

# ISO 22000 Food Safety Management Systems Professional

**Syllabus**



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**PEOPLECERT**

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## 1. Introduction

**ISO 22000: Food Safety Management System (FSMS)** is the recognized International standard, which defines the requirements for a food safety management system to enable an organization to develop and implement a policy, and objectives which take into account legal requirements and other requirements to ensure food safety along the food chain, up to the point of final consumption. This International Standard integrates the principles of the Hazard Analysis and Critical Control Point (HACCP) system and application steps developed by the Codex Alimentarius Commission. By means of auditable requirements, it combines the HACCP plan with prerequisite program (PRPs).

**PEOPLECERT's ISO 22000 Professional** level qualification covers the advanced **knowledge** required for a candidate to prove a solid understanding of the content and requirements of the international standard, **ISO 22000: Food Safety Management System**. In short, the Professional certification covers the knowledge required to gain an **understanding** of the **content** and **requirements** of the international standard ISO 22000: Food Safety Management System as well as the **skills** required to successfully apply and implement all the practical content of the standards, for anyone involved in any Food Safety Management System implementation or improvement activity. **PEOPLECERT's ISO 22000 Professional** level qualification is also the first step in achieving the **Auditor** or the **Consultant** level of certification, since after successfully passing the Professional level of this qualification an additional level of certification can be achieved depending on which supplemental certification is achieved (Peoplecert's ISO 19011 or Peoplecert's ISO 10019 plus a Personal Attributes Assessment Test).

It is **recommended** that candidates attempting this level of the certification possess fundamental knowledge of food safety management systems principles and processes. It is **mandatory** that candidates at this level of certification attend associated accredited training course and hold Peoplecert's ISO 22000 Foundation certificate.

## 2. Target Group/Audience

This qualification is the **second level (higher)** of the ISO 22000 certification scheme provided by Peoplecert, and is aimed at anyone working within a food service provider organization (internally or externally) who may require to have and demonstrate a solid **knowledge** and **understanding** of the **ISO 22000 standard** and its **practical content**. The certification can also cater for candidates seeking certification at a highly practical and not only theoretical level in regards to Food Safety Management System implementation activities based on ISO 22000 and or candidates who need to prove not only their understanding of the subject but also their ability to **practically apply** ISO 22000 within their organization.

This qualification will provide the **Professional** level of knowledge to its holders and will certify that they have a solid understanding of the standard and its practical content, catering for the **advanced** level of knowledge for:

- (a) external or internal auditors
- (b) external consultants or managers
- (c) staff responsible for managing implementation of the standard in a service provider organization

This certification will prove that a candidate has sufficient understanding of ISO 22000 and its

**application** in order to be able to analyze and apply their knowledge and competencies onto a wide range of activities that would support organizations in achieving and/or retaining ISO 22000 certification. A lower level of knowledge is covered in the previous level (Foundation) of the ISO 22000 certification scheme provided by PEOPLECERT.

### 3. Learning Objectives

As this is the **Professional** level course, candidates will be introduced to the advanced principles and elements of the ISO 22000 standard for Food Safety Management System, and more specifically:

- **ISO 22000:2005:** the standard which defines the requirements for a Food Safety Management System.
- **ISO 22004:2005:** provides general guidelines on principles, System and supporting techniques.

**Holders** of PEOPLECERT's ISO 22000: Food Safety Management Systems **Professional** Certification will be able to demonstrate their knowledge, ability, competence and understanding in:

- Definitions and principles of quality management in accordance with ISO 22000.
- Objectives and requirements in each section of the specification
- Scope, aims and use of the ISO 22000 Specification and Code of Practice.
- Processes and objectives of ISO 22000 and Food Safety management (FSM).
- Fundamental requirements for a food safety management system (FSMS).
- Eligibility and scoping statement requirements.
- Requirements of the food safety management system and the Plan, Do, Check, Act cycle.
- How assessments, reviews and internal audits of Food Safety Management Systems against the requirements of the standard are used.
- Application of the requirements in an organization

### 4. Examination

The ISO 22000 Professional Certification Exam is designed to validate a candidate's knowledge of the contents and requirements of the standard and will allow for further development along the personnel certification path. The **Professional** exam focuses on the following **four (4)** categories in the cognitive domain of **Bloom's taxonomy**<sup>1</sup>:

- **Knowledge**
- **Comprehension**
- **Application**
- **Analyze**

#### 4.1 Entry Criteria/Training Requirements

There are **specific** entry criteria for candidates of the ISO 22000 **Professional** level examination. It is **mandatory** that candidates at this level of certification attend formal and accredited training on the subject with a minimum duration of **24 hours** and that they hold a **PEOPLECERT's ISO 22000 Foundation** level certificate. A detailed breakdown of these training hours, per topic area is provided in the syllabus section.

