

College of Information Technology & Engineering

SFT 465/565

Accident Investigation & Reconstruction

Spring 2006

Text: Modern Accident Investigation and Analysis. Ferry, Ted S. John Wiley and Sons.

Computer Requirements: Ability to use basic computer skills to perform research on the net.

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Office Hours: By appointment

Course Description: An introduction to incident investigation techniques designed to give insight into the recognition and collection of evidence, collecting and recording data, determination of the causes of the incident, and the development of recommendations to prevent the recurrence of the incident, or similar incidents.

Purpose of the Course: The purpose of this course is to gain an understanding of the need for and nature of accident investigation and to know the role of management, labor and other outside agencies which participate in the investigative process. The student will demonstrate skill in investigative procedures and methods for evidence collection by planning and preparing an investigation. Analysis and evaluation techniques will be applied to mishap reports and hazard investigation.

Course Objectives: Students should be able to achieve the following objectives.

1. Determine injury rates, identify trends or problem areas, permit comparisons and satisfy worker's compensation requirements.
2. Describe the basic principles behind successful incident investigations.
3. Identify the essential features of a management system designed to foster and support high quality incident investigations.

4. List detailed information for planning and conducting incident investigations including investigative tools, techniques, and methodologies for determining causes.
5. Use the findings of an investigation to make effective recommendations that can reduce the likelihood of recurrence, or mitigate the consequences of similar incidents (or even dissimilar incidents with common root causes).
6. Plan an effective system for documenting, communicating, and resolving investigation findings and recommendations including a method to track closure of incident recommendations.

Class Work: Classes will consist of lecture and discussions about incident investigation topics. Students are expected to participate in the discussions. The grading scale is as follows. **A** 90-100%, **B** 80-89%, **C** 70-79%, **D** 60-69%, **F** below 59. The grade will be determined from the following.

Quizzes	100 points
Exams	100 points
Final	200 points (comprehensive)
Project/Problem reports	200 points

Quizzes will come directly from a chapter of the text book. It is important that you read each chapter.

All exams including the will be a combination of multiple choices, short answer fill in the blanks and essay exams posing problems dealing with safety issues for the student to critically analyze and expound upon. Exams cover the text book chapters, lectures and discussions.

The Investigation Reports will involve preparing an accident investigation report. The requirements for graduate students will be more comprehensive in nature.

Attendance Policy:

Attending class and participating in class discussions are part of the course. **There will be no make up quizzes!!!** If you miss an exam, you will only be able to make it up by having a University excused absence or Doctor's excuse. Be prompt in notifying me if you are ill. If you miss an examination you will need a doctor's excuse to retake it.

Course Schedule

Week 1	Course & student introductions
Week 2	Chapters 1, & 2
Week 3	Chapters 3 & 4
Week 4	Chapters 5 & 6
Week 5	Chapter 7 & Review
Week 6	Exam 1/Assign Projects
Week 7	Chapter 8, 9 11, & 12
Week 8	Accident Investigation Techniques
Week 9	Chapter 15
Week 10	Class Exercise/Presentation
Week 11	Spring Break
Week 12	Chapter 14
Week 14	Chapter 16, 17 & 18
Week 15	Project Presentations
Week 16	Course Review
Week 17	Final Exam