MASTER SYLLABUS

COURSE NUMBER AND TITLE: PSM 383-3 Data Interpretation

I. PSM MISSION STATEMENT:
Fire Science Management is a broad based fire management educational program designed to augment and develop managerial skills necessary for a career in the fire service or continued advancement within the field.

II. COURSE DESCRIPTION:
A course designed for students beginning their major program of study to examine data use in their respective professions. Emphasis will be placed upon an understanding of the basic principles and techniques involved with analysis, synthesis and utilization of data.

III. PREREQUISITE: Fire Science major or consent of department

IV. Required Textbook:
The basic practices of statistics
(5th Ed.) Moore, D.S.
ISBN: 9781429224260

V. COURSE OUTCOMES:

Outcome #1: 10%
Cognitive Objective: The student will be able to identify and describe sources of data.

Outcome #2: 20%
Cognitive Objective: The student will be able to discuss specific uses of data.

Outcome #3: 20%
Cognitive Objective: The student will be able to interpret different presentations of data.

Outcome #4: 20%
Cognitive Objective: The student will be able to understand and apply basic statistical treatments to data.

Outcome #5: 20%
Cognitive Objective: The student will be able to identify and discuss study designs.

Outcome #6: 10%

Cognitive Objective: The student will be able to understand and apply data in making management related decisions.

TOPICAL OUTLINE:

Topics

I. National data sources
   A. Census data
   B. National surveys

II. Local data sources
   A. Feasibility studies
   B. Status profiles

III. Data uses
   A. Program planning
   B. Program evaluation
   C. Legislation

IV. Data presentations
   A. Histograms
   B. Pie and linear graphs
   C. Maps

V. Statistical treatments
A. Mean
B. Median
C. Mode
D. Standard deviation
E. Rates
F. Ratios

VI. Designs

A. Surveys
B. Prospective studies
C. Retrospective studies
D. Cohort studies
E. Experimental studies

VII. Data use in decision-making

A. Cost function
B. Personnel utility
C. Control charts
D. Forecasting