

**FIRE 1325 - Fire Investigation I**  
**3 Credit Hours**

**Course Description:**

This course is an examination of the scientific methods of fire/arson investigation, combustion, fire behavior, sources of ignition, written statements, criminal case report writing, and evidence evaluation used in fire/arson investigations.

**Course Outcomes:**

Upon successful completion of this course, students should be able to achieve the following course level learning objectives (CLLO):

- CLLO A: Describe the role of fire investigators in their determination of the origin, cause, and development of a fire or explosion
- CLLO B: Identify the common job performance requirements for fire investigators
- CLLO C: Demonstrate an understanding of the role of the scientific method as it applies to fire and explosion investigations
- CLLO D: Explain the concept of spoliation as it applies to fire investigation
- CLLO E: Discuss the elements of proof necessary in investigating and prosecuting arson case investigations
- CLLO F: Discuss the requirements for expert witness testimony, scientific method, and exhibits.

**Prerequisites and Corequisites:**

There are no prerequisites or corequisites for this course.

**Course Topics:**

- Course Topic #1: Introduction to Fire Investigation
- Course Topic #2: The Elementary Chemistry of Combustion
- Course Topic #3: Fundamentals of Fire Behavior and Building Construction
- Course Topic #4: Combustion Properties of Liquid and Gaseous Fuels
- Course Topic #5: Combustion Properties of Solid Fuels

- Course Topic #6: Sources of Ignition
- Course Topic #7: Structure Fires and Their Investigation
- Course Topic #8: Wildland Fires and Their Investigation
- Course Topic #9: Automobile, Motor Vehicle, and Marine Fires
- Course Topic #10: Electrical Causes of Fires
- Course Topic #11: Clothing and Fabric Fires
- Course Topic #12: Explosions and Explosive Combustion
- Course Topic #13: Chemical Fires and Hazardous Materials
- Course Topic #14: Laboratory Services
- Course Topic #15: Fire-Related Deaths and Injuries
- Course Topic #16: Arson as a Crime
- Course Topic #17: Other Investigative Topics

#### Specific Course Requirements:

Students will need the required text book for this course. The instruction will include but is not limited to assigned text reading, PowerPoint reading, student led discussion, and other class participation. Student evaluation will include two examinations (Mid-Term and Final Exam), 12 quizzes, 12 discussion questions, and class participation. Students are expected to read assignments and to come to class prepared to discuss and or take a quiz on the assigned material. Written assignments and quizzes cannot be made up. Exams can only be made up with approval of the instructor and under extraordinary circumstances.

#### Required Textbooks:

Please visit the [Virtual Bookstore](#) to obtain textbook information for this course. Move your cursor over the "Books" link in the navigation bar and select "Textbooks & Course Materials." Select your Program, Term, Department, and Course; then select "Submit."

#### Supplementary Materials:

None

#### Hardware and Software Requirements:

Minimum hardware requirements can be found [here](#).

Minimum software requirements can be found [here](#).

**Common applications you might need:**

To read a PDF file download the latest version of [Adobe Reader here](#)

Don't have Microsoft Word? Explore an alternative [OpenOffice here](#)

Accessing a PowerPoint file? Download the [PowerPoint Viewer here](#)

**Web Resources:**

Purdue [OWL Online Writing Lab](#) (for APA, MLA, or Chicago style)

The Writing Center [Online Writer's Handbook](#)

**Student Resources:**

- Technical support information can be found on the [TN eCampus Help Desk](#) page.
- Smarthinking virtual tutoring is available **FREE** of charge. to access Smarthinking, visit the course homepage and select Smarthinking under Course Resources. You also view [sample sessions](#) to see what Smarthinking offers and how it works.
- Information on other student issues or concerns can be located on the [TN eCampus Student Resources](#) page.

**Instructor Information:**

Please see "Instructor Information" in the Getting Started Module for instructor contact information, virtual office hours, and other communication information. You can expect to receive a response from the instructor within 24-48 hours unless notified of extenuating circumstances.

**Grading Procedures:**

Letter grades for this course will be assigned based on the following scale.

Point Range	Assigned Grade
2,340 - 2,600	A
2,080 - 2,339	B
1,820 - 2,079	C
1,560 - 1,819	D
Below 1,560	F

## Graded Items

Assigned Work	# and Point Value	Total Points	Weight
Discussions	12 @ 100 points	1,200	25%
Assignments	12 @ 100 points	1,200	25%
Exams	2 @ 100 points	200	50%
Total		2,600	100%

## Assignments and Projects:

There will be 12 quizzes. These quizzes cover assigned readings and lecture material. There will be 12 discussion questions. These discussion questions cover assigned readings and lecture material. There will be a mid-term and final exam; the exams must be taken at the date and time given.

