

Acknowledgments

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ISO competency framework for standards development professionals

As every standard professional knows, the integrity and excellence of standards development lies in the competence and expertise of the individuals engaged in the process.

In a move designed to foster a highly skilled and proficient workforce, ISO in collaboration with its members, has created the Competency Framework for Standards Development Professionals. This framework provides valuable insights and tools for those involved in the standards development process to remain adaptable and responsive in an ever-changing world.

This first-of-its-kind initiative aims to support standards professionals worldwide. It offers a structured process designed to develop skills, outlines how to be effective in a given role, and underscores important processes that help build a skilled, engaged and adaptable workforce that drives success and growth.

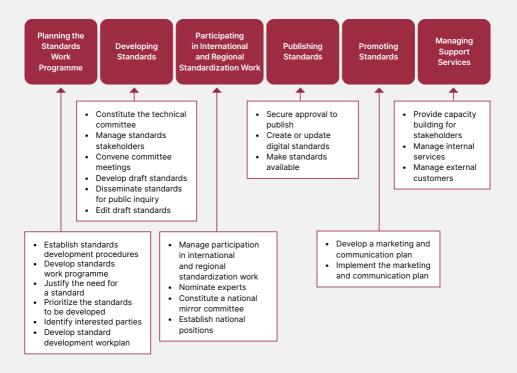
The competency framework

A valid, industry-accepted process was adopted to develop the competency framework, including the use of job task analysis (JTA). The customizable framework is the result of hours of deliberation, discussion and analysis by many practitioners, including subject matter experts, managers, employees and other stakeholders.

What is a competency framework?

A competency framework is a structured and comprehensive outline of the knowledge, skills, abilities, behaviours and attributes required for successful performance in a particular role or profession. It serves as a tool for defining, assessing and developing the competencies needed to achieve individual and organizational objectives.

Duties and tasks - Competency framework for standards development professionals

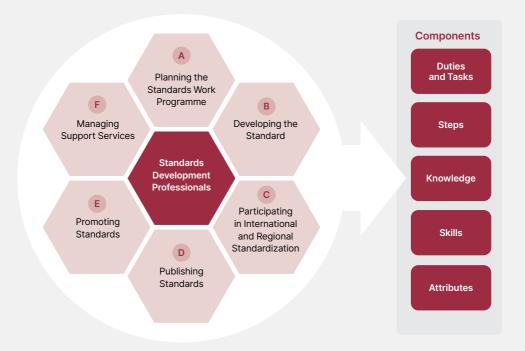


The framework typically consists of a list or matrix of competencies. These are categorized into clusters related to the dimensions of a job or profession. Each category contains specific competencies – observable and measurable indicators of desired performance. Among the skills included are technical expertise, such as programme or project management, soft skills, leadership qualities and problem-solving abilities.

The methodology

To produce the competency framework, the project team followed an industry-accepted process, conducted a JTA, and produced the framework on the back of their findings.

Components of competency framework for standards development professionals



Detailed in full in the final report, the robust process involved:

- Research to identify documents useful for the project. Works evaluated included research into existing competency frameworks and standards development, as well as a review of relevant ISO documents.
- 2. Following a review of all resource documents, a specific timeline of activities was developed along with a project plan.
- Experts were identified and invited from developing economies to participate. Reflecting the variability in national standards bodies within developing economies, a matrix of possibilities was developed.
- A list of characteristics was identified to ensure demographic representation of the participants for the JTA and ISO posted a solicitation of interest.
- A three-day meeting was held to identify the tasks and associated knowledge, skills and attributes (KSAs) needed for standards development to create a draft DACUM JTA chart.
- 6. Results were refined from the first meeting. Outputs included an online survey, which was published and the data collected and analysed.
- 7. Two virtual meetings were then held to review the results of the validation survey. The original DACUM JTA committee members were invited to participate in one of the two meetings held. Participants considered tasks, reviewed comments, and tabulated knowledge ratings and the results of the skill ratings.
- 8. After the final survey meetings, the KSAs were further refined and organized, and the competency framework was developed. This also included the development of an examination blueprint, which may be used to develop a certification programme for standards development experts.

