

## 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

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#### 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