

BENT103 Health and Safety in the Engineering Environment

ECTS Value: 5 ECTS
Self-Study Hours: 94

Contact Hours: 25
Assessment Hours: 6

Overall Objectives and Outcomes

Health and safety is an important cornerstone of any engineering work carried out. This unit will start by looking into the principles of Health & Safety legislation, both Maltese as well as EU. It will then delve into the roles of the various actors involved. There will also be a section in which the participant will be trained in how to identify risks and conduct a formal risk assessment through which risks are prioritised and mitigation action is scheduled. The participants will also be trained in the dangers caused by fire. They will become aware of the different fires (depending on the fuel) and the types of firefighting equipment used for each of the different fire types. Finally, the participant will learn how to be able to deal with procedures needed when incidents occur in the engineering workplace environment.

By the end of this module, the learner will be able to:

Competences

- apply local and EU Health and Safety legislation to the place of work;
- manage the health and safety at the workplace based on the specific roles and responsibilities in relation to the H&S legislation of the employers and employees;
- prevent Hazards which occur in the workplace of an engineering nature such as workshops;
- carry out a suitable risk assessment within an engineering workplace environment based on industry standards and procedures;
- rate types of fires based on their fuel and evaluate best methods used to put them out;
- intervene successfully when incidents occur in the environment of an engineering nature.

Knowledge

- list the key features of Local and EU Health and Safety legislation;
- relate employers' and employees' specific roles and responsibilities in relation to the act;
- state the key features of the minimum requirements for the use of Personal Protective Equipment at Work Regulations, types of PPE, and their applications;
- distinguish hazards which occur in the engineering workplace;
- identify chemical hazards and packaging methods (MSDS, Warning Symbols);
- identify types of fires and methods used to put them out;
- outline the procedures needed when incidents occur in the engineering workplace environment.

Skills

- a. interpret and apply knowledge in relation to current Maltese and EU Health & Safety Legislation;
- b. demonstrate procedure to carry out a suitable risk assessment within an engineering workplace environment;
- c. identify, evaluate and control risk within a workplace environment;
- d. classify the hazards which occur in the workplace;
- e. recommend action to be taken to reduce hazards;
- f. apply the legislative requirements in relation to the Handling, Storage and Disposal of Dangerous Substances;
- g. demonstrate ability to recognise the types of fires and apply methods used to put them out;
- h. apply necessary procedures when incidents occur in the engineering workplace environment.

Assessment Methods

This module will be assessed through: Research Assignment (50%), Presentation (20%), Practical assignment (30%).

Suggested Readings

Core Reading List:

1. European directives on safety and health at work, Retrieved from, <https://osha.europa.eu/en/safety-and-health-legislation/european-directives>
2. Friis Robert H., (2014), Occupational Health and Safety for the 21st Century; Jones & Bartlett Publishers.
3. Main and subsidiary H&S legislation – Laws of Malta; Retrieved from, www.justiceservices.gov.mt
4. Hughes Phil, Ferrett Ed, (2015) Introduction to Health and Safety at Work: The Handbook for the NEBOSH National General Certificate, Second Edition; Routledge.
5. Stranks Jeremy, (2003) The Manager's Guide to Health and Safety at Work, 8th Edition Kogan Page Ltd.