The framework in detail

Competency frameworks are often comprised of tasks, knowledge, skills, abilities, attributes and behaviours. The report defines these as follows:

Tasks refer to specific actions, activities or assignments that need to be performed to accomplish a particular goal or objective. They are typically tangible, discreet and measurable actions that individuals carry out within their roles or responsibilities. To complete tasks, an individual needs to have the associated knowledge, skills and attributes (KSAs).

Knowledge refers to the understanding, facts, information, concepts and expertise that individuals possess in a specific subject or domain. It involves the awareness of principles, theories, procedures and best practices that are relevant to performing tasks and solving problems.

Skills are the practical and learned abilities that individuals develop through training, practice and experience. They involve the application of knowledge and techniques to perform specific tasks effectively. Skills can be technical (e.g. programming, writing) or interpersonal (e.g. communication, leadership).

Abilities are innate or natural talents and aptitudes that individuals possess, which allow them to perform certain tasks or activities. They are inherent capabilities that can include cognitive abilities (e.g. logical reasoning, creativity) or physical abilities (e.g. coordination, dexterity).

Attributes refer to personal qualities, characteristics or traits that individuals possess. These attributes can influence their behaviour, performance and interactions with others and impact how they approach tasks. These can include personality traits, attitudes, values, emotional intelligence or motivational factors. Attributes may include qualities such as adaptability, resilience, creativity, integrity or attention to detail.

Outputs and benefits

The key output from this work is the creation of a globally accepted competency framework, which provides the foundation for a scheme for standards professionals.

A well-designed competency framework provides a common language and a shared understanding of performance expectations within an organization.

Overall, by defining the essential competencies for each job role or level, a competency framework enables an organization to establish clear expectations, can guide recruitment processes, support evaluation, and inform learning and development programmes.

This competency framework may be used to:

- Develop job and role descriptions for hiring purposes
- Recruit and select staff more effectively
- Evaluate employee performance more effectively
- Identify skills and competency gaps

It is also possible that the competency framework will be developed to create a training programme for standards professionals. Similarly, certification schemes may also be developed, resulting in certified standards professionals.

What next?

The tables below are designed to offer a snapshot of the competency framework end results. The report details the findings and methodology in full, offering guidance and in-depth analysis for standards professionals worldwide.

After reading the report, if you'd like further information, please contact us at: capacity@iso.org.

Tables

Duty A: Planning the standards work programme

Task A1: Establish standards development procedures (i.e SOPs) Knowledge: Skills: Attributes/attitudes: Steps: Detail-oriented Manage support Code of ethics Ability to think services systematically Good Globally minded standardization Ensure ethical Analytical skills behaviour practices (GSP) · Basic ability to read in technical Legal framework English committee work in the specific Reading · Identify other country comprehension reference Standards Written development development communication procedures processes, skills Create draft procedures, functions and procedures practices Create a flowchart of steps in Working knowledge of standardization standards development at national, regional and international Validate the levels procedures



Behavioural objectives:

(internal meetings, management approval etc.)

- The standards development professional will present information relevant to stakeholder participation, including rules, roles, procedures and terms of reference.
- The standards development professional will demonstrate the ability to assign roles to committee members by developing a list of roles and types of person best suited to those roles.

- The standards development professional will demonstrate knowledge of business planning for standardization work by developing a hypothetical business plan for a technical committee.
- The standards development professional will demonstrate knowledge of standardization practices by developing a list of typical standardization practices.

