

FIP 260
FIRE PROTECTION PLANNING

COURSE DESCRIPTION:

Prerequisites: None

Corequisites: None

This course covers the need for a comprehensive approach to fire protection planning. Topics include the planning process, using an advisory committee, establishing goals and objectives, and techniques used to approve and implement a plan. Upon completion, students should be able to demonstrate a working knowledge of the concepts and principles of planning as they relate to fire protection. Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

COURSE OBJECTIVES:

Upon completion of this course, the student will be able to:

- a. Conduct a pre-planning program to study feasibility of a master plan.
- b. Construct a cost analysis of a master plan.
- c. Prepare a proposal for a master plan.
- d. Establish fire management areas.
- e. Define all fire problems in the community.
- f. Set the planning goals and objectives.
- g. Develop plan selection criteria.
- h. Generate several alternative master plan systems.
- i. Select a master plan from alternative plans.
- j. Prepare short, medium, and long range master plans.
- k. Determine manpower, equipment, and location needs.
- l. Implement a master plan.

OUTLINE OF INSTRUCTION:

- I. The nature of master planning
 - a. The planning function
 - b. Needs assessment
 - c. The need for inter-agency planning
 - d. The planning process
- II. The preplanning phase
 - a. The preplanning committee
 - b. Determination of the need for a plan
 - c. Determination of a methodology
 - d. Cost analysis of a plan
- III. Preparation of the proposal
 - a. Definition of the approval process
 - b. Identification of the planning committee

- c. Determination of the planning schedule
 - d. Preparation of the briefing materials
- IV. Development of the master plan
- a. Determination of fire management areas
 - b. Establishment of fire demand zones
 - c. Identification of data required
 - d. Definition of a data collection methodology
- V. Definition of fire problems
- a. Identification of major risks
 - b. Identification of key risks
 - c. Identification of typical risks
 - d. Selection of planning risks
 - e. Preparation of fire incidence profiles
 - f. Definition of the fire system management situation
- VI. Establishment of planning objectives
- a. Definition of fire protection goals
 - b. Definition of fire related objectives
 - c. Definition of community objectives
 - d. Definition of system management objectives
- VII. Development of selection criteria
- a. Establishment of cost criteria
 - b. Establishment of cost measurements
 - c. Assignment of priorities
 - d. Establishment of benefit criteria
 - e. Establishment of benefit measurements
 - f. Establishment of legislation compliance criteria
 - g. Establishment of political criteria
- VIII. Determination of alternative systems
- a. Definition of a baseline system
 - b. Comparison of alternative systems
 - c. Evaluation by objects
- IX. Analysis of system functions and resources
- a. Definition of current system
 - b. Definition of baseline system
 - c. Definition of alternative systems
 - d. Performance of resource analysis on all systems
- X. Comparison of alternative system plans
- a. Cost and revenue comparison
 - b. Performance of comparative benefit analysis
 - c. Performance of comparative legislative compliance analysis
 - d. Performance of comparative political analysis
 - e. Performance of uncertainty analysis
 - f. Performance of sensitivity analysis

- XI. Selection process for a master plan
 - a. Evaluation of systems by objectives
 - b. Comparison and ranking by performance criteria
 - c. Selection and approval process

- XII. Preparation of the master plan
 - a. Goals and objectives
 - b. Current year plan
 - c. Two- to five-year plan
 - d. Six- to ten-year plan
 - e. Functions, authorities, and responsibilities of the plan
 - f. Policies and procedures of the plan
 - g. Special projects under the plan

- XIII. Fire problem documentation
 - a. Fire problem location in the community
 - b. Occupancy categories
 - c. The UBC cross reference index
 - d. Estimation of fire flow requirements

- XIV. Fire protection resources
 - a. Determination of personnel requirements
 - b. Determination of apparatus requirements
 - c. Determination of water flow requirements
 - d. Determination of station location requirements
 - e. Determination of operational procedural requirements

- XV. Implementation
 - a. Task assignment selection
 - b. Data acquisition and analysis
 - c. Monitoring and report systems
 - d. Evaluation and modification process

REQUIRED TEXTBOOK AND MATERIALS:

Textbooks to be selected by instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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