



MASTER COURSE OUTLINE

Prepared By: Larry Pittack/Mary Scott

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COURSE TITLE

Introduction to Industrial Safety and Health

GENERAL COURSE INFORMATION

Dept.: IST

Course Num: 100

(Formerly:)

CIP Code: 47.0303

Intent Code: 21

Program Code: 768

Credits: 3

Total Contact Hrs Per Qtr.: 33

Lecture Hrs: 33

Lab Hrs:

Other Hrs:

Distribution Designation:

COURSE DESCRIPTION (as it will appear in the catalog)

Introduction to basic industrial safety and health incorporating OSHA/WISHA rules and regulations, personal protective equipment, chemical safety, tool safety, material handling safety, machine safety, electrical safety, fire protection, health protection and safe working practices.

PREREQUISITES

None

TEXTBOOK GUIDELINES

Appropriate textbook as determined by faculty (Example: *Safety and Health* by Schoolcraft Publishing).

COURSE LEARNING OUTCOMES

Upon successful completion of the course, students should be able to demonstrate the following knowledge or skills.

1. Determine responsibility for safety in the workplace.
2. Demonstrate recognition of workplace hazards.
3. Demonstrate how to develop procedures to eliminate or lessen those hazards.
4. Demonstrate the application of basic Federal and State Safety Rules to the workplace

INSTITUTIONAL OUTCOMES

IO3 **Human Relations/Workplace Skills:** Students will be able to demonstrate teamwork, ethics, appropriate safety awareness and/or workplace specific skills

COURSE CONTENT OUTLINE

Topic 1: Make Safety Work

- Responsibility for safety
- Accidents and injuries
- The accident chain
- Built in hazards
- Human influences on safety
- The accident prevention plan

Topic 2: Work Area Safety

- Safety where you work
- Safety around machinery
- Safety at heights - fall protection
- Safety in enclosed areas - confined space entry
- Chemical Safety

Topic 3: Safe Material Handling

- Proper lifting techniques
- Material handling injuries
- Material handling equipment and tools
- Powered industrial trucks and forklifts
- Hoist and cranes
- Rigging, wire, and nylon ropes and slings
- Material and chemical storage

Topic 4: Tool and Equipment Safety

- Hand tools
- Air and electric powered hand tools
- Explosive powder tools
- Certification for explosive powder tools
- Fixed and portable ladders and scaffolds

Topic 5: Machinery Safeguards

- Machinery guarding
- Lockout/tagout of machinery
- Barriers and enclosure guards
- Controls and operating safety

Topic 6: Personal Protection:

- Personal protective equipment
- Respiratory protection program
- Fall protection - safety harnesses and lanyards
- Clothing

Topic 7: Electrical Safety

- The nature of electricity
- Preventing electrical accidents
- Equipment and personal protective grounding
- Hazardous locations and explosion proof fixtures
- Electrical power tools

Topic 8: Hazardous Materials and Operations

- Introduction to process safety management
- Hazardous liquids
- Exposure to chemicals
- Chemical spill response and cleanup
- Industrial noise
- Welding hazards and chemical exposure

Topic 9: Fire Prevention

- How fires start
- Preventing fires and explosions
- Fire fighting agents and extinguishers
- Hot work permits

Topic 10: Understanding OSHA/WISHA

- What is OSHA/WISHA
- Compliance inspections

- Use of consultants
- Recordkeeping requirements

Topic 11: Review

- Comprehensive review of all course materials
- Claims management
- Your resources
- Final examination

DEPARTMENTAL GUIDELINES *(optional)*

DIVISION CHAIR APPROVAL

DATE