SFT 540 - INDUSTRIAL FIRE PROTECTION
College of Information Technology & Engineering
Department of Safety Technology

Semester & Year: Fall 2006

Classroom Location: To Be Determined @ Shawnee  Tuesday  6:00 – 8:30 PM


Pre-requisites: None

Computer Requirements: Ability to conduct Internet search & download information, utilize PowerPoint software to prepare classroom presentations and utilize word processing software to develop student activity reports.

Instructor: Clair Roudebush, Ph.D. CSP
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Course Description: An introductory course that explores the relationship between engineering and fire prevention. Topics include: sprinkler systems, water supplies, behavior and nature of fire, materials, fire protection and extinguishers and other systems.

Course Outcome Objectives:
At the completion of this course the student will be able to:
COO #1 – list the major historical fire events and discuss their relevance to the development of industrial fire protection.
COO #2 – list the major components of fire and describe there interactive relationship.
COO #3 – be able to inspect a commercial building for life safety code violations
COO #4 – be able to inspect a commercial building for building code violations
COO #5 – be able to inspect and review placement requirements of portable fire extinguishers
COO #6 – be able to inspect and review installation requirements for fire detections and fixed suppression systems.
COO #7 – be able to inspect storage requirements for flammable liquids

Adaptive Methods for Disabilities: Students with disabilities who believe that they may need accommodations in this class are encouraged to contact Dr. Roudebush as soon as possible to better ensure that such accommodations are implemented in a timely fashion. A reasonable period of time must be given to Dr. Roudebush when making your initial request for any accommodation.
Course Activities:

Interim Examinations - There will be two interim exams during this course. Only authorized absences with prior approval by Dr. Roudebush, will be accepted for make-up examinations. Make-up exams may or may not be of the same proportioned variety.

Comprehensive Fire Safety Inspection Report - This is a group activity with two students per group. This course activity entails conducting a Fire Safety Inspection of a commercial building in your community. Your group will prepare a written report which details the building’s fire protection features/deficiencies and evaluates management's fire safety planning & control. (Additionally, each group will be required to provide an electronic copy of inspection report).

Oral Presentation of Fire Safety Inspection Report - This course activity entails your group orally presenting the findings of your Comprehensive Fire Safety Inspection Report to the class utilizing PowerPoint software. An electronic copy of the PowerPoint presentation is required to be turned in at the beginning of the presentation All late presentations, cannot be made up without prior instructor approval and made-up only if regularly scheduled class time permits. These PowerPoint presentations will be evaluated using the categorical criteria detailed below.

Fire Causation Report - This course activity involves preparing three (3) different reports regarding fire causation. The NFPA's "FIRE WATCH" article can be utilized as a basis for these reports. FIRE WATCH can be accessed by logging onto the National Fire Protection Association (NFPA) website (at www.nfpa.org). Then click-on NFPA JOURNAL, and click on sub-menu "FIRE WATCH". Chose a topic fire of interest to you and prepare a one (1) to two (2) page report discussing the fire causal factors what steps could be taken to mitigate or prevent the fire from re-occurring. Both information from the FIRE WATCH article and outside/additional information can be used in the development of this report.

Article Summary & Critique - This course activity entails reviewing various professional magazines, journals and web sites in the industrial fire protection field and choosing three (3) different articles that relate to topics found in the course outline. After reading these articles, prepare a one page summary & critique using the format detailed below.
Format for Article Summary & Critique:

SFT 540 - Industrial Fire Protection Article Summary & Critique

Marshall University Safety Technology Program
By: Date:

Author’s Name., Title of article. Full name of journal or professional magazine. Pages, Volume, Date.

Summary: Summarize the article you have reviewed in approximately 1/2 of a single spaced typed page.

Critique: Summarize your comments about the article:
- What is your opinion of article? (good points/bad points)
- What type of article was it? (informative/research based)
- Why was the article written? (to get job promotion, part of grant)
- Was there false statements?/misleading trends?/contradictions?
- What was the “flavor of the article”?
- Do you believe the article was bias?
- Does the article need expanded or condensed?
- Do specific areas of the article need expanded or condensed?