Duty A: Planning the standards work programme

Task A2: Develop standards work programme (Long term)



Steps:

- Collect background information/ data (legislation, laws, economic data, safety data, environmental, scientific etc.)
- Consult the national standards policy
- Identify areas needed at a national level for standardization
- Determine stakeholder needs
- Prioritize standards projects
- Identify the need for new technical committees
- Identify international, national and regional standards



Knowledge:

- Economic comparative advantages of specific countries
- ISO methodology for development of national standardization strategy (NSS)
- National and international priorities and directions
- Project planning and management
- Technical knowledge



Skills:

- · Analytical skills
- Critical thinking skills
- Leadership skills
- Project management skills
- Strategic thinking skills



Attributes/attitudes:

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Task A2: Develop standards work programme (Long term) (continued) Steps: Knowledge: Skills: Attributes/attitudes: Identify existing and needed resources Evaluate risks Identify milestones Establish key performance indicators (KPIs) Evaluate



programme outcomes

• Allocate resources (mobilization etc.)

• Validate/approve the programme

• Communicate the programme

- The standards development professional will demonstrate the ability to develop a longterm standards work programme by describing the typical components of a long-term standards work programme.
- The standards professional will demonstrate knowledge of typical background information and data that may be collected to support the development of standard work by listing typical information that should be collected including legislation, economic data, safety data, environmental data, scientific data etc.
- The standards professional will describe how to conduct a needs analysis to identify national needs for standardization.
- · The standards professional will describe how to identify the needs of stakeholders
- The standards professional will describe how to identify existing and needed resources.
- The standards professional will demonstrate knowledge of how to evaluate risks by defining risks associated with a specific standard.
- The standards professional will demonstrate the ability to establish KPIs by defining what KPIs are and developing a list of hypothetical KPIs.

- The standards professional will identify the components of programme evaluation and describe how they are used to evaluate a programme.
- The standards professional will demonstrate knowledge of how to allocate resources by describing resources in their NSB and region, and how they would be mobilized for standards development.
- The standards professional will describe the process for developing a national standardization strategy.
- The standards professional will demonstrate the ability to establish national and international priorities and directions by developing draft national and international priorities and directions for their specific NSB and region.
- The standards professional will demonstrate knowledge of project planning and management by describing tools available to plan and manage projects and developing a hypothetical standardization project plan.

Duty A: Planning the standards work programme

Task A3: Justify the need for a standard





Steps:

- Conduct an impact assessment
- Assess priorities (national, governmental, non-governmental, stakeholder, interested parties etc.)
- Evaluate risks (health, safety, environment, economic, social etc.)
- Consult national standardization policy
- Identify relevance to solving emerging issues

Knowledge:

- Economic indicators
- Market conditions, failures and needs
- National and international priorities and directions
- Risk evaluation methodologies
- Standards
- Standards development processes, procedures, functions and practices
- SWOT

(4)

Skills:

- Ability to conduct risk analysis
- Ability to engage others
- Active listening skills
- Analytical skills
- Computer literacy and skills
- Marketing skills
- Negotiation skills
- Presentation skills
- Research skills
- Verbal communication skills
- Written communication skills



- Devoted
- Emotional intelligence
- Flexible
- Non-discriminatory
- · Open-minded
- Strategic thinker
- Transparent

Task A3: Justify the need for a standard (continued) Knowledge: Attributes/attitudes: Skills: Steps: Alignment with national directives Evaluate potential impact of standard (number of people impacted, SDGs etc.) Address stakeholder requests Review catalogue of existing standards and documents



- The standards professional will describe how to justify the need for a standard.
- The standards professional will be able to describe the concept of an impact assessment and demonstrate the ability to conduct one by describing how one would be conducted.
- The standards professional will describe how to assess priorities.
- The standards professional will demonstrate knowledge of how to evaluate risks by identifying typical risks associated with a particular standard.
- The standards professional will demonstrate knowledge of how to evaluate the potential impact of standards by defining the impact a particular standard has had.
- The standards professional will describe the best methods for cataloguing standards and documents.
- The standards professional will identify economic indicators that impact standards development in a specific NSB or region.
- The standards professional will identify market conditions, failures and needs that will impact standards development in a specific NSB or region.
- The standards professional will demonstrate knowledge of standards development processes, procedures, functions and practices by correctly answering questions about standards development processes, procedures, functions and practices.
- The standards professional will demonstrate an understanding of SWOT analyses by defining the components of a SWOT analysis and how one would be conducted.

