

Standards Module II: ISO 45001

I. Overview

This educational content on ISO 45001 was developed under award 70NANB16H268 from the National Institute of Standards and Technology to support instructors in incorporating national and international standards in course curricula. The statements, findings, conclusions, and recommendations are those of the author(s) and do not necessarily reflect the views of the National Institute of Standards and Technology or the U.S. Department of Commerce.

ISO 45001 is an internationally recognized standard for occupational health and safety (OHS) management that can enable organizations to better manage their respective OHS hazards and risks, and leverage opportunities for continual improvement of their OHS performance.

The module includes an overview of ISO 45001 as well as related educational content and module assessment tools. The educational content is comprised of eight sets of teaching materials for the clauses of ISO 45001. Each set includes a slide deck with teaching notes, supplemental resources, links to online tools and materials where applicable, example discussion questions, assignments and/or exercises to provide a means for students to apply their knowledge and demonstrate their understanding of the material.

Module Intended Learning Outcomes (ILO's)

1. Identify and explain the scope and applicability of ISO 45001 (UG, G)
2. Explain the benefits of ISO 45001 (UG, G)
3. Identify the clauses of ISO 45001 (UG,G)
4. Explain and apply key requirements associated with the clauses of ISO 45001 (G)

[G- Graduate Level; UG – Undergraduate Level]

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II. Module Summary – ISO 45001 Framework and Benefits

ISO 45001 specifies requirements for occupational health and safety management systems (OHSMS). An OHSMS is a systematic approach for managing an organization's occupational health and safety (OHS) hazards and associated risk as well as meeting an organization's OHS objectives. ISO 45001 provides a framework for:

- Prevention of injuries/illnesses;
- Creation of a safe & healthy workplace with a positive work culture;
- Use of preventative and protective measures to minimize risk; and
- Fulfillment of legal and other requirements pertaining to health & safety.

III. Educational Content

The Introduction/Overview materials address clauses 1-3 in ISO 45001, and subsequent materials cover clauses 4-10 individually. Definitions provided in clause 3 are incorporated into the educational content for the clauses in which the terms are used, as appropriate.

Educational Content Outline

- Module 1 Overview: Clauses 1-3 and an overview of clauses 4-10 in the standard
- Module 1 Clause 4: Context of the Organization
- Module 1 Clause 5: Leadership
- Module 1 Clause 6: Planning
- Module 1 Clause 7: Support
- Module 1 Clause 8: Operation
- Module 1 Clause 9: Performance Evaluation
- Module 1 Clause 10: Improvement

IV. Resources

General readings and links to resources applicable for the module are provided below.

General Readings:

Greenwood, L. (2017). The Efficacy of Environmental Management Systems—ISO 14001: Effects of Motivations, Maturity, and Size on Environmental and Business Management Outcomes in US Firms (Doctoral dissertation, State University of New York College of Environmental Science and Forestry).

ISO. (2017). Occupational health and safety management systems—Requirements with guidance for use (ISO/DIS Standard No. 45001.2).

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ISO/IEC (2017). Directives, Part 1, Consolidated ISO supplement – Procedures specific to ISO. Annex SL

Meadows, D. H., & Wright, D. (2008). Thinking in systems: A primer: chelsea green publishing.
er. Chapter 1, The Basics.

Links:

ISO 45001 Occupational Health and Safety: <https://www.iso.org/obp/ui/#iso:pub:PUB100427>

ISO Directives and Policies: <https://www.iso.org/directives-and-policies.html>

ISO Management Systems Page: <https://www.iso.org/management-system-standards.html>

ISO Online Browsing Platform: <https://www.iso.org/obp/ui/#iso:std:iso:45001:ed-1:v1:en>

Fundamentals of Standards and Standardization: https://www.iso.org/sites/materials/teaching-materials/education_materials-higher-edu/educational_materials-detail-emfc6f.html?emid=20

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