Oral Presentation Evaluation Criteria:

<table>
<thead>
<tr>
<th>Category</th>
<th>Low Criteria</th>
<th>Evaluation</th>
<th>High Criteria</th>
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</thead>
<tbody>
<tr>
<td>PowerPoint Outline</td>
<td>- Minimal Info Provided</td>
<td>10 11 12 13 14 15 16 17 18 19 20</td>
<td>Extensive Info Provided</td>
</tr>
<tr>
<td>Introduction</td>
<td>- Nothing Given</td>
<td>5 5.5 6 6.5 7 7.5 8 8.5 9 9.5 10</td>
<td>Subject Stated Scope &amp; Goal Stated</td>
</tr>
<tr>
<td>Delivery Technique</td>
<td>- No Eye Contact</td>
<td>5 5.5 6 6.5 7 7.5 8 8.5 9 9.5 10</td>
<td>Good Eye Contact Audible Voice Humor</td>
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<tr>
<td>- Distracting Body Moves</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Organization</td>
<td>- Confusion</td>
<td>10 11 12 13 14 15 16 17 18 19 20</td>
<td>On Subject</td>
</tr>
<tr>
<td>Knowledge of Subject</td>
<td>- Reading Notes</td>
<td>5 5.5 6 6.5 7 7.5 8 8.5 9 9.5 10</td>
<td>No Notes Used</td>
</tr>
<tr>
<td>PowerPoint Visual Aids</td>
<td>None Used</td>
<td>10 11 12 13 14 15 16 17 18 19 20</td>
<td>Effectively Utilized</td>
</tr>
<tr>
<td>Time</td>
<td>Over/Under</td>
<td>5 5.5 6 6.5 7 7.5 8 8.5 9 9.5 10</td>
<td>Within Time Limits</td>
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Class Participation & In-class Exercises & Homework Activities – The criteria used to evaluate this student activity includes:

- completion of in-class and out-of-class assignments in a timely fashion
- student’s contribution to classroom discussions throughout the semester
- student’s ability to raise relevant topical questions.

Evaluation / Grade Computation: Course grades are based on “weighted” percentage averages. Your final grade will be derived by multiplying each individual Student Activity score by the weighted percentage and summing all of the weighted percentage averages. All late assignments will incur a 5% penalty per day (including weekends & holidays)

<table>
<thead>
<tr>
<th>Student Activity</th>
<th>Individual Score</th>
<th>Weighted %</th>
<th>Weighted % Average</th>
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</thead>
<tbody>
<tr>
<td>Interim Exams</td>
<td></td>
<td>x 0.30</td>
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<tr>
<td>Comprehensive Fire Safety Inspection Report</td>
<td></td>
<td>x 0.20</td>
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<tr>
<td>Oral Presentation of Comprehensive Fire Safety Inspection</td>
<td></td>
<td>x 0.10</td>
<td></td>
</tr>
<tr>
<td>Three (3) Fire Causation Reports</td>
<td></td>
<td>x 0.15</td>
<td></td>
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<tr>
<td>Three (3) Article Review &amp; Critiques</td>
<td></td>
<td>x 0.15</td>
<td></td>
</tr>
<tr>
<td>Class Participation &amp; In-class Exercises &amp; Homework</td>
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<td>x 0.10</td>
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</table>

Grand Total =

<table>
<thead>
<tr>
<th>Evaluation Scale</th>
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<tbody>
<tr>
<td>90% &amp; Above = A</td>
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<tr>
<td>80% - 89% = B</td>
</tr>
<tr>
<td>70% - 79% = C</td>
</tr>
<tr>
<td>60% - 69% = D</td>
</tr>
<tr>
<td>59% &amp; Below = F</td>
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</tbody>
</table>

Bibliography


**Internet Web Sites**

Academy of Certified Hazardous Materials Managers  wwwachmm.org
American National Standards Institute  www.ansi.org
American Society for Testing and Materials  www.astm.org
American Society of Safety Engineers  www.asse.org
American Society of Mechanical Engineers  www.asme.org
Ansl Fire Protection Equipment  www.ansul.com
CMC Rescue Equipment  www.cmcrescue.com
Construction Safety Council  wwwbuildsafe.org
Grinnell Fire Protection Equipment  www.simplex.com
Insurance Institute of America  www.aicpcu.org
International Standardization Organization  www.iso.ch
International Aviation Fire Protection Association  www.fire.org.uk
National Fire Protection Association  www.nfpa.org
National Safety Council  www.nsc.org
National Institute of Occupational Safety and Health  www.cdc.gov/niosh
Oklahoma State (Fire Protection Publications)  www.ifsta.org
Safety Online  www.safetyOnline.net