Duty A: Planning the standards work programme

Task A4: Prioritize the standards to be developed



Steps:

- Develop prioritization criteria (emerging issues, urgency of standard, requests from stakeholders etc.)
- Create a list of priorities
- Outline national and international priorities
- Map standards to the priorities



Knowledge:

- Budgeting and budgetary constraints
- · Emerging issues
- National and international priorities and directions
- National and international stakeholders



Skills:

- Analytical skills
- Decision-making skills
- Organizational skills
- Verbal communication skills
- Written communication skills



Attributes/attitudes:

- · Critical thinker
- Flexible
- Open-minded
- Strategic thinker
- · Team player



- The standards professional will demonstrate the ability to develop prioritization criteria for standards development by describing appropriate prioritization criteria for a particular NSB and region.
- The standards professional will identify issues that should be considered when developing prioritization criteria for standards development (emerging issues, urgency of standard, requests from stakeholders etc.).
- The standards professional will demonstrate the ability to create a list of priorities for standards development by developing a prioritization list for a particular NSB and region.
- The standards professional will demonstrate the ability to map standards to priorities by identifying existing standards or standards that should be developed to address a specific list of priorities.
- The standards professional will demonstrate knowledge of budgets by developing a sample standards development budget.
- The standards professional will demonstrate knowledge of emerging issues by creating a list and describing emerging issues for a particular NSB or region.
- The standards professional will identify national and international stakeholders.

Duty A: Planning the standards work programme

Task A5: Identify interested parties



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Steps:

- Identify stakeholders
- Obtain recommendations of potential stakeholders/ interested parties
- Establish liaison relationship with associations/ organizations for nominations
- Conduct workshops to obtain information on potential stakeholders
- Brainstorm and compile list of interested parties/ stakeholders
- Establish a strategy to reach out to interested parties/ stakeholders
- Consult relevant databases
- Ensure balance in stakeholder/ interested party representation

Knowledge:

- Basic knowledge of the specific sector
- Characteristics of stakeholders
- Cultural knowledge
- Databases and database management
- Definition of interested parties and stakeholders
- National and international priorities and directions
- Top exports and imports of a country

(3)

Skills:

- Ability to engage others
- Active listening skills
- · Analytical skills
- Cross-cultural communication skills
- IT skills
- Negotiation skills
- · Networking skills
- Planning skills
- Presentation skills
- Research skills
- · Research skills
- Stress
 Management skills
- Verbal communication skills
- Written communication skills

- Culturally sensitive
- Diplomatic
- Emotional intelligence
- Non-discriminatory



- The standards professional will be able to identify stakeholders in the standards development process, including obtaining recommendations.
- The standards professional will demonstrate the ability to establish liaison relationships with associations and organizations by creating a list of associations and organizations for which relationships should be established, and describing the steps to establish a relationship with those bodies.
- The standards professional will demonstrate the ability to conduct workshops to reach stakeholders by describing an agenda for a typical stakeholder workshop.
- The standards professional will compile a list of interested parties and stakeholders for a particular standard for their NSB or region.
- The standards professional will describe a strategy to reach out to interested parties and stakeholders and identify databases containing information on stakeholders and interested parties.
- The standards professional will describe how to ensure balance in stakeholders and interested parties.
- The standards professional will demonstrate knowledge of characteristics of stakeholders, including cultural knowledge, by creating a sample list of stakeholders for a hypothetical standard.
- The standards professional will be able to define interested parties and stakeholders.
- The standards professional will demonstrate knowledge of national and international priorities, and top exports and imports of a country by creating a list of national and international priorities, and creating a list of top exports and imports for a particular NSB in a specific region or country.

