

COURSE SYLLABUS

COURSE OBJECTIVES

To provide the student with an introduction to fire behavior and combustion theory as it relates to firefighter operations and life safety. Course will cover periodicity terms, the structure of matter, why compounds bond, classification of matter, characteristics of flammable liquids, simple gas laws, and fire control methods & systems. **Required text:** *Levy's Hazmat Chemistry Study Guide, 2nd Edition*, Firebelle Productions, 2010

STUDENT LEARNING OUTCOMES

1. Critically assess the principles of chemistry and physics when anticipating the effects and behavior of fire.
2. Compare and contrast the principles of chemistry and physics by the use of case study analysis and group discussion.
3. Evaluate and solve fire control problems by the control of fuel, heat, oxidizing agents, and chain reaction.

Students needing accommodations should inform the instructor. As required by the Americans with Disabilities Act (ADA), accommodations are provided to insure equal access for students with verified disabilities. To determine if you qualify or need assistance with an accommodation, please contact ACCESSIBILITY SUPPORT CENTER (Formerly DSPS), Room 1073, (831) 479-6379.

ATTENDANCE/ONLINE PARTICIPATION: This online course will also require active participation each week. Required weekly discussions, written assignments, quizzes, as well as the midterm and final exam. Your online instructional sessions require that you not miss more than three weekly sessions. Your attendance each week will be **solely** credited upon providing a response to each week's Discussion Topic. Not participating in weekly Discussion Topics for four sessions will result in being dropped from the course.

IMPORTANT DATES:

Last day to add or drop (with a refund) full term classes:	September 10
Last day for students to withdraw without a "W" (full term course):	September 11
Withdrawal deadline with a "W" (full term course):	November 15

GRADING SCHEDULE

Discussions	80 points available
12 Assignments (15 points each)	180 points available
14 Quizzes (20 points each)	240 points available
Midterm	250 points available
Final Exam	250 points available

1,000 points total	900 – 1,000	A
	800 – 899	B
	700 – 799	C
	600 – 699	D
	500 or less	F

FT-5 COURSE SCHEDULE

<u>DATE</u>	<u>Week#</u>	<u>Topics</u>	<u>Assignment</u>
8/29/22	1	Orientation and Introduction THE BASIC STUFF	Self-Introduction Essay Discussion Topic
9/05/22	2	THE LANGUAGE OF SCIENCE STRUCTURE OF MATTER	Discussion, Essay, Quiz
9/12/22	3	COMPOUNDS AND BONDING	Discussion, Essay, Quiz
9/19/22	4	SALTS AND NON-SALTS	Discussion, Essay, Quiz
9/26/22	5	HYDROCARBONS	Discussion, Essay, Quiz
10/03/22	6	HYDROCARBON DERIVATIVES 1	Discussion, Essay, Quiz
10/10/22	7	HYDROCARBON DERIVATIVES 2	Discussion, Essay, Quiz
10/17/22	8	MIDTERM EXAM WEEK	Midterm Exam
10/24/22	9	REACTIONS	Discussion, Essay, Quiz
10/31/22	10	HEAT AND ITS EFFECTS PROPERTIES OF COMBUSTION	Discussion, Essay, Quiz
11/07/22	11	FIRE BEHAVIOR THE MEASUREMENT OF HEAT	Discussion, Essay, Quiz
11/14/22	12	FLAMMABLE LIQUIDS	Discussion, Essay, Quiz
11/21/22	13	FLAMMABLE GASES	Discussion, Essay, Quiz
11/28/22	14	CHEMISTRY OF COMBUSTION AND CONTROL	Discussion, Essay, Quiz
12/05/22	15	COURSE REVIEW	
12/12-17/22	16	FINAL EXAM WEEK	Final Exam