

Bossier Parish Community College  
Master Syllabus

**Course Prefix and Number:** FRSC 120

**Credit hours:** 3

**Course Title:** Fire Behavior and Combustion

**Course Prerequisites:** FRSC 100: Principles of Emergency Services or instructor approval

**Textbook(s):** Friedman, R., Principles of Fire Protection Chemistry and Physics, 4<sup>th</sup> ed., Jones and Bartlett

**Software / Hardware:**

An electronic textbook is available with added learning resources available from the publisher of the text book. The student must have access to a computer with applicable hardware, software and internet access the online learning management system (Canvas)

**Course Description:** This course explores the theories and fundamentals of how and why fires start, spread and are controlled.

**Learning Outcomes:**

At the end of the course, the student will be able to

- A. Identify the fundamental theories of fire behavior and combustion by demonstrating effective critical thinking and mathematical skills
- B. Differentiate the various types of extinguishing agents

To achieve the learning outcomes, the student will be able to

1. Identify physical properties of the three states of matter. (A)
2. Categorize the components of fire. (A)
3. Explain the physical and chemical properties of fire. (A)
4. Describe and apply the process of burning. (A)
5. Define and use basic terms and concepts associated with the chemistry and dynamics of fire. (A)
6. Explain the effect and dangers of air movement of the combustion process. (A)
7. Discuss various material and their relationship to fires as fuel. (A)
8. Demonstrate knowledge of the characteristics of water as a fire suppression agent. (B)
9. Articulate other suppression agents and strategies. (B)
10. Compare other methods and techniques of fire extinguishments. (B)

**Course Requirements:**

To earn a grade of “C” or higher the student must earn 70 % of the total points for the course and meet all the following course requirements

1. The student must successfully complete the course with an average of 70% or above on the combined learning outcomes.
2. Each student is expected to attend classes regularly; excessive unexcused absences constitute grounds for suspension (refer to the student handbook for attendance policies).
3. Each student must have access to a reliable Internet connection to complete online discussion boards, course assignments, quizzes and tests.

**Course Grading Scale:**

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

**Attendance Policy:** The college attendance policy (for the classroom) is available at <http://www.bpcc.edu/catalog/current/academicpolicies.html>

**Course Fees:**

This course is accompanied with an additional non-refundable fee for supplemental materials, laboratory supplies, software licenses, certification exams, and/or clinical fees.

**Non-Discrimination Statement:**

Bossier Parish Community College does not discriminate based on race, color, national origin, gender, age, religion, qualified disability, marital status, veteran's status, or sexual orientation in admission to its programs, services, or activities, in access to them, in treatment of individuals, or in any aspect of its operations. Bossier Parish Community College does not discriminate in its hiring or employment practices.

**COORDINATOR FOR SECTION 504 AND ADA**

Angie Cao, Student and Disability Services Specialist  
Disability Services, F254, 6220 East Texas Street, Bossier City, LA 71111  
318-678-6511  
[acao@bpcc.edu](mailto:acao@bpcc.edu)

Hours: 8:00 a.m.-4:30 p.m. Monday - Friday, excluding holidays and weekends.

**Equity /Compliance Coordinator**

Teri Bashara, Director of Human Resources  
Human Resources Office, A-105  
6220 East Texas Street  
Bossier City, LA 71111  
Phone: 318-678-6056

Hours: 8:00 a.m.-4:30 p.m. Monday - Friday, excluding holidays and weekends.

Reviewed 5/22 Bevan