Duty A: Planning the standards work programme

Task A6: Develop a standards development workplan



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Steps:

Conduct standards research

- Establish the standards development budget
- Plan for standards development resources
- Establish standards development timelines
- Define the stages attained in the standards development
- List standards (NWIs) to be developed and associated timeline
- List standards to be adopted (outline the domains)
- Approve the workplan
- Notify the WTO/ ISO information gateway of the workplan
- Notify other relevant parties of the workplan
- Publish the workplan

Knowledge:

- Existing standards being developed at national, regional, international levels
- Good standardization practices (GSP)
- ICS
- National, regional and international catalogues and other scientific documentation
- Project planning and management
- Research methodologies
- Standardization bodies

Skills:

- Analytical skills
- Comprehension skills
- IT skills
- Marketing skills
- · Planning skills
- Project management skills
- · Research skills
- Search skills (e.g. Boolean)
- Written communication skills

- Creative
- Detail-oriented



- The standards development professional will demonstrate the ability to conduct standards research by describing how to conduct standards research, including where to look and the type of documents and research to collect.
- The standards development professional will describe the components of a standards development budget and demonstrate the ability to create a budget by creating a hypothetical standards development budget.
- The standards development professional will identify common resource needs for standards development.
- The standards development professional will demonstrate the ability to develop a standards development timeline by creating a hypothetical standards development timeline.

Duty B: Developing standards

Task B1: Constitute the technical committee





Steps:

- Identify domain for technical committee
- Select stakeholders (per criteria to ensure balanced participation/ representation)
- Contact the stakeholders
- Guide/induct committee members in participation rules, roles, procedures and terms of reference
- Assign specific roles to committee members
- Develop a business plan for the committee

Knowledge:

- Business planning for standardization work
- Committee
 member expertize
- Standardization practices

Skills:

- Ability to persuade others
- Consensus building skills
- IT skills
- · Negotiation skills
- Organizational skills
- · Planning skills
- Project management skills
- Stress management skills
- Verbal communication skills
- Written communication skills

- Goal-oriented
- · Open-minded



- The standards development professional will present information relevant to stakeholder participation, including rules, roles, procedures and terms of reference.
- The standards development professional will demonstrate the ability to assign roles to committee members by developing a list of roles and types of person best suited to those roles.
- The standards development professional will demonstrate the ability to create a business plan for a committee by creating a hypothetical business plan for a technical committee.
- The standards development professional will demonstrate knowledge of business planning for standardization work by developing a hypothetical business plan for a technical committee.
- The standards development professional will demonstrate knowledge of standardization practices by developing a list of typical standardization practices.

Duty B: Developing standards

Task B2: Manage standards stakeholders



Steps:

- Identify stakeholders (including underrepresented stakeholders)
- Identify stakeholder needs
- Engage stakeholders (industry associations, stakeholders, regulators, law makers, academic institutions etc.)



Knowledge:

- Budgeting and budgetary constraints
- Characteristics of stakeholders
- Partnership agreements instruments
- Sector and market of a standard
- Standardization bodies
- Typical committee structures



Skills:

- Leadership skills
- Negotiation skills
- Verbal communication skills
- Written communication skills



- Culturally sensitive
- Diplomatic
- Non-discriminatory
- Open-minded
- Transparent

Task B2: Manage standards stakeholders (continued) Steps: Knowledge: Attributes/attitudes: Skills: Ensure balance representation of stakeholders · Assign roles to stakeholders (leadership etc.) Ensure participants understand their roles Provide reports to stakeholders (budgets, progress, etc.) Develop partnerships



- The standards development professional will describe how to identify stakeholders and stakeholder needs.
- The standards development professional will list stakeholders that represent underrepresented populations and will describe how to engage them.
- The standards development professional will describe effective methodologies for engaging stakeholders.
- The standards development professional will define what a balance of representation of stakeholders is and how to ensure it.
- The standards development professional will describe the roles that may be assigned to stakeholders and how to determine who should be assigned what roles.
- The standards development professional will demonstrate the ability to ensure participants understand their roles by describing how to verify participants understand their roles and what to do if they do not.
- The standards development professional will describe effective methods for developing partnerships with stakeholder groups.
- The standards development professional will demonstrate knowledge of budgeting and how to address budgetary constraints by developing a hypothetical budget and describing typical ways around budgetary constraints.

