

Course Outline of Record

Los Medanos College

2700 East Leland Road

Pittsburg CA 94565

(925) 439-2181

Course Title: Fundamental of Fire Prevention

Subject Area/Course Number: FIRE-105

Institutional Student Learning Outcomes

The development of institutional SLOs is overseen by the Teaching and Learning Project in collaborations with the General Education Committee, the Occupational Education Committee, the Developmental Education Program, the Student Services Advisory Committee, and the faculty and staff representing the Library & Learning Support Services.

Check the institutional student learning outcomes (or category of outcomes) below that are reflected in your course:

- General Education SLOs (Recommended by GE Committee)**
At the completion of the LMC general education program, a student will:
1. Read critically and communicate effectively as a writer and speaker.
 2. Understand connections among disciplines and apply interdisciplinary approaches to problem solving.
 3. Think critically and creatively.
 4. Consider the ethical implications inherent in knowledge, decision-making and action.
 5. Possess a worldview informed by diverse social, multicultural and global perspectives.
- (Each of the above student learning outcomes for the general education program has a written explanation with illustrations and examples of its application within courses, as well as specific assessment criteria. Consult the GE program information pages.)
- Occupational Education SLOs (Recommended by Occupational Education Committee)**
At the completion of the LMC occupational certificate or degree, a student will:
1. Be academically prepared to **obtain an entry-level or a mid-level position** in their industry.
 2. Apply **critical thinking** to research, evaluate, analyze and synthesize information.
 3. Demonstrate strong **communication skills** (written and/or oral) and **interpersonal skills** (customer service and team work).
 4. Appropriately apply **industry materials and technology**.
 5. Demonstrate the skills and knowledge necessary to take and pass **certification exams** for career **advancement** in their industry.
- (Individual certificates or degree programs in occupational education may adopt some or all of these SLOs. Please check all those that apply to this course.)
- Developmental Education SLOs (Recommended by Developmental Education Committee)**
At the completion of the LMC Developmental Education Program, a student will:
1. Demonstrate the skills necessary for the first transfer level courses in English and Math or for the English and Math competencies for the Certificate of Achievement.
 2. Think critically to construct meaning and solve problems.
 3. Read with comprehension.
 4. Communicate effectively both in writing and orally.
 5. Demonstrate the characteristics, habits, and attitudes of an effective learner.
- Student Services SLOs**
1. LMC students will demonstrate proficiency in the use of college on-line services.
 2. LMC students will demonstrate proficiency in self-advocacy.
- Library and Learning Support Services SLOs**
LMC students utilizing various Library and Learning Support Services will:
1. Access and effectively utilize available campus Library and Learning Support Services.
 2. Apply knowledge learned and competencies gained from using Library and Learning Support Services to academic coursework and assignments.
 3. Demonstrate information competency skills needed to meet the research demands of academic course work and life long learning.
- None of the Above**

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Program-Level Student Learning Outcomes (PSLOs)

Identify the program (eg. Nursing, Engineering), major (eg. Music, Chemistry), or sequence of courses (eg. ESL) to which this course belongs. List 3-8 over-arching or broad student learning outcomes for the program, major, or course sequence that this course is designed to help students attain.

Students graduating from the Fire Technology Department can graduate with an A.S. degree.

By the completion of this degree, the student will be able to:

- 1) Be academically prepared to obtain an entry-level position as a Firefighter in the Fire Service.
- 2) Apply critical thinking to research, evaluate, analyze and synthesize Fire Service information.
- 3) Demonstrate through written and oral communication skills a broad knowledge of Fire History, Fire Chemistry and Behavior, Fire Prevention and Building Construction as it applies to Firefighting.
- 4) Appropriately apply the Fire Technology based information attained in this degree for success in the Fire Service.
- 5) Apply the skills and knowledge from this degree towards potential advancement in the Fire Service.

Course-Level Student Learning Outcomes (CSLOs): What abilities will the student have at the end of this course?

List 3-8 over-arching or broad student learning outcomes for this course. These are the course "objectives" written in terms of what the student will know or be able to do at the end of the course. Title V requires that courses for Associate Degree credit must have SLOs that "reflect critical thinking and the understanding of application of concepts determined by the curriculum to be at college level". Relate these course-level SLOs to the program-level SLOs and/or Institutional SLOs, as appropriate.

Please refer to the Curriculum Handbook for more information on how to complete this section and for the Curriculum Committee's criteria for evaluating this section of the course outline.

By the end of this course, the student will be able to:

- 1) Students will identify, analyze, and address hazardous scenarios. (PSLO 1 and 3).
- 2) Demonstrate through written and oral communications knowledge of how to apply fire prevention methods such as fire inspection, fire code application and enforcement, and fire safety public education, to achieve fire safety and promote goodwill in the community. (PSLO 2 and 3).
- 3) Apply fire prevention principles, fire codes, fire regulations and laws to the needs of given communities. (PSLO 3).
- 4) Describe the functions of a fire prevention bureau and assess each component and be able to defend them. (PSLO3).
- 5) Outline the basic principles and practices of fire prevention and how to apply them in the real world. (PSLO 1 and 2).

