

# Basic Principles in Occupational Hygiene

## Notes and Lesson Plans

### Day 4

#### **Lesson plan: Section 15 – Thermal Environment**

Aims: To provide students with an understanding of the way the human body responds to the thermal environment, how to evaluate it and how to control it.

Objectives:

- Introduce the human body's response to the thermal environment.
- Provide students with an understanding of the different ways of controlling the thermal environment.

Time (mins)	Activity	Resources
60	Lecture by tutor explaining the concepts described in the course manual.  Use local environment to examine sources of heat, cold humidity etc. e.g. windows with sun supplying radiant heat.	PowerPoint

## **Lesson plan: Section 16 – Lighting and Non Ionizing Radiation**

Aims: To provide an introduction to the electromagnetic spectrum and the various bands of non-ionizing radiation, focusing on visible light.

Objectives:

- Introduce Electromagnetic spectrum and differentiate ionizing and non ionizing radiation.
- Introduce common types of non-ionizing radiation; infra red, UV, microwaves and lasers.
- Introduce lighting in the workplace

Time (mins)	Activity	Resources
60	Lecture by tutor explaining concepts described in the course manual.	PowerPoint

## **Lesson plan: Section 17 – Ionizing Radiation**

Aims: Introduction to health effects of ionizing radiation, exposure assessment and control techniques and the specialist roles of those who deal with it.

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### Objectives:

- Provide students with an understanding of the different types of radiation.
- Provide students with an understanding of the health effects of radiation.
- Provide students with an understanding of how radiation is monitored and controlled.

Time (mins)	Activity	Resources
60	Lecture by tutor explaining the concepts described in the course manual.	PowerPoint

## **Lesson plan: Section 18 – Ergonomics**

Aims: To provide a basic understanding of musculoskeletal injuries, ergonomics and the role of the ergonomist.

Objectives:

- Provide students with an overview of ergonomics

Time (mins)	Activity	Resources
60	Lecture by tutor explaining the concepts described in the course manual. Involve students in the assessment of a DSE workstation or a lifting exercise.	PowerPoint