

THREE RIVERS COMMUNITY COLLEGE CHEMISTRY FOR EMERGENCY RESPONSE - COURSE SYLLABUS

COURSE TITLE: Chemistry for Emergency Response
CLASS HRS: 3
INSTRUCTOR: James Turner (Jim)
CONTACT INFO: (860) 599-9700
CLASS DAY & TIME: Wednesday & Thursday, 6:00 PM to 9:15 PM
REQUIRED TEXT: Hazardous Materials Chemistry, 2nd Edition

COURSE NO: FTA 125
CREDIT HRS: 3
SEMESTER: Fall 2009
E-MAIL: jturner@trcc.commnet.edu
CLASS ROOM: Thames Campus, Room B114
AUTHOR: Armando S. Bevelacqua

COURSE OBJECTIVE:

Together we'll explore the hazardous materials challenges that fire service professionals face, with a focus on developing an understanding of Chemistry.

GRADING:

Score	Grade	GRADING NOTES	
A	96 – 100	<p>Academic Honesty - Three Rivers Community College adheres to Academic Honesty in addition to the Student Discipline Policy, sections 2:10 and 3:1-10, as provided by the Board of Trustees of Connecticut Community Colleges. Please review your 2009-2010 College Catalog for details.</p> <p>Late Work - I reserve the right to deduct 10% from the possible points that you may receive for an assignment, for each class session that an assignment is late, up to three class sessions. After three class sessions, I will record a zero (0) for that assignment, unless you have made previous arrangements with me and only in exceptional circumstances. All assignments must be submitted by the end of the last class.</p> <p>Incompletes - An incomplete is a temporary grade assigned by the faculty member when course work is missing and the student agrees to complete the requirements. The student and instructor both must sign a contract to permit an "incomplete" grade. The contract will denote what must be completed to resolve the "I" grade. The "I" must be resolved by the end of the 10th week of the next academic semester (except summer) or it automatically converts to an "F" or "NC" for incomplete (remedial) courses.</p>	
A-	90 – 95		
B+	87 – 89		
B	83 – 86		
B-	80 – 82		
C+	77 – 79		
C	73 – 76		
C-	70 – 72		
D+	67 – 69		
D	63 – 66		
D-	62 – 60		
F	BELOW 59		
SPECIAL NOTE(S):			ASSIGNMENT WEIGHTING:
No classes on 11/25 and 11/26 Last Class is December 16 th			Quizzes: 80% Final: 20%

WEEKLY OBJECTIVES

Week 1 – October 21

1. Course Overview; Structure of Atoms; Periodic Table; Chemical Bonding; Properties of Matter; Toxicology
2. Assignment: Read Chapter 1 & 2; Memorize Elements

Week 2 – October 22

1. **Quiz – Elements**
2. Ionic Bonding; Symbols & Structure; Binary Compounds; Metal Oxides
3. Assignment: Read Chapter 2

Week 3 – October 28

1. Inorganic Peroxides; Covalent Bonding; Ionic/Covalent Properties; Oxysalts
2. Assignment: Read Chapter 2

Week 4 – October 29

1. **Quiz - Bonding**
2. Acid/Base Reactions; Metal Hydroxides; Inorganic Acids; Binary Acids
3. Assignment: Read Chapter 2

Week 5 – November 4

1. Hydrates; Binary Non-Salts; Non-Metal Oxides; Other Inorganic Compounds
2. Assignment: Read Chapter 3

Week 6 – November 5

1. **Quiz - Acids**
2. Combustion; Radiation; Principles of Bonding; Organic Structure & Nomenclature
3. Assignment: Read Chapter 3

Week 7 – November 11

1. Alkanes; Alkenes; Alkynes; General IUPAC Naming
2. Assignment: Read Chapter 3

Week 8 – November 12

1. **Quiz – Organic Structure**
2. Aromatics; Kinetic Molecular Theory; Branching & its Effect; Organic Functional Groups
3. Assignment: Read Chapter 4

Week 9 – November 18

1. Alkyl Halides; Amines; Nitrogen Groups; Ethers & Peroxides
2. Assignment: Read Chapter 4

Week 10 – November 19

1. **Quiz – Ethers & Peroxides**
2. Organic Peroxides; Polymers; Branching & its Effects; Alcohols, Phenols, Sulfur Analogs
3. Assignment: Read Chapter 5

THREE RIVERS COMMUNITY COLLEGE
CHEMISTRY FOR EMERGENCY RESPONSE - COURSE SYLLABUS

Week 11 – December 2

1. Carbonyl Groups; Aldehydes; Ketones; Esters
2. Assignment: Read Chapter 5

Week 12 – December 3

1. **Quiz - Carbonyls**
2. Organic Acids; Acyl Halides; Amides; Cyanide Salts; Isocyanates
3. Assignment: Read Chapter 6

Week 13 – December 9

1. CBRNE; Decision-Making Process; Scene Considerations; Environmental Influence
2. Assignment: Read Chapter 6

Week 14 – December 10

1. **Quiz - CBRNE**
2. Chemical Influence; General Monitoring & Detection; PPE; Decontamination
3. Assignment: Take Home Final Exam

Week 15 – December 16

1. **Final Exam Due**