## Class Participation:

Students must respond to the discussion question and respond to at least two other student's post to earn points for participating in the discussion board. Posts must be articulate not just simply "I agree". Students are to respond to all discussion topics in a thoughtful and complete manner. You must post your initial, original response consisting of at least one full paragraph (minimum 500 words) in a manner in which demonstrates that you understand the topic as it relates to the module content and text reading. Please also respond (minimum 250 words) to at least two of your classmates' posts.

Student evaluation will include examinations, quizzes, and class participation (discussion board participation).

## Late Policy:

No exceptions will be made for late work. The exams and quizzes must be taken at the date and time given. The dates and times for all assignments (quizzes, exams, and discussion questions) are listed in the calendar.

## Course Ground Rules:

*The following two statements (1., 2.) were derived from the TBR System-wide Student Rules document, released January 2012:*

### RULES OF THE TENNESSEE BOARD OF REGENTS STATE UNIVERSITY AND COMMUNITY COLLEGE SYSTEM OF TENNESSEE SYSTEMWIDE STUDENT RULES CHAPTER 0240-02-03 STUDENT CONDUCT AND DISCIPLINARY SANCTIONS

[Read the document in its entirety here.](#)

#### **1. Standards of Conduct:**

- Students are required to adhere to the same professional, legal and ethical standards of conduct online as on campus. In addition, students should conform to generally accepted standards of "netiquette" while sending e-mail, posting comments to the discussion board, and while participating in other means of communicating online. Specifically, students should refrain from inappropriate and/or offensive language, comments and actions.

#### **2. [Review the TN eCampus Academic Integrity/Academic Honesty Policy:](#)**

- In their academic activities, students are expected to maintain high standards of honesty and integrity. Academic dishonesty is prohibited.

Such conduct includes, but is not limited to:

- an attempt by one or more students to use unauthorized information in the taking of an exam
- to submit as one's own work, themes, reports, drawings, laboratory notes, computer programs, or other products prepared by another person,
- or to knowingly assist another student in obtaining or using unauthorized materials.

Plagiarism, cheating, and other forms of academic dishonesty are prohibited.

Students guilty of academic misconduct, either directly or indirectly through participation or assistance, are subject to disciplinary action through the regular procedures of the student's home institution. Refer to the student handbook provided by your home institution to review the student conduct policy.

In addition to other possible disciplinary sanctions that may be imposed, the instructor has the authority to assign an "F" or zero for an activity or to assign an "F" for the course.

## **Other Course Rules:**

Students are expected to:

- Participate in all aspects of the course
- Communicate with other students
- Learn how to navigate in Brightspace
- Keep abreast of course announcements
- Use the assigned course management (Brightspace) email address rather than a personal email address
- Address technical problems immediately:
  - [Contact Technical Support](#)
  - [View Term Calendar here](#)
- Observe course netiquette at all times.

## **Guidelines for Communications:**

### **Email:**

- Always include a subject line.
- Remember without facial expressions some comments may be taken the wrong way. Be careful in wording your emails. Use of emoticons might be helpful in some cases.
- Use standard fonts.
- Do not send large attachments without permission.
- Special formatting such as centering, audio messages, tables, html, etc. should be avoided unless necessary to complete an assignment or other communication.
- Respect the privacy of other class members

### **Discussions:**

- Review the discussion threads thoroughly before entering the discussion. Be a lurker then a discussant.
- Try to maintain threads by using the "Reply" button rather starting a new topic.
- Do not make insulting or inflammatory statements to other members of the discussion group. Be respectful of other's ideas.
- Be patient and read the comments of other group members thoroughly before entering your remarks.
- Be cooperative with group leaders in completing assigned tasks.
- Be positive and constructive in group discussions.
- Respond in a thoughtful and timely manner.

### Library:

The [Tennessee Virtual Library](#) is available to all students enrolled in TN eCampus programs and courses. Links to library materials (such as electronic journals, databases, interlibrary loans, digital reserves, dictionaries, encyclopedias, maps, and librarian support) and Internet resources needed by learners to complete online assignments and as background reading will be included within the course modules. To access the Virtual Library, go to the course homepage and select the **Virtual Library** link under Course Resources.

### Students with Disabilities:

Qualified students with disabilities will be provided reasonable and necessary academic accommodations if determined eligible by the appropriate disability services staff at their home institution. Prior to granting disability accommodations in this course, the instructor must receive written verification of a student's eligibility for specific accommodations from the disability services staff at the home institution. It is the student's responsibility to initiate contact with their home institution's disability services staff and to follow the established procedures for having the accommodation notice sent to the instructor.

### Syllabus Changes:

The instructor reserves the right to make changes as necessary to this syllabus. If changes are necessitated during the term of the course, the instructor will immediately notify students of such changes both by individual email communication and posting both notification and nature of change(s) on the course bulletin board.

### Disclaimer

The information contained in this syllabus is for general information purposes only. While we endeavor to keep this information up-to-date and accurate, there may be some discrepancies between this syllabus and the one found in your online course. The syllabus of record is the one found in your online course. Please make sure you read the syllabus in your course at the beginning of the semester. Questions regarding course content should be directed to your instructor.