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<sup>1</sup> The Bloom's taxonomy defines **six (6)** levels of learning in the **cognitive** domain (know, comprehend, apply, analyze, evaluate, create), which are both sequential and cumulative and move from the simple to the complex. In order to achieve the 6th level of learning, it must be ensured that the previous five levels have been mastered.

## 4.2 Assessment Approach

The assessment approach used focuses on the basic categories of Knowledge, Comprehension, Application and Analysis.

**Knowledge** is defined as recalling previously learned material, from facts to theories and represents the lowest level of learning outcomes in the cognitive domain. Such learning outcomes are turned in assessment objectives that include knowing and recalling such as:

- Common and/or basic terms, definitions, concepts and principles
- Specific compliance requirements and facts
- Processes, procedures and assessment methods

**Comprehension** is the lowest level of understanding and entails the ability to grasp the meaning of the material taught, including some sort of interpretation, translation or estimation during the process. Such learning outcomes and in turn assessment objectives go beyond simply recalling information and may include:

- Understanding facts, concepts and principles
- Interpreting material (i.e. charts, graphs, text)
- Justifying a Process, procedure and assessment method

**Application** is a level where candidates need to combine their knowledge and understanding/comprehension on a subject and be able to create an abstraction. More specifically, candidates are expected to apply their knowledge and understanding so that abstractions, general principles, or methods to specific concrete situations are made. Such learning outcomes and in turn assessment objectives go beyond simply recalling information and may include:

- use ideas, principles and theories in new, particular and concrete situations
- being able to choose appropriate procedures, apply principles, use a specific approach or identify the selection of options at a given situation
- apply what is learnt into a new situation
- apply rules, methods, concepts, principles, laws, and theories
- Learning outcomes in this area require a higher level of understanding than those under comprehension

**Analysis** is the level that goes beyond application as the candidates need to be able to break down information into its component parts so that its organizational structure may be understood and to make inferences. More specifically, candidates need to break down, discriminate, diagram, detect, differentiate and illustrate which are all important tasks at this level of learning and include the previous levels of knowing, comprehending and applying. Such learning outcomes and in turn assessment objectives go beyond knowing, understanding and applying and may include:

- see patterns that they can use to analyze a problem
- develop divergent conclusions by identifying motives or causes
- make inferences
- find evidence to support generalizations
- identify parts, analyze the relationship between parts, and recognize the organizational principles involved

Learning outcomes here represent a higher intellectual level than comprehension and application because they require an understanding of both the content and the structural form of the material. The assessment incorporates the above learning outcomes as it uses assessment objectives that cater for the above cognitive domain categories.

**4.3 Examination Format**

The following table details the examination format:

<b>Delivery</b>	<b>Computer (web) or Paper based</b>
<b>Type</b>	<b>40 Multiple choice questions</b> <i>Single answer, one of four possible answers</i> <i>Each question is awarded one (1) mark</i>
<b>Duration</b>	<b>1 ½ hours (90 minutes)</b> <i>For non-native speakers or candidates with a disability, an additional 30 minutes of extra time is allowed.</i>
<b>Pass Mark</b>	<b>65% (26/40)</b>
<b>Invigilator / Supervisor / Proctor</b>	<b>Yes</b> <i>Physical or Web proctoring</i>
<b>Open Book</b>	<b>No</b> <i>No materials are allowed in the examination room</i>
<b>Prerequisites</b>	<b>Formal Training (24 hours)</b> <b>Peoplecert’s ISO 22000 Foundation level certificate</b>
<b>Distinction</b>	<b>N/A</b>
<b>Certification validity</b>	<b>N/A</b>

The tests are derived from a regularly updated question test bank (QTB) based on the test specification detailed below. Questions are used interchangeably among test sets. The overall difficulty level of each test is the same with any other test. A candidate is never assigned the same test in the case of multiple examination attempts.

**4.4 Detailed Syllabus**

The syllabus contains references to the established ISO 22000 standard and is structured into sections relating to **major subject headings** and numbered with a single digit section number. The **recommended minimum training hours, per Syllabus Category** are also provided in this table.

Note that for the Professional level of certification all questions pertaining to the Knowledge set are **knowledge, understanding, application** and **analysis** items (levels 1 through 4) with emphasis on the two higher levels.

At the end of the training session, allow **30 minutes** for the candidates to familiarize themselves with the exam process and the sample questions. An additional **hour** could be provided for the sample test and/or answering the sample test for better preparation of the exam.

