and to a jury in all subsequent judicial proceedings. It involves the in-depth study of fire dynamics, fire chemistry, electrical fire causation, burn pattern analysis and fire scene documentation. Instruction will be presented through classroom lectures and practical exercises. The curriculum involves fire scene processing with an emphasis on the practical applications of scientific knowledge. Students are required to process fire scenes utilizing the Scientific Method and "team concept" as well as prepare technical reports documenting their findings for use in court proceedings as an expert witness. A written test is administered at the completion of the course, as well as a final practical exercise, and a mock trial which is designed to prepare the student to testify as an expert witness. In order to cover the amount of material required for this course, completion of work assignments and studying after classroom hours will be necessary. The course is delivered at the ATF Fire Programs & Training Branch located at the National Center for Explosives Training & Research (NCETR) on Redstone Arsenal in Huntsville, Alabama.

## CURRICULM INCLUDES:

- Fire & Damage Dynamics
- Report Writing
- Scene Documentation
- Electrical Aspects of Fire Scenes
- Appliance Fires
- Fatal Fire Investigations
- Fuel Air Explosions
- NFPA 921 & 1033
- Current Case Law Related to Fire Investigation
- Expert Testimony & Trial Preparation

## PREREQUISITES FOR ATTENDANCE:

This course is designed for experienced fire investigators and is highly advanced and technical in nature. Because of the advanced level of this program, student selection is considered vital to the overall effectiveness of the program. To meet minimum background prerequisites, applicants must possess a minimum of a high school diploma or equivalent (per NFPA 1033)\* and be full-time state, local or international public service employees whose responsibilities include fire scene origin and cause determination. Applicants must possess a minimum of **2 years of experience as a FULL-TIME public sector fire investigator** or **5 years as a PART-TIME public sector fire investigator** where other assigned duties include fire suppression, fire inspection, fire safety, fire prevention, or criminal investigation where fire investigation is a significant component of the applicant's assigned duties (Requires letter from employer on department letterhead). In addition to the registration application, all applicants must submit a Curriculum Vitae (CV), which documents their experience in arson investigation, origin and cause determination and courtroom testimony, if any. All training and education must be documented by transcript or completion certificate and submitted with the application packet. Special provisions apply to international applicants.

TRAINING PREREQUISITES ARE AS FOLLOWS:

Completion of National Fire Academy (NFA) R0206 - Fire Investigation: Essentials. In addition, the applicant must complete the current CFITrainer.net prerequisites for R0206<sup>(2)</sup> and the mandatory modules required for AOCCT<sup>(2)</sup>.

OR

Completion of an NFA-Approved State Equivalent Fire Investigation Course<sup>(1)</sup> (Must complete full series required dependent on state course series. For example, if a state offers three levels of training within the Fire Investigator series, all three must be completed for credit). In addition, the applicant must complete the CFITrainer.net prerequisites required for R0206 and the mandatory modules required for AOCCT<sup>(2)</sup>. An additional 24-hours of DOCUMENTED training related to Fire Investigation resulting in a completion certificate or official transcript is also required (may have been through in-person training, lecture or online (CFITrainer.net))<sup>(3)</sup>

OR

Completion of a Non-NFA-Approved State Equivalent Fire Investigation Course resulting in a certificate recognized by the state in which the applicant is employed. (Must complete full series required dependent on state course series. For example, if a state offers three levels of training within the Fire Investigator series, all three must be completed for credit). In addition, the applicant must complete the CFITrainer.net prerequisites required for R0206 and the mandatory modules required for AOCCT<sup>(2)</sup>. An additional 40-hours of DOCUMENTED training related to Fire Investigation resulting in a completion certificate or official transcript is also required (may have been through in-person training, lecture or online (CFITrainer.net)).<sup>(3)</sup>

