



Center for Industrial Studies, Safety, and Environment
(CEISA)

Report on Fundamentals of Occupational Health and Safety
Delivered to the Museum of Natural History - UEM

ORGANIZING INSTITUTION,
Center for Industrial Studies, Safety, and Environment (CEISA)

PARTNER INSTITUTION:
Developing World Outreach Initiative (DWOI)

TRAINING FACILITATORS:

Celso Tivane

Afonso Marrengula

Maputo, May 2025

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Introduction

The Center for Industrial Studies, Safety, and Environment (CEISA) conducted a short-term course on *Fundamentals of Occupational Health and Safety* for employees of the Museum of Natural History from April 22 to 24, 2025, with approximately 29 participants.

The primary goal of the course was to equip participants with Occupational Health and Safety techniques, enabling them to gain knowledge and skills to identify hazards in the workplace, define control methods, and eliminate occupational risks. The approach included interactive discussions and case studies on the following topics:

- Introduction to Occupational Health and Safety;
- Introduction to Emergency Plans;
- Legal Aspects: Standards and Regulatory Guidelines;
- Hazard Recognition: Overview of Physical and Chemical Risks;
- Hazard Recognition: Overview of Ergonomic, Biological, and Mechanical Risks;
- Workplace Inspection Overview;
- Step-by-Step Hazard Identification;
- Safety Risks;
- Electrical Safety;
- Machinery Hazards and Protection;
- Working at Heights;
- Laboratory Safety;
- Fires and Explosions;
- Case Study: Construction and Working at Heights;
- Health Risks – Assessment, Prevention, and Control;
- Chemical Hazards and Exposure Monitoring;;
- Physical Hazards – Radiation;
- Heat Stress;
- Physical Hazards – Noise;
- Health Risks – Assessment, Prevention, and Control;
- Ergonomic Hazards;
- Psychosocial Hazards;
- Engineering Controls;
- Personal Protective Equipment (PPE);
- Administrative Controls;
- Respiratory Protection;
- Implementation of an Occupational Health and Safety Management Program;
- Overview – Policies, Importance and Responsibilities, Planning, and Performance;
- Measurement of Occupational Health and Safety Stressors;
- Risk Assessment and Corrective Actions;
- Training Techniques and Strategies;
- Incident Reporting and Investigation;

The training was conducted over three business days, totalling 9 hours of instruction. The entire course syllabus were covered.

Target Audience

The training was delivered in person, in Portuguese, and held full-time over three consecutive days. It covered the foundational program for establishing an Occupational Health and Safety (OHS) management system. The workshop included 29 participants.

The workshop helped participants learn how to identify and assess occupational risks, with a focus on a university environment, using specific examples from UEM (Eduardo Mondlane University). It provided a framework for a sustainable OHS management system, emphasizing policy, planning, organization (including roles, responsibilities, and accountability), risk assessment and management, awareness and training, auditing and inspection, and management analysis.

A variety of teaching techniques were used, including lectures, small group discussions, and practical exercises for applying knowledge and skills. These exercises included opportunities outside the classroom to identify and assess risks. Participants also conducted a walkthrough of their work areas to identify various hazards, analyze risks, and recommend control measures.

Training Period and Location

The *Occupational Health and Safety Fundamentals* training took place from April 22 to April 24, 2025, in the Amphitheater of the Museum of Natural History.

Training Indicators

The images below show moments from the training, with facilitators presenting the topics outlined in the training program.



Figure 1: Celso Tivane presenting the topic on Introduction to Occupational Health and Safety



Figure 2: "Celso Tivane and Dr. Afonso Marrengula presenting the topic on Emergency Response



Figure 3: Celso Tivane presenting the topic on Accident Investigation



Figure 4: Celso Tivane presenting the topic on Confined Spaces



Figura 5: interaction with the trainees on the topic of Occupational Risk Agents

Strengths and Weaknesses of the Training

Strengths

To identify the positive aspects of the training from the participants' perspective and to understand what stood out to them, trainees were asked about the strengths of the course. The participants highlighted the following strengths:

- Punctuality and experience of the trainers in the field of Occupational Health and Safety (OHS);
- The topic related to Emergency Response;
- The course content was relevant to the current context;
- The way the topics were explained was excellent;
- Practical exercises helped reinforce the theoretical knowledge and explanations;
- The trainers' engaging approach and their ability to create a positive learning environment, as well as the importance of the topics discussed;
- Topics related to types of occupational risk agents, introduction to health and safety inspections, safety signage, and working in confined spaces;
- The debate on the difference between risk and hazard;
- Well-organized topics focused on real-life situations faced by employees at the Museum of Natural History;
- The trainers conducted the course with a high level of professionalism.

Weaknesses

To improve the delivery of future courses in *Occupational Health and Safety Fundamentals*, trainees were asked to provide feedback on the weaknesses of the training. The participants noted the following points:

- Lack of emergency signage;
- Merely listening during lectures is not sufficient for effective learning; more support is needed;
- Too much content in too little time;
- Not enough practical sessions—there should be a balance between theory and hands-on activities for better understanding;
- Fire prevention and response, as well as safety signage, were under-addressed;
- Insufficient practical application overall.

