



El Camino College  
COURSE OUTLINE OF RECORD – Official

<b>Course Acronym:</b>	FTEC
<b>Course Number:</b>	11
<b>Descriptive Title:</b>	Arson Detection and Control
<b>Division:</b>	Health Sciences and Athletics
<b>Department:</b>	Fire and Emergency Technology
<b>Course Disciplines:</b>	Fire Technology
<b>Catalog Description:</b>	This course is a study of prevention, detection, and control of arson fires. It includes arson motives, fire investigation, and lawful search, identification, collection, seizure and preservation of evidence.
<b>Prerequisite:</b>	
<b>Co-requisite:</b>	
<b>Recommended Preparation:</b>	Fire and Emergency Technology 1 and Eligibility for English 1A
<b>Enrollment Limitation:</b>	
<b>Hours Lecture (per week):</b>	3
<b>Hours Laboratory (per week):</b>	0
<b>Outside Study Hours:</b>	6
<b>Total Course Hours:</b>	54
<b>Course Units:</b>	3
<b>Grading Method:</b>	Letter Grade only
<b>Credit Status:</b>	Credit, degree applicable
<b>Transfer CSU:</b>	Yes
<b>Effective Date:</b>	Prior to July 1992
<b>Transfer UC:</b>	No
<b>Effective Date:</b>	
<b>General Education: ECC</b>	
<b>Term:</b>	
<b>Other:</b>	
<b>CSU GE:</b>	
<b>Term:</b>	
<b>Other:</b>	
<b>IGETC:</b>	
<b>Term:</b>	
<b>Other:</b>	
<b>Student Learning Outcomes:</b>	<b>SLO #1 Investigating a Fire</b>

	<p>The student will be able to identify legal search methods and procedures to follow when investigating a fire.</p> <p><b>SLO #2 Evidence Collection &amp; Preservation</b></p> <p>The student will be able to identify the collection and preservation of evidence.</p> <p><b>SLO #3 Motives of Arson</b></p> <p>The student will be able to identify the various motives of arson-related fires.</p>
<b>Course Objectives:</b>	<ol style="list-style-type: none"> <li>1. Compare and contrast the chemistry of fire and the physics of fire.</li> <li>2. Compare and contrast causes of fire.</li> <li>3. Analyze and determine various motives for arson.</li> <li>4. Evaluate the relationship between fire scene search and the law.</li> <li>5. Outline, compare and contrast basic principles of structure, vehicle and wildland fire investigation.</li> <li>6. Describe proper methods of identification, collection and preservation evidence.</li> <li>7. Analyze indicators of fire cause to be found at a fire scene and describe the meaning and significance of each one.</li> <li>8. Describe legal search methods and procedures to follow when investigating a fire.</li> <li>9. Describe a firefighter's responsibility with regards to observations and actions taken en route to a fire, on scene and post-incident.</li> </ol>
<b>Major Topics:</b>	<p><b>I. OVERVIEW OF ARSEN DETECTION AND CONTROL (4 hours, lecture)</b></p> <ol style="list-style-type: none"> <li>A. Student activities</li> <li>B. Relevance to emergency personnel</li> </ol> <p><b>II. FIRE CAUSES (10 hours, lecture)</b></p> <ol style="list-style-type: none"> <li>A. Heat of ignition</li> <li>B. Source of ignition</li> <li>C. Form of material ignited</li> </ol> <p><b>III. ARSON MOTIVES (10 hours, lecture)</b></p> <ol style="list-style-type: none"> <li>A. Arson the crime</li> <li>B. Revenge</li> <li>C. Profit</li> <li>D. Covering up a crime</li> </ol> <p><b>IV. FIRE SCENE SEARCH AND THE LAW (10 hours, lecture)</b></p> <ol style="list-style-type: none"> <li>A. Legislated laws</li> <li>B. Case laws</li> <li>C. Court decisions</li> </ol> <p><b>V. STRUCTURAL FIRE INVESTIGATION (10 hours, lecture)</b></p> <ol style="list-style-type: none"> <li>A. Securing the scene</li> <li>B. Exterior examination</li> <li>C. Interior examination</li> </ol> <p><b>VI. IDENTIFICATION, COLLECTION AND PRESERVATION OF EVIDENCE (10 hours, lecture)</b></p> <ol style="list-style-type: none"> <li>A. Authority to collect</li> <li>B. Protecting evidence</li> <li>C. Contamination</li> </ol>
<b>Total Lecture Hours:</b>	54
<b>Total Laboratory Hours:</b>	0
<b>Total Hours:</b>	54
<b>Primary Method of Evaluation:</b>	1) Substantial writing assignments