- The standards development professional will identify the various characteristics of stakeholders for a particular NSB and region.
- The standards development professional will demonstrate knowledge of partnership agreement instruments by describing the major components of these agreements.
- The standards development professional will describe typical standards development committee structures.
- The standards development professional will describe the various types of standardization bodies.

Duty B: Developing standards

Task B3: Convene committee meetings





Steps:

- Supervise technical committee work
- Document all the steps involved with committee working
- Organize meeting logistics (date, location, virtual/ remote, times etc.)
- Prepare meeting materials (references, agenda etc.)
- Establish quorum
- Facilitate the meeting
- Prepare minutes/ records of the meeting (results, attendance etc.)

Knowledge:

- Code of ethics
- Good standardization practices (GSP)
- IT tools and services
- Meeting procedures
- Standard communication procedures
- Standards development processes, procedures, functions and practices

Skills:

- Ability to manage people
- Ability to motivate others
- Ability to persuade others
- Active listening skills
- · Analytical skills
- Conflict resolution skills
- Consensus building skills
- Critical thinking skills
- Cross-cultural communication skills
- Decision-making skills
- Interpersonal skills
- · Leadership skills
- Negotiation skills



- Creative
- Culturally sensitive
- Diplomatic
- Non-discriminatory
- Open-minded

Task B3: Convene committee meetings (continued)

Knowledge: Attributes/attitudes: Skills: Steps: Organizational Ensure consensus skills Conduct training Presentation skills on standards development Stress procedures and management skills code of ethics Teamwork Time management skills Verhal communication skills Written communication skills



- The standards development professional will develop procedures and processes to supervise technical committee work.
- The standards development professional will describe how to organize meeting logistics.
- The standards development professional will describe the various meeting materials that should be developed.
- The standards development professional will demonstrate the ability to facilitate a meeting by facilitating a mock meeting.
- The standards development professional will describe the process for preparing minutes/records of the meetings.
- The standards development professional will describe practices for ensuring consensus.
- The standards development professional will demonstrate the ability to conduct training on standards development procedures and the code of ethics by developing training materials and a plan for delivering those materials.
- The standards development professional will demonstrate knowledge of a code of ethics by describing the major components that should be in a code of ethics for committee participants.
- The standards development professional will demonstrate knowledge of good standardization practices by describing the major components that are covered by the good standardization practices.

- The standards development professional will describe common IT tools and services useful for convening committee meetings.
- The standards development professional will describe typical meeting formats and procedures.
- The standards development professional will describe typical standards development processes, procedures, functions and practices.

Duty B: Developing standards

Task B4: Develop draft standards Attributes/attitudes: Steps: Knowledge: Skills: · Outline the Standards Ability to manage Patience standards scope development meetings processes, Conflict resolution Convene procedures. committee skills functions and meetings · Consensuspractices Follow up with building skills Translation standards Leadership skills processes and development tasks Negotiation skills procedures · Identify documents Research skills needed Verbal Create various communication draft standards skills (working draft, Written committee communication draft, final draft skills standard) Document committee resolutions Organize workshops (commenting, drafting etc.) Translate standards



- The standards development professional will describe how to outline a standards scope and provide examples of standard scopes.
- The standards development professional will demonstrate knowledge of the process of convening a meeting by listing the typical steps.
- The standards development professional will describe the steps in creating various draft standards.
- The standards development professional will demonstrate the ability to organize workshops by describing the steps in organizing a typical workshop.
- The standards development professional will describe the processes and procedures to translate standards.
- The standards development professional will demonstrate knowledge of the standards development process by describing the process.

