

Montgomery County Community College
FSC 100
Introduction to Fire Science
3-3-0

COURSE DESCRIPTION:

This course will provide an introduction to the history and philosophy of fire protection; a review of fire losses; a discussion of the relationship between fire prevention and fire control and extinguishment; a career orientation; current legislative developments; a review of current and future fire protection.

REQUISITES:

Previous Course Requirements

None

Concurrent Course Requirements

None

LEARNING OUTCOMES Upon successful completion of this course, the student will be able to:	LEARNING ACTIVITIES	EVALUATION METHODS
1. Describe and discuss the history and philosophy of the modern day fire service.	Assigned Readings Lectures Discussions Case Study Analysis AV/Multimedia Materials Internet Field Trips Field Trips Essay Assignments Directed Research Quizzes and Exams	Multiple-Choice Exam Graded Essay Graded Essay Exam Assignments Graded Research Project Individual or Group Presentation Graded Class Discussion Graded Case Study
2. Analyze the basic components of fire as a chemical reaction, the major phases of fire, and examine the main factors that influence fire spread and fire behavior.	Assigned Readings Lectures Discussions Case Study Analysis AV/Multimedia Materials Internet Field Trips Field Trips Essay Assignments Directed Research Quizzes and Exams	Multiple-Choice Exam Graded Essay Graded Essay Exam Assignments Graded Research Project Individual or Group Presentation Graded Class Discussion Graded Case Study

LEARNING OUTCOMES	LEARNING ACTIVITIES	EVALUATION METHODS
3. Differentiate between fire service training and education; fire protection certificate programs and a fire service degree program; and explain the value of education in the fire service.	Assigned Readings Lectures Discussions Case Study Analysis AV/Multimedia Materials Internet Field Trips Field Trips Essay Assignments Directed Research Quizzes and Exams	Multiple-Choice Exam Graded Essay Graded Essay Exam Assignments Graded Research Project Individual or Group Presentation Graded Class Discussion Graded Case Study
4. List and describe the major organizations that provide emergency response services and illustrate how they interrelate.	Assigned Readings Lectures Discussions Case Study Analysis AV/Multimedia Materials Internet Field Trips Field Trips Essay Assignments Directed Research Quizzes and Exams	Multiple-Choice Exam Graded Essay Graded Essay Exam Assignments Graded Research Project Individual or Group Presentation Graded Class Discussion Graded Case Study
5. Identify fire protection and emergency services careers in both the public and the private sectors.	Assigned Readings Lectures Discussions Case Study Analysis AV/Multimedia Materials Internet Field Trips Field Trips Essay Assignments Directed Research Quizzes and Exams	Multiple-Choice Exam Graded Essay Graded Essay Exam Assignments Graded Research Project Individual or Group Presentation Graded Class Discussion Graded Case Study
6. Synthesize the role of national, state, and local support organizations in fire protection and emergency services.	Assigned Readings Lectures Discussions Case Study Analysis AV/Multimedia Materials Internet Field Trips Field Trips Essay Assignments Directed Research Quizzes and Exams	Multiple-Choice Exam Graded Essay Graded Essay Exam Assignments Graded Research Project Individual or Group Presentation Graded Class Discussion Graded Case Study

LEARNING OUTCOMES	LEARNING ACTIVITIES	EVALUATION METHODS
7. Discuss and describe the scope, purpose, and organizational structure of fire and emergency services.	Assigned Readings Lectures Discussions Case Study Analysis AV/Multimedia Materials Internet Field Trips Field Trips Essay Assignments Directed Research Quizzes and Exams	Multiple-Choice Exam Graded Essay Graded Essay Exam Assignments Graded Research Project Individual or Group Presentation Graded Class Discussion Graded Case Study
8. Describe the common types of fire and emergency services facilities, equipment, and apparatus.	Assigned Readings Lectures Discussions Case Study Analysis AV/Multimedia Materials Internet Field Trips Field Trips Essay Assignments Directed Research Quizzes and Exams	Multiple-Choice Exam Graded Essay Graded Essay Exam Assignments Graded Research Project Individual or Group Presentation Graded Class Discussion Graded Case Study
9. Compare and contrast effective management concepts for various emergency situations.	Assigned Readings Lectures Discussions Case Study Analysis AV/Multimedia Materials Internet Field Trips Field Trips Essay Assignments Directed Research Quizzes and Exams	Multiple-Choice Exam Graded Essay Graded Essay Exam Assignments Graded Research Project Individual or Group Presentation Graded Class Discussion Graded Case Study
10. Identify and explain the components of fire prevention including code enforcement, public information, and public and private fire protection systems.	Assigned Readings Lectures Discussions Case Study Analysis AV/Multimedia Materials Internet Field Trips Field Trips Essay Assignments Directed Research Quizzes and Exams	Multiple-Choice Exam Graded Essay Graded Essay Exam Assignments Graded Research Project Individual or Group Presentation Graded Class Discussion Graded Case Study

At the conclusion of each semester/session, assessment of the learning outcomes will be completed by course faculty using the listed evaluation method(s). Aggregated results will be submitted to the Associate Vice President of Academic Affairs. The benchmark for each learning outcome is that *70% of students will meet or exceed outcome criteria.*

SEQUENCE OF TOPICS:

1. Careers in the Fire Protection & Emergency Services
2. History of the Fire Service
3. Fire Protection Services
4. Apparatus and Equipment
5. Management in the Fire Service
6. Fire Extinguishing Agents
7. Strategy and Tactics
8. Private Fire Protection
9. The Origin and Cause of Fires
10. Municipal Fire Defense
11. Fire Protection Systems
12. Hazardous Materials
13. Fire Code Management
14. Building Construction and Passive Fire Protection Systems

LEARNING MATERIALS:

Klinoff, Robert. (2011). *Introduction to Fire Protection* (4th ed.). Cengage.

Other learning materials may be required and made available directly to the student and/or via the College's Libraries and/or course management system.

COURSE APPROVAL:

Prepared by: Don Nypower	Date: 6/1995
Revised by: Benn Prybutok	Date: 2/22/2009
VPAA/Provost Compliance Verification: Dr. John C. Flynn, Jr.	Date: 9/11/2009
Revised by: Benn Prybutok	Date: 2/2013
VPAA/Provost or designee Compliance Verification: Victoria L. Bastecki-Perez, Ed.D.	Date: 2/25/2013
Revised by: Jayden Sampson	Date: 12/16/2017
VPAA/Provost or designee Compliance Verification:	Date: 12/18/2017



This course is consistent with Montgomery County Community College's mission. It was developed, approved and will be delivered in full compliance with the policies and procedures established by the College.