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CSLO Assessment Criteria:

Give the criteria that will be used to judge whether students have attained the course-level student learning outcomes. Use the following general sentence to present your assessment criteria for each CSLO:

1. To demonstrate the ability to identify, analyze, and address hazardous scenarios, students will develop action plans to respond to given scenarios. Their action plans will be assessed by the following criteria:
 - The action plan correctly assesses risks involved and addresses them with solutions that are viable and applicable given the context of the scenario.
2. To demonstrate knowledge of fire prevention methods such as fire inspection, fire code application and enforcement, and fire safety public education, the student will develop a fire prevention plan for a hypothetical community.
 - The fire prevention plan will be developed by collecting, and accurately analyzing the community's fire safety data, establishing and prioritizing viable options, and applying fire prevention functions such as fire code inspection, fire code enforcement, in their proper sequences.
 - The student will develop their plan based upon recognized industry standards; and be able to present and defend their conclusions.
3. The student's ability to apply fire prevention, fire codes, fire regulations and laws to the needs of a given community will be assessed by the following criteria:
 - Accurate analysis of risk level to the community.
 - Appropriate and effective solutions to given problems.
 - Defensible recommendations that may be made to a community based organization.
4. In order to assess the student's ability to describe the functions of a fire prevention bureau, assess each component and its applications students will present orally or in writing a report that
 - accurately describes each component of a fire prevention bureau
 - provides a comprehensive assessment of each component
 - Clearly explains how each component is applied in real life settings
 - Presents a compelling defense of each component
5. To outline the basic principles and practices of fire prevention and how to apply them in the real world, the student will prepare a written report using a fire prevention principle or practice of their choice and applying it to a hypothetical scenario. The student must be able to determine and analyze potential risks found, assemble feasible solutions and justify the prevention principles and practices selected

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Assessments: What instruments (eg. tests, papers, projects, assignments etc.) will be used to assess student learning outcomes?

Homework Assignments: CSLO's #2 and 3

Students have twelve reading assignments on fire prevention subjects. They must write a one-two page paper summarize relevant information, analyze the strategies presented, determine which tenets apply and recommend particular strategies for a given scenario.

Students will locate and cite the relevant codes and laws that pertain to fire prevention in order to justify their selected course of action.

Quizzes: CSLO #3

There are twelve quizzes during the course. Each quiz covers the weekly lecture and the assigned reading. They are used to check on the students' comprehension of fact-based material presented in the readings and lecture information.

Midterm and Final Exams: CSLO's #1, 2, 3 and 4

The Midterm exam covers the first half of the course materials and the Final Exam covers the entire semester's materials. The student will describe the various functions of a fire prevention bureau, analyze given hazardous situations, and apply the appropriate prevention solutions.

Class Project: CSLO's #2, 3, 4, and 5

Each student must prepare a written report based up a fire prevention subject of their choice. They will collect, and analyze data, develop their subject matter based upon recognized industry standards; and be able to present and defend in writing their conclusions.

Class Discussion: CSLO's #1, 2, and 3

Case studies are used as a means of apply critical thinking to fire hazard and life safety problems in order to evaluate, analyze and synthesize a fire prevention solution.

Method of Evaluation/Grading: Explain how "the course provides for measurement of student performance in terms of stated course objectives", Title V. (LMC calls "objectives", CSLOs.) Grading should be based on demonstrated proficiency in achieving the learning outcomes. Referring back to the CSLO assessment criteria, contrast A-level work with C-level work. In addition, indicate the percentages or points (or a range of percentages or points) for each type of assignment. *Implementation date: Spring 2008*

NOTE: In the following sample syllabus grading structure, assume that all CSLO's are equally weighted.

Quizzes: 18.75%: CSLO #3	120 Points
Homework Assignments: 18.75%: CSLO's #2, and 3	120 Points
Written Report: 15.6%: CSLO's #2, 3, 4, and 5	100 Points
Midterm Exam: 15.6%: CSLO's #1, 2, 3, and 4	100 Points
Final Exam: 31.25%: CSLO's #1, 2, 3, and 4	<u>200 Points</u>
Total Possible:	640 Points

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Grading is done on a straight percentage scale:

- 90 – 100% = A
- 80 - 89% = B
- 70 – 79% = C
- 60 – 69% = D
- 0 – 59% = F

Course Content: Provide the detailed content of the course.

Orientation of the Course 1 hour

History and Organization:

The Basis of Fire Prevention 3 hours

Public and Private Fire Prevention Organizations 6 hours

Fire Prevention Functions:

The Fire Prevention Code Enforcement Process 3 hours

Fire Safety Plan View 3 hours

Fire Safety Inspection 3 hours

The Fire Prevention Investigation Process 3 hours

Fire Prevention through Public Education 3 hours

Fire Protection Systems Testing 3 hours

Other Fire Prevention Functions 3 hours

Fire Prevention Record Keeping 3 hours

Fire Prevention Personnel 3 hours

Fire Prevention Financial Management 3 hours

Fire Prevention through Building Construction 3 hours

Other Activities:

Field Trip 2 hours

Course Review 3 hours

Exams:

Midterm and Final Exam 6 hours

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Instructional Methods: Check all the instructional methods that will be used in teaching this course. Keep in mind that the method of instruction and activities should relate to the CSLOs.

- Lecture
- Lab
- Activity
- Problem-based Learning/Case Studies
- Collaborative Learning/Peer Review
- Demonstration/Modeling
- Role-Playing
- Discussion
- Computer Assisted Instruction
- Other (explain): Field Trip

Textbooks: Indicate name of text (or list of text choices), author, publisher and date of publication. Date of publication has to be within 5 years of authoring course outline. For degree applicable courses, text should be **College Level**. Include sample pages and the contents page of the instructor designed module if it is the only text.

Diamantes, *David* Principles of Fire Prevention
New York: Thomson Delmar Learning, Clifton Park, 2005

(NFPA) Standards: Massachusetts: National Fire Protection Association (NFPA), current editions

NFPA Journal Selected articles