



### إسم البرنامج التأهيلي

البرنامج التأهيلي المعتمد للمهندسين الكيماويين في مجال أنظمة إدارة الجودة

Qualification and Certification Program for Chemical Engineers in Quality Management Systems

#### هدف البرنامج

برنامج لتأهيل المشتركين وإكسابهم مهارات في مجال ضبط وقياس الجودة يتم تدريبهم عليها من قبل مهندسين ذوو خبرة عملية كبيرة في مجال مواصفات الآيزو المختلفة.

تشمل الفئة المستهدفة لهذا البرنامج المهندسين المهتمين بالمواصفات الدولية القياسية (الآيزو) والراغبين بالحصول على المهارات اللازمة لتأهيلهم لسوق العمل في مجال الجودة سواءاً في المصانع أو المختبرات أو السركات أو المنظمات وغيرها من المؤسسات الخدمية أو التي تقدم منتوجات للعملاء وتشمل الفئة المستهدفة أيضاً الخريجين الجدد في مجال الكيمياء والكيمياء الصناعية والفيزياء والأحياء والصيدلة والتغذية والبيئة والزراعة وجميع التخصصات الهندسية وكذلك الراغبين في العمل في مجال المختبرات في المصانع وفي الجهات الرقابية والمختبرات الحكومية وجميع المؤسسات ومدراء ومشرفي الأقسام والعاملين في إدارة المختبرات والمعامل وجميع المشؤولين عن المؤسيق نظام إدارة الجودة ومدراء الجودة في المنشآت المختلفة والمهتمين بنشاط إعتماد المختبرات سواءاً مختبرات المياه والأغذية والمواد الإنشائية والدهانات والأسمدة والمبيدات والأدوية وكل فروع والمواد الإنشائية والدهانات المكانية فحص منتوجات المصانع في مختبراتهم دون الحاجة للجوء إلى مختبرات خارجية

يشمل البرنامج 9 محاور رئيسية تغطي الجوانب النظرية والمعرفية والعملية المرتبطة بالموضوع ويتقدم المشتركين لإمتحان في نهاية البرنامج يحصلون في حال إجتيازه على شهادة تأهيل تمكنهم من العمل في هذا المجال.

الفئات المست*ه*دفة

#### المحور الأول

# QUALITY

## 96 ساعة تدريبية



#### Awareness of [ISO 9001:2015] Quality Management System

- The Need for and Benefits of a QMS
- Management Systems Standards Based on Annex SL
- ISO 9001:2015
- ISO 9000 Series of Standards
- The Process Approach
- Structure of ISO 9001
- Continual Improvement
- Risk-Based Thinking
- Quality Management Principles
- ISO 9001:2015: Overview and Clauses 4 6
  - o The Structure of ISO 9001
  - o Scope
  - o Application
  - Understanding the Organization and its Context
  - o Understanding the Needs and Expectations of Interested Parties
  - Determining the Scope of the QMS
  - Leadership and Commitment





- o Customer Focus
- o Quality Policy
- o Quality Objectives
- Organizational Roles
- o Responsibilities and Authorities
- Actions to Address Risks and Opportunities
- o Quality Objectives and Planning to Achieve Them
- Pressures on an Organization
- Risks and Opportunities
- ISO 9001:2015; Clause 7
  - o Resources
  - Competence
  - o Awareness
  - Communication
  - o Documented Information
- Organizational Knowledge
- ISO 9001:2015: Clause 8
  - Operational Planning and Control
  - Determination of Requirement for Products and Services
  - Design and Development of Products and Services
  - Control of Externally Provided Products and Services
  - o Production and Service Provision
  - Quality Management Systems Questionnaire
- ISO 9001:2015: Clauses 9 10
  - o Monitoring, Measurement, Analysis and Evaluation
  - o Internal Audit
  - Management Review
  - o Nonconformity and Corrective Action
  - Continual Improvement

#### **OHSAS 18001 Occupational Health and Safety Management Systems**

المحور الثانى

- Introduction to Health and Safety Management
- Accidents and Risk Management
- Introduction to OHS Management Systems [cause and cost of accident and continual improvement, overview of OHS management system and OHSAS 18001 and how it relates to other management systems]
- Requirements of OHSAS 18001 Occupational Health and Safety Management Systems Specifications, Definitions, Types of Hazards and Controls
- Workshop 1: Requirements of OHSAS 18001
- Workshop 2: Hazard Identification, Risk Assessment and Risk Control

