

TID 8102: Safety, Health and Environment Management

Hours per semester				Weighted Total Mark	Weighted Exam Mark	Weighted Continuous Assessment Mark	Credit Units
LH	PT	TH	CH	WTM	WEM	WCM	CU
45	00	00	45	100	60	40	3

Course Description

This multidisciplinary course provides specialized advanced training for graduates or occupational health and safety practitioners with an emphasis on risk and safety management and occupational injury, disease prevention and environmental protection. This course has an emphasis on practical and theoretical occupational health and safety (OHS) skills with a strong mix of science and technical practical and theoretical knowledge in the core discipline areas of risk management and accident prevention, ergonomics, occupational hygiene, health and safety economics and management, and compensation and injury management. There is an emphasis on industry based assessment and the development of practical skills.

Course Objectives

This unit covers legislative concepts underpinning contemporary occupational health and safety in occupational health and safety management systems by the application of key managerial principles, functions and skills within an organization. The unit also covers accident investigation, safety management plans and environment protection.

Learning Objectives

The course on Occupational Health, Safety and Environment prepares graduates for work in the preparation and implementation of occupational health and safety programs at the workplace. In many cases, students will be in positions of managerial or professional responsibility, through which they are required to develop policies and strategies in response to the occupational health and safety needs of their organizations.

As well as extending students' skills in raising awareness of occupational health and safety issues and dealing with risks and dangers in the workplace, the program also aims to encourage the desire to promote the health, safety and well-being of others and to help students develop a problem-solving approach to occupational health and safety issues.

Course Content

Introduction to health, safety and environmental issues (2 hours)
Scientific understanding of causes and possible future approaches to control of the major environmental health problems in industrialized and developing countries (9 hours).
Effects of environmental pollutants on human bodies; physical, chemical, and biological agents of environmental contamination; solid and hazardous waste; susceptible populations; biomarkers and risk analysis; the scientific basis for policy decisions; and emerging global environmental health problems. (9 hours)

Human-environment interactions: specifically, environmental factors that influence health i.e. physical, chemical and biological stressors and pollutants that affect the health and wellbeing of individuals and populations. (3 hours)

The role of government in environmental health management. (9 hours)

Hazard identification, dose-response assessment, exposure assessment and risk characterization. Risk assessment and evaluation of hazards; selected examples. Hazard analysis and risk criteria.

Principles and conduct of environmental health risk assessments. (4 hours)

Occupational health and safety. Liability of the legislation and regulations, and the role of safety policy and organisation. Other topics include equal opportunity laws, workers compensation, common law liability, and specific legal aspects relating to women in the paid workforce. (9 hours)

Delivery Method

There delivery will be in form of lectures and assignments that have a research character and explore the state of the art on those topics. During this part, the course provides experience with teamwork, specifically, participating in a team-based real-world project.

Method of Assessment

Class topics cover the basics of managing workplace health and safety. Students learn how to design, evaluate and implement programs that promote safer work environments. They are also taught how to handle emergency situations and, when possible, how to prevent them from occurring.

Reading list/references

1. Richard Welford, Editor,(2007), Corporate Environmental Management Systems and Strategies, Earth Scan, 2nd Edition.
2. William Martin, James Walters, (2010) Safety and Health Essentials for Small Businesses, Butterworth Heinemann.
3. Ken Whitelaw, ISO 14001,(2004) Environmental Systems Handbook, Butterworth Heinemann,
4. A. Edwards,(2003), ISO 14001, Environmental Certification Step by Step, Butterworth Heinemann.
5. William Martin and James Walters. 2001. Safety and Health Essentials: Compliance for Small Businesses. Butterworth and Heinemann.
6. James Roughton and James Mercurio. 2002. Developing an Effective Safety Culture: A Leadership Approach. Butterworth and Heinemann.
7. Sarkis, Joseph; Cordeiro, James J.; Vazquez Brust, Diego (Eds.). 2010. Facilitating Sustainable Innovation through Collaboration: A Multi-Stakeholder Perspective. Springer
8. Krozer, Yoram. 2008. Innovations and the Environment. Springer

