

Master Syllabus

FST 1111 - Fire Behavior & Combustion

Division: Business and Public Services

Department: Fire Science Technology

Credit Hour Total: 3.0

Lecture Hrs: 3.0

Date Revised: June 2014

Course Description:

This course explores the theories and fundamentals of how and why fires start, spread and are controlled. Also included in this course are related engineering and fire science principles.

General Education Outcomes:

- Critical Thinking/Problem Solving Competency

Course Outcomes:

Extinguishing Agents

Articulate characteristics and the safe use of various extinguishing agents.

Assessment Method: Oral examination

Performance Criteria: Correctly answer at least 70% of oral questions

Physics and Chemistry of Fire

Describe the physical and chemical properties of fire.

Assessment Method: Locally developed exams

Performance Criteria: Correctly answer at least 70% of exam questions

Materials

Identify various materials and their relationship to fires as fuel.

Assessment Method: Locally developed exams

Performance Criteria: Correctly answer at least 70% of exam questions

Fire Dynamics

Describe the dynamics of fire.

Assessment Method: Locally developed exams

Performance Criteria: Correctly answer at least 70% of exam questions

Outline:

Ignition theory
Chemistry related to fire
Physics related to fire
Extinguishment theory and agents
Materials and fire
Smoke and fire
gases