- (1) The National Fire Academy website indicates that successful completion of one of the following state's fire investigation/arson courses satisfies the R0206 requirement: Arkansas, Arizona, California, Florida, Georgia, Illinois, Indiana, Iowa, Louisiana, Kansas, Maryland, Missouri, Michigan, Minnesota, Mississippi, New Jersey, New York, Ohio, South Carolina, Tennessee, Texas and Virginia. (This list is based upon the National Fire Academy list of approved State Equivalent Courses and may not reflect the most current list. Applications will be judged based upon the most current list of NFA R0206 equivalent courses.)
- (2) Several CFITrainer.net modules are required to be completed for application to this class. Supporting documentation, in the form of CFITrainer.net transcript, must be submitted with the application. Access to CFITrainer.net is via website at [www.cfitrainer.net](http://www.cfitrainer.net). There are no costs or membership requirements to access these modules. The required CFITrainer.net modules are subject to change based upon the frequent addition of new or updated modules. The list of required CFITrainer.net modules for this class are as follows:

**NFA R0206 Prerequisites:**

- *Fire Investigator Scene Safety*
- *The Scientific Method for Fire/Explosion Investigations*
- *Introduction to Evidence*
- *Documenting the Event*
- *Physical Evidence at the Fire Scene*
- *Investigating Motor Vehicle Fires*
- *Introduction to Fire Dynamics and Modeling*
- *Investigating Fatal Fires*
- *Fundamentals of Residential Building Construction*
- *Search and Seizure*

**AOCCT Prerequisites:**

- *Arc Mapping Basics*

- *Basic Electricity*
- *Effective Investigation and Testimony*
- *Electrical Safety*
- *Explosion Dynamics*
- *Fire Chemistry*
- *Fire Protection Systems*
- *Investigating Natural Gas Systems*
- *Managing Complex Fire Scene Investigations*
- *NFPA 1033 and Your Career*
- *Post-flashover Fires*
- *Process of Elimination*
- *Residential Electrical Systems*
- *Residential Natural Gas Systems*
- *The Impact of Ventilation in Building Structures on Fire Development*
- *The Practical Application of the Relationship between NFPA 1033 and NFPA 921*
- *Thermometry, Heat, and Heat Transfer*
- *Writing the Initial Origin and Cause Report*

*(3) CFITrainer.net modules required for AOCCT and the prerequisites for NFA R0206 cannot be claimed as additional documented training hours for admission into this class.*

#### PROGRAM COST:

All travel (airfare, baggage fees, mileage, etc.), tuition, lodging and per diem costs for this program are covered by ATF. Airport transfers and local travel from the hotel to and from the training center will be arranged by ATF. Students will be reimbursed for covered costs by direct deposit, following submission of a travel voucher at the conclusion of the training program. Daily per diem rates are determined by GSA. Hotel lodging costs will be direct billed to ATF.

#### LENGTH OF TRAINING:

This an intense course of study consisting of a two-week period with ten (10) days of classroom/range instruction. Fire scene practical will be performed on Friday of the first week with the weekend utilized for report writing. Students should expect to work during the evenings and on weekends.

#### APPLICATION:

Download [ATF F 6310.1](#) — State and Local Training Registration Request. Complete all applicable fields of the form and attach CV, copy of NFA R0205/R0206 certificate, or state training certificates/transcripts and CFITrainer.net transcript. Please send the completed application and supporting documentation via email to [AOCCT@atf.gov](mailto:AOCCT@atf.gov). Applicants will be notified when a complete application packet including the correct supporting documentation is received. Complete application packets will then undergo an evaluation to ensure that applicants meet the specified minimum qualifications. Once approved, applicants will be placed on a waiting list for the next available course with selections made as openings become available. Those selected will be contacted with available course dates. Once accepted into a particular course, travel instructions will be sent to each student.

#### COURSE DATES:

Course dates will be determined based upon funding and as such may be flexible. No course dates will be posted on this website. Approved applicants will be placed on a waiting list for the next available course with selections made as openings become available. Those selected from the course waiting list will be contacted with available course

dates.

CONTACT: AOCCT Program Manager Devin Palmer at [devin.palmer@atf.gov](mailto:devin.palmer@atf.gov) or 256-261-7537 for additional information.

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