#### ISO 14001 - Environmental Management Systems

المحور الثالث

- Introduction to the ISO 14000 Series of Management System Standards
  - o The Need for and Benefits of an Environmental Management System
  - o Management Systems Standards Based on Annex SL
  - o ISO 14001:2015
  - o ISO 14000 Series of Standards
  - The Process Approach
  - Continual Improvement Based on the PDCA Cycle
- ISO 14001: 2015: Overview and clauses 4 6
  - $\circ$  The Structure of ISO 9001
  - o Scope





- o Application
- Understanding the Organization and its Context
- o Understanding the Needs and Expectations of Interested Parties
- Determining the Scope of the EMS
- o Leadership and Commitment
- o Environmental Policy
- Environmental Objectives
- o Organizational Roles
- o Responsibilities and Authorities
- Actions to Address Risks and Opportunities
- Environmental Objectives and Planning to Achieve Them
- Pressures on an Organization
- Risks and Opportunities
- ISO 14001: 2015; Clause 7Organizational Knowledge
- ISO 14001: 2015: Clause 8
  - Operational Planning and Control
- ISO 14001: 2015: Clauses 9 10
  - o Monitoring, Measurement, Analysis and Evaluation
  - o Internal Audit
  - Management Review
  - o Nonconformity and Corrective Action
  - o Continual Improvement

#### ISO 22000 Management Systems

المحور الرابع

ISO 22000 is a management system designed to enable organizations to control food safety hazards along the food chain in order to ensure that food is safe at the time of consumption.

- Introduction to ISO 22000
- Benefits of ISO 22000
- Prerequisite Programs [GMP]
- An Introduction to the Seven Principles of HACCP
- Preliminary Steps to HACCP
- Conducting a Hazard Analysis
- Preventative Measures
- Critical Control Points
  - o CCPs Defined
  - o Selecting CCPs Requires Informed Judgment
  - o CCPs Will Differ for Each Organization
  - The Codex Decision Tree
- Critical Limits
  - o Critical Limits Defined
  - Critical Limits are Different from Target Levels or Tolerances
  - Examples
- Monitoring
  - o Other Benefits of Monitoring
  - o How to Monitor
- Corrective Actions
  - o Corrective Actions Defined
  - o Elements in a Corrective Action Plan
  - o Corrective Action Procedure Example





- ISO 22000 Requirements
- Intensive ISO 22000 Workshops

#### ISO 50001 Energy Management Systems

المحور الخامس

- Introduction to EnMS
- Terms and Definitions
- ISO 50001: Overview
- ISO 50001 requirements
- ISO 50001 requirements
- Auditing Objectives, Targets and Programs
- Process-Based EnMS
- Continual Improvement
- Energy Management Legislation
- EnMS Audit Questionnaire

#### Internal Audit [ISO 9001 : 2015]

المحور السادس

- Process-Based Quality Management Systems
  - The Need for and Benefits of a QMS
  - o Structure of ISO 9001
  - Quality Policy and Objectives
  - o Documented Information
  - The Process Approach
  - o P-D-C-A Cycle
- Quality Management Systems Questionnaire
- Auditing for Continual Improvement
  - o Continual Improvement
  - o Difficult Issues
  - o Performance Evaluation
  - Implications for Auditors
- Auditing for Continual Improvement
- Audit: Definition and Principles
  - o The Definition of Audit
  - o ISO 19011
  - o ISO 9001 Clause 9.2.
  - Principles of Auditing
  - Role and Responsibilities of Auditors
- Planning and Preparing for the Audit
  - o The Audit Process
  - o Planning the Audit
  - o Preparing for the On-Site Audit
  - o Pre-Audit Contact with the Auditee
  - o Document Review
  - Audit Checklist
- Internal Audit
  - o Part 1: Preparation for the Audit
- On-Site Activities
  - Gathering Information
  - Opening Meeting
  - o Conducting the Audit
  - Questioning Techniques





- Controlling the Audit
- Audit Reporting and Follow-Up
  - o Audit Review Meeting
  - o Audit Findings
  - o Corrective Actions Requests [CARs]
  - o Observations Opportunity for Improvement
  - $\circ \quad \text{ presenting the Findings}$
  - $\circ \quad \text{ Reporting on the Audit} \\$
  - o Corrective Action
  - o Follow-Up and Close Out
- Internal Audit
  - o Case Study
  - o Team Preparation for Formal Presentation
  - o Case Study Presentations
- Auditor Competence and Certification
  - o Personal Characteristics of Auditor
  - o Competence of Auditors
  - o Auditor Certification Scheme