Trainees' Suggestions Regarding the Training

Participants were also asked to suggest improvements to the way the training was conducted. They proposed:

- Better organization and availability of training materials;
- Extending the course duration to at least two weeks;
- More practical implementation to understand how to perform inspections in actual facilities;
- The minimum training duration should be two weeks.

Other Trainings Participants Would Like to Attend

When asked whether they would like to attend other training sessions provided by CEISA-UEM, and which ones, participants responded with the following suggestions:

- Environmental Management;
- Specialization in Accident and Occupational Illness Investigation;
- First Aid;
- On-site practical training;
- Specialization in Accident Investigation;
- Public Health.

Participants' Comments and Suggestions

To give participants space to express their opinions on the *Occupational Health and Safety Fundamentals* training, they were invited to share final comments or suggestions. Overall, participants stated:

- Appreciation to the institution for the opportunity to participate in this training, which has enhanced their qualifications as employees of the UEM Museum of Natural History;
- CEISA-UEM should continue offering this type of training across UEM's organizational units;
- Satisfaction with having completed the *Occupational Health and Safety Fundamentals* course;
- The need to increase the number of training hours;
- The course was productive and worthwhile;
- Practical OHS applications should be implemented specifically in the Museum of Natural History.

Certificates

Certificates were issued to participants who completed the *Occupational Health and Safety Fundamentals* course, which lasted 9 hours.

Constraints

The preparation and delivery of the training encountered the following constraints:

- Unclear information regarding the number of trainees initially confirmed;
- Overcrowding in the training room;
- Technical issues with the projector cable.

Acknowledgments

We would like to express our sincere gratitude to Developing world Outreach Initiative (DWOI) for their generous support and sponsorship of the Occupational Health and Safety (OHS) training program. Your commitment to promoting workplace safety and well-being has played a crucial role in making this training a success. Through your support, participants have gained valuable knowledge and skills that will contribute to a safer and healthier working environment.

Appendices

Photos of the different events during the training



Attendance sheet



MUSEU DE HISTÓRIA NATURAL
UNIVERSIDADE EDUARDO MONDLANE
MAPUTO . MOÇAMBIQUE



Lista dos Funcionários do Museu de História Natural

Nº		22	23	24
01	Almeida Tomas Guissamulo			
02	Adolfo Salvador Manjate			
03	Ana Jacinto Cossa	Ana Cossa	Ana Cossa	Ana Cossa
04	Anacleto João Cossa			
05	Ana Deolinda Sebastião	AD	AD	AD
06	Angelina Alberto Mole			
07	Alzira Samuel Manhique		AS	
08	Anselmo Chadreque Bilanhane			
09	Alberto Mário Peto			
10	Ángelo Afredo Tivane			
11	Arsénio Gustavo Sevene	AS	AS	AS
12	Boavida Mate	BM	BM	BM
13	Carlos Manuel Bento	CM	CM	CM
14	Carla Inês Pequeno	CI		
15	Carlos João Gove	CG	CG	CG
16	Claúdia João Langa			
17	Daniel Afonso Marquesse	DA	DA	DA
18	Érica Helena Tovela			
19	Ermelinda Abílio Nhandumbo		EN	EN
20	Elisabete Jorge Chirinda	EJ	EJ	EJ
21	Eugénio Alfredo Cuamba			
22	Euclides da Conceição Afonso			
23	Fernando Arão Guiyala	FG	FG	FG
24	Felismina Ernesto Numaio	FN	FN	FN
25	Horácio Alferes Sozinho	HA	HA	HA
26	Humberto Júlio Agostinho	HJ	HJ	HJ
27	Ismael Cassamo Januário			
28	Jorge Oliveira Guiloviça	JO	JO	
29	Lucília da Conceição Chuquela			
30	Lurdes Armando Muianga	LM	LM	LM
31	Manuel David Manhique	MD	MD	MD
32	Marcela Cecilia Chelene	MC	MC	MC
33	Miguel Vasco Sambo			

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22 23 24

34	Miguel Milalene Manhique			
35	Maria Luísa Da Costa	Maria	Maria	Maria
36	Nelson António Rumbane			
37	Natércia José pene	Natércia		Natércia
38	Raimundo Rosinho Nhabomba			
39	Rodrigues Januário C. Nhamussua	Rodrigues	Rodrigues	Rodrigues
40	Renaldo Constâncio Simango			
41	Suzana General	Suzana		Suzana
42	Santos Da Silva Almirante			
43	Valente Amâncio Pinto			

Elaborado Por: Santos Almirante

44	Celeste Alago	22 Celeste	23 Celeste	24 Celeste
45	Elúdio Lourenço Costa	22 Elúdio	23 Elúdio	24 Elúdio
46	Brenilton Macicome	22 Brenilton	23 Brenilton	24 Brenilton
47	Daniilo Afonso Nhamumbo	22 Daniilo	23 Daniilo	24 Daniilo
48	Sheila António Mungongo	22 Sheila	23 Sheila	24 Sheila
49	Felisa M. Nhamoio			
50	Zaira Valgi Macheve	22 Zaira	23 Zaira	24 Zaira
51	Felisa M. Nhamoio			
52	Sara M. Gomes-Jaintila	22 Sara	23 Sara	24 Sara

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