

SENG 422/677—FIRE PROTECTION ENGINEERING

Instructor: Dr. Jason B. Moats
Phone: 979-458-8551
Email: Jason.Moats@teex.tamu.edu
Textbook: *Guidelines for Fire Protection in Chemical, Petrochemical, and Hydrocarbon Processing Facilities*, American Institute of Chemical Engineers, Wiley Publishing (ISBN 0-8169-0898-2)

Description: Fire Protection design concepts and considerations for chemical, petrochemical, and hydrocarbon processing facilities. Special attention given to fire hazard analysis, fire risk assessment, fire protection features, and emergency response. Specific Fire Protection design considerations are studied for the various types of facilities and processes.

Topics:

- Fire protection engineering
- Management overview
- Fire protection strategy
- Understanding fires
- Fire hazard analysis
- Portable fire extinguishers
- Overview of fire prevention elements
- Fire risk assessment
- Fire protection systems
- Fire protection fundamentals & active systems
- Field trip/tour
- Specific design guidance
- Vapor dispersion, prop 66
- Installation of fire protection systems
- Inspecting, testing, and maintenance
- Fire emergency response
- Active/passive fire protection systems presentations

Objectives:

- Recognize hazards requiring fire protection attention,
- Discuss the function of fire protection design features,
- Compare and contrast passive and active fire protection systems,
- Assess the strengths and weaknesses of fire protection features as it relates to facility/process protection,
- Explain the steps in Fire Hazard Analysis and Fire Risk Assessment and relate the importance for both to fire protection design,
- Relate the importance of Fire Protection Engineering concepts to safety of facility and individuals.

4.2 CEUs	42 PDHs
-------------	------------