



El Camino College
COURSE OUTLINE OF RECORD – Official

Subject:	FTEC
Course Number:	513A
Descriptive Title:	Fire Apparatus Driver/Operator-Pumping Apparatus (Driving)
Division:	Health Sciences and Athletics
Department:	Fire and Emergency Technology
Course Disciplines:	Fire Technology
Catalog Description:	This noncredit course provides information on fire apparatus preventive maintenance and driver/operating. Topics include routine tests, inspections, servicing functions, operate, back, maneuver and turn a fire apparatus in a variety of conditions; and operate all fixed systems and equipment on a fire apparatus. This course is based on the 2014 edition of National Fire Protection Association 1002 "Standards for Fire Apparatus Driver/Operator Professional Qualifications." This course fulfills the requirements for a Class C Firefighter Endorsement. Note: The content of Fire Tech 513A , a noncredit course, is identical to the content of Fire Tech 113A, a credit course. Fire Tech 513A shall be offered with Fire Tech 113A as a dual-roster course.
Prerequisite:	Hold a valid Class C driver's license (minimum). State Fire Marshal requirement.
Co-requisite:	
Recommended Preparation:	Fire and Emergency Technology 1
Enrollment Limitation:	
Hours Lecture (per week):	1
Hours Laboratory (per week):	1
Outside Study Hours:	2
Total Course Hours:	36
Course Units:	0
Grading Method:	Pass/No Pass only
Credit Status:	Noncredit
Transfer CSU:	No
Effective Date:	
Transfer UC:	No
Effective Date:	
General Education ECC:	
Term:	
Other:	
CSU GE:	
Term:	

Other:	
IGETC:	
Term:	
Other:	
CalGETC:	
Term:	
Other:	
Student Learning Outcomes:	Upon completion of the course, students will be able to: 1. Select the required actions to recover from a skid. 2. Choose the appropriate position to place the transfer valve, when operating in the "Capacity" mode. 3. Describe the steps involved in testing the effectiveness of the apparatus air brakes.
Course Objectives:	1. Explain laws relating to emergency and non-emergency driving. 2. Identify the theories and principles of defensive driving. 3. Demonstrate the ability to steer out of a skid. 4. Perform a dry vacuum test. 5. Compare the advantages and disadvantages of using a centrifugal pump. 6. Explain the steps involved in making a "pre-trip" vehicle inspection.
Major Topics:	I. Responsibilities, Standards and Laws (5 hours, lecture) A. Fire apparatus driver/operator responsibilities B. Legal aspects of emergency and nonemergency driving II. Inspection, Basic Maintenance, Documentation and Troubleshooting (8 hours, lecture) A. Inspection and maintenance of the apparatus body and compartments B. Inspection and maintenance of frames, axles and suspension systems C. Inspecting engine systems D. Troubleshooting engine systems E. Inspection and maintenance of brake systems F. Troubleshooting brake systems G. Pump service tests III. Driving Practices (5 hours, lecture) A. Principles of defensive driving B. Principles of off-road driving C. Principles of steering and load controls D. Driving during adverse weather conditions IV. Driving Exercises (18 hours, lab) A. Emergency driving scenarios B. Driving practice
Total Lecture Hours:	18
Total Laboratory Hours:	18
Total Hours:	36
A.1. Primary Methods of Evaluation (Part 1 - CCN courses only):	n/a
Primary Method of Evaluation:	3) Skills demonstration

Typical Assignment Using Primary Method of Evaluation:	Present an oral report explaining the procedures to perform the "Annual Pressure Relief Systems Test" and demonstrate the test to the class.
Critical Thinking Assignment 1:	Presented with an emergency driving situation involving a skid, identify the techniques used to recover the vehicle from the skid, giving consideration to traffic conditions and safety of other motorists. Prepare a two-page report and submit to the instructor.
Critical Thinking Assignment 2:	Conduct an Annual Service Test on a fire engine. During the test, verbally identify problems that may occur while the test is in progress and demonstrate to the instructor the steps needed to correct the problem.
Other Evaluation Methods:	Multiple Choice, Performance Exams, True/False
If Other:	
Instructional Methods:	Demonstration, Lab, Lecture, Other (specify)
If other:	Skid demonstrations
Work Outside of Class:	Answer questions, Required reading, Skill practice
If Other:	
Up-To-Date Representative Texts:	International Fire Service Training Association, Pumping and Aerial Apparatus Driver/Operator Handbook, 3rd ed., International Fire Service Training Association, 2015. (Discipline Standard)
Alternative Texts:	
Required Supplementary Readings:	
Other Required Materials:	
Requisite	Prerequisite
Category	non-course
Requisite course:	
Requisite and Matching skill(s): Bold the requisite skill. List the corresponding course objective under each skill(s).	
Requisite Skill:	Hold a valid Class C driver's license (minimum). State Fire Marshal requirement.
Requisite Skill and Matching skill(s): Bold the requisite skill(s). if applicable	Because of the fire apparatus that students operate in this course, they must hold a valid Class C driver's license (minimum). This is a State Fire Marshal requirement. Students must have the ability to operate a fire apparatus.
Requisite course:	Fire and Emergency Technology 1
Requisite and Matching skill(s): Bold the requisite skill. List the corresponding course objective under each skill(s).	Student should have a general knowledge of the various types of contemporary fire apparatus. FTEC 1 - Discuss the types of common fire department apparatus, equipment, and personal safety equipment used for firefighting.
Requisite Skill:	

Requisite Skill and Matching skill(s): Bold the requisite skill. List the corresponding course objective under each skill(s). if applicable	
Enrollment Limitations and Category:	
Enrollment Limitations Impact:	
Course Created by:	Matthew Kline
Date:	11/01/2024
Original Board Approval Date:	06/26/2025
Effective Term:	FA 2026