<b>Typical Assignment Using Primary Method of Evaluation:</b>	Write a three-page report which provides a lawful rationale for conducting a fire scene search during the period of time when the fire department controls the scene and addresses the legalities involved in conducting a search after surrendering control. Submit report to the instructor.
<b>Critical Thinking Assignment 1:</b>	Prepare a three-page report documenting and recording evidence at a mock fire location. Submit report to the instructor.
<b>Critical Thinking Assignment 2:</b>	Given a fire scene scenario, analyze and assess fire cause burn indicators and write a one-page opinion as to the cause of the fire. Be prepared to defend your position in a mock arson case. Submit opinion to the instructor.
<b>Other Evaluation Methods:</b>	Class Performance, Completion, Homework Problems, Matching Items, Multiple Choice, Other Exams, Quizzes, Term or Other Papers, Written Homework
<b>Instructional Methods:</b>	Lecture, Multimedia presentations
<b>If other:</b>	Class participation projects
<b>Work Outside of Class:</b>	Answer questions, Observation of or participation in an activity related to course content (such as theatre event, museum, concert, debate, meeting), Problem solving activity, Required reading, Skill practice, Study, Written work (such as essay/composition/report/analysis/research)
<b>If Other:</b>	
<b>Up-To-Date Representative Texts:</b>	David Icove, <u>KIRK'S FIRE INVESTIGATION</u> . 8 <sup>th</sup> edition, Pearson, 2017. (Discipline Standard)
<b>Alternative Texts:</b>	
<b>Required Supplementary Readings:</b>	
<b>Other Required Materials:</b>	
<b>Requisite:</b>	
<b>Category:</b>	
<b>Requisite course(s): List both prerequisites and corequisites in this box.</b>	
<b>Requisite and Matching skill(s):Bold the requisite skill. List the corresponding course objective under each skill(s).</b>	
<b>Requisite Skill:</b>	
<b>Requisite Skill and Matching Skill(s): Bold the requisite skill(s). If applicable</b>	
<b>Requisite course:</b>	Fire and Emergency Technology-1
<b>Requisite and Matching skill(s):Bold the requisite skill. List the corresponding course</b>	<b>Knowledge of fire behavior and safety practices.</b>  FTEC 1 - Compare and contrast the basic components of fire as a chemical reaction, the major phases of fire, and the main factors that influence fire spread and fire behavior.

<b>objective under each skill(s).</b>	FTEC 1 - Describe the basic elements of firefighter safety and survival.
<b>Requisite Skill:</b>	Eligibility for English 1A
<b>Requisite Skill and Matching skill(s): Bold the requisite skill. List the corresponding course objective under each skill(s). If applicable</b>	<b>This course involves reading college-level textbooks and writing written reports. A student's success in this class will be enhanced if they have these skills.</b> Summarize and analyze college-level texts. Write a well-reasoned essay that demonstrates application of the academic writing process.
<b>Enrollment Limitations and Category:</b>	
<b>Enrollment Limitations Impact:</b>	
<b>Course Created by:</b>	Kenneth Hall
<b>Date:</b>	02/01/1988
<b>Original Board Approval Date:</b>	
<b>Last Reviewed and/or Revised by:</b>	Ryan Carey
<b>Date:</b>	02/27/2024
<b>Last Board Approval Date:</b>	05/20/2024
<b>Effective Term:</b>	FALL 2025