<b>Category</b>	<b>Ref</b>	<b>Knowledge Set</b>
<b>FSMS-1.1 Introduction, Terms and Definitions</b>	FSMS-1.1.1	Introduction
	FSMS-1.1.2	Terms & Definitions
<b>Proposed Training Time: 120 minutes</b>		
<b>FSMS-1.2 Food Safety Management System</b>	FSMS-1.2.1	Standard General Knowledge
	FSMS-1.2.2	Documentation Requirements
<b>Proposed Training Time: 180 minutes</b>		
<b>FSMS-1.3 Management Responsibility and Resources</b>	FSMS-1.3.1	Management Responsibility

Category	Ref	Knowledge Set
	FSMS-1.3.2	Responsibility and authority
	FSMS-1.3.3	Communication
	FSMS-1.3.4	Emergency preparedness and response
	FSMS-1.3.5	Management Review
	FSMS-1.3.6	Resource management
<b>Proposed Training Time: 210 minutes</b>		
<b>FSMS-1.4 Planning and realization of safe products</b>	FSMS-1.4.1	Prerequisite programs
	FSMS-1.4.2	Preliminary steps to enable hazard analysis
	FSMS-1.4.3	Hazard Analysis
	FSMS-1.4.4	Operational Prerequisite programs
	FSMS-1.4.5	HACCP Plan
	FSMS-1.4.6	Verification Planning
	FSMS-1.4.7	Traceability system
	FSMS-1.4.8	Control of nonconformity
	FSMS-1.4.9	Handling of potentially unsafe product
	FSMS-1.4.10	Withdrawals
<b>Proposed Training Time: 240 minutes</b>		
<b>FSMS-1.5 Standard verification, validation, implementation and improvement</b>	FSMS-1.5.1	Validation, verification and improvement of the FSMS
	FSMS-1.5.2	Standard application
	FSMS-1.5.3	Auditing
<b>Proposed Training Time: 180 minutes</b>		
<b>Exam preparation and sample test/sample questions: 30 minutes</b>		

#### 4.5 Test Specification

The examination will consist of **five (5)** sections with the following structure:

Category	Description	Exam (%)
1	<b>FSMS-1.1 Introduction, Terms and Definitions</b>	<b>22.5%</b>
2	<b>FSMS-1.2 Food Safety Management System</b>	<b>10.0%</b>
3	<b>FSMS-1.3 Management Responsibility</b>	<b>20.0%</b>
4	<b>FSMS-1.4 Planning and realization of safe products</b>	<b>32.5%</b>
5	<b>FSMS-1.5 Standard verification, validation, implementation and improvement</b>	<b>15.0%</b>
	<b>Total</b>	<b>100.0%</b>

## 5. Recommended Reading

- (i) ISO copy of the standard for this certification/examination  
ISO 22000:2005 Food Safety Management System - Requirements. Switzerland, ISO, 2005.
- (ii) ISO 22004:2005. Food Safety Management System – Guidance on the application of ISO 22000:2005. Switzerland, ISO, 2005.
- (iii) ISO 19011, Guidelines for quality and/or environmental management System auditing. Switzerland, ISO, 2011.



## 6. Glossary

<b>Accreditation Body</b>	<b>Assessment organizations that provide certification, testing, and inspection and calibration services. Accreditation by an accreditation body demonstrated competence, impartiality and performance capability of an organization that does audits. Ensures a consistent approach.</b>
<b>Accredited Certification Body</b>	Organization that performs certification audits, commonly referred to as 'professional audit companies' and which has been accredited by an accreditation body.
<b>Availability</b>	Ability of a component or service to perform its required function at a stated instant or over a stated period of time.
<b>Baseline</b>	Snapshot of the state of a service or individual configuration items at a point in time.
<b>Change record</b>	Record containing details of which configuration items are affected and how they are affected by an authorized change.
<b>Code of Practice</b>	A standard that recommends 'good, accepted practice as followed by competent practitioners'.
<b>Compliance</b>	Meeting the requirements in ISO/IEC 9001 (or another national or international standard), as assessed by an internal audit or an organization that is not an accredited certification body or qualified to carry out ISO/IEC 9001 certification audits. Compliance includes 'Self-assessment Audits'.
<b>Document</b>	Information and its supporting medium.
<b>Incident</b>	Any event which is not part of the standard operation of a service and which causes or may cause an interruption to, or a reduction in, the quality of that service.
<b>Problem</b>	Unknown underlying cause of one or more incidents.
<b>Record</b>	Document stating results achieved or providing evidence of activities performed.
<b>Release</b>	Collection of new and/or changed configuration items which are tested and introduced into the live environment together.
<b>Request for change</b>	Form or screen used to record details of a request for a change to any configuration item within a service or infrastructure.
<b>Service/product provider</b>	The organization aiming to achieve certification according to ISO/IEC 9001.
<b>Specification</b>	A standard that sets out 'detailed requirements', using the prescriptive 'shall', to be satisfied by a product, material process or system.