



ERGONOMIC RISK ASSESSOR COURSE

IRCA

CAPE TOWN

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COURSE CONTENT

1. Module 1 - What is Ergonomics

- ♣ Ergonomics and the "ergonomics system".
- ♣ Understand the components of the "ergonomics system".
- ♣ Understand the interactions between these components within the context of the work system.
- ♣ Be able to apply a systems approach to ergonomic risk analysis.

2. Module 2 - Basic Anatomy & Biomechanics

- ♣ Provide a basic understanding of the musculoskeletal structure of the human body.
- ♣ Provide an understanding of how bones and muscles equal levers and how these musculoskeletal levers contribute to human capabilities and limitations.

3. Module 3 - Basic Anthropometry

- ♣ Recognise the anthropometrical differences between individuals.
- ♣ Use anthropometric measurements for the development of specific workstation requirements.
- ♣ Assess the suitability of engineering drawings, mock-ups, individuals.
- ♣ Use anthropometric measurements for the development of specific workstation requirements.
- ♣ Assess the suitability of engineering drawings, mock-ups, manufactured products and workstation design according to anthropometric principles.

4. Module 4 - Basic Physiology & Work Capacity

- ♣ Understand the limitations posed by the energy systems.

5. Module 5 - Ergonomic Risk Factors & Basic Workspace Design

- ♣ Identify risk factors that result in or contribute to operator injury and error.
- ♣ Identify design requirements for workspaces.
- ♣ Identify options to consider for controlling and preventing operator injury and error.

6. Module 6 - Ergonomics and the Physical Environment

- ♣ Identify environments that require ergonomic intervention due to thermal imbalances
- ♣ Identify environments that require ergonomic intervention due to inappropriate lighting
- ♣ Identify environments that require ergonomic intervention due to inappropriate acoustic design

Module 7 - Ergonomics and Work Organisation

- ♣ Understand the social subsystem of human-machine systems and that work organisation and job design are essential in achieving optimal levels of productivity

8. Bonus Module – Human Information Processing and Human Error

b. Session 2 – Risk Assessment Methodology

1. Module 1 - What are hazards

- ♣ Recognising the different kinds of hazards (hazard classification)

2. Module 2 - What are risks

- ♣ Understanding consequence/severity in an ergonomic context
- ♣ Understanding probability/likelihood in an ergonomic context
- ♣ Assignment

3. Module 3 - Conducting a risk assessment

- ♣ Different risk assessment types - qualitative / semi-quantitative / quantitative

4. Module 4 – Managing/controlling risk

- ♣ Hierarchy of control measures in an ergonomic context

c. Session 3 – Consolidation

1. Module 1 - Preparing to conduct an ergonomic risk assessment

- ♣ Identifying core activities
- ♣ Prioritising core activities
- ♣ Task analysis

2. Module 2 - Conducting an ergonomic risk assessment

- ♣ Identifying ergonomic hazards
- ♣ Quantifying ergonomic risk
- ♣ Identifying appropriate control measures

3. Bonus – Performance Influencing Factors

d. Session 4 – Legal Compliance

1. Module 1 - Compliance with the Ergonomics Regulations

- ♣ Discuss the intent of the Regulations
- ♣ Discuss potential sources of exposure to ergonomic risks with respect to the Regulations
- ♣ Discuss the nature of ergonomic risks
- ♣ Discuss the potential risk to health associated with ergonomic risks
- ♣ Discuss types of control measures that are in place to prevent exposure to ergonomic risks
- ♣ Discuss a procedure for reporting ergonomic risks
- ♣ Discuss the precautions to be taken by an employee to protect against ergonomic risks; and
- ♣ Discuss the relevance of the medical surveillance program.

DURATION
3 days