Duty B: Developing standards

Task B5: Disseminate standards for public inquiry Steps: Knowledge: Skills: Attributes/attitudes: Make draft · Avenues to reach · Consensus- Responsible standard available/ public building skills circulate Means of Organizational · Notify the public communications skills (via media) Standards Receive comments development to standards processes, procedures, Analyse standards functions and comments practices Organize workshops/ meetings of stakeholders to obtain comments



- · The standards development professional will describe procedures and methods for circulating standards.
- The standards development professional will describe the process and procedures for receiving comments on standards and addressing the comments.
- The standards development professional will describe various avenues for reaching the public for comments on standards.
- The standards development professional will describe methods for achieving consensus.

Duty B: Developing standards

Task B6: Edit draft standards



Steps:





Knowledge:

- Establish editing criteria and procedures for NSB
- Outsource editing (if required)
- · Establish TORs for editors (technical and language)
- Identify potential editors
- Qualify editors
- · Contract with outsourced editors (if relevant)
- Approve final edits
- Evaluate the editing process

- · Qualifications of editors
- Standards editing practices and quality control
- · Target language of a specific standard
- Technical knowledge

Skills:

- · Ability to connect the edited parts to the whole
- · Ability to ensure coherence in standards
- · Analytical skills
- Computer literacy and skills
- Editorial skills
- Evaluation skills
- Specific software competence



- Detail-oriented
- Focused



- The standards development professional will describe how to establish editing criteria and procedures for an NSB.
- The standards development professional will describe how to locate outsourced editors.
- The standards development professional will identify the components of TORs for editors.
- The standards development professional will describe methods for qualifying editors and what the typical qualifications for editors are.
- The standards development professional will demonstrate knowledge of how to evaluate the editing process by listing specific criteria that should be reviewed.
- The standards development professional will demonstrate knowledge of standards editing practices by answering simple editing questions.

Duty C: Participating in international and regional standardization

Task C1: Manage international and regional participation



Steps:

- Develop a strategy for participation
- Obtain/maintain membership in international/ regional bodies
- Define membership level
- Secure resources to participate in international and regional activities
- Train technical committee experts on international and regional procedures
- Report on national adoptions
- Participate in mutual recognition arrangements (MRAs)
- Pursue international leadership roles
- Participate in international and regional meetings
- Participate in training and workshops



Knowledge:

- Adult learner principles
- Basic understanding of mutual recognition arrangements
- International/ regional standardization participation process and procedures
- National laws
- Online standards platforms
- Technical knowledge of the fields/sectors in which seeking leadership roles



Skills:

- Ability to teach and train
- Consensusbuilding skills
- Decision-making skills
- Interpersonal skills
- IT skills
- Leadership skills
- Negotiation skills
- Networking skills
- Presentation skills
- Proficient in the language of the international body
- Stress management skills
- Verbal communication skills

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Attributes/attitudes:

Responsible



- The standards development professional will demonstrate the ability to develop a strategy for participation by drafting a sample strategy.
- The standards development professional will demonstrate knowledge of how to obtain and maintain membership in international and regional bodies by identifying appropriate bodies to join and listing the membership requirements for those bodies.
- The standards development professional will define the various membership levels for standardization.
- The standards development professional will describe how to secure resources to participate in standards activities.
- The standards development professional will describe methods for training technical committees on international and regional procedures.
- The standards development professional will list MRAs and describe how to participate in them.
- The standards development professional will list international leadership roles they may participate in.
- The standards development professional will participate in training, workshops and international and regional meetings.

Duty C: Participating in international and regional standardization

Task C2: Nominate experts (for international/regional participation)



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Steps:

- Identify sector/field where experts are needed
- Create a list of potential experts for participation
- Select experts
- Communicate with experts (obtain confirmation of interest)
- Establish registered expert user accounts

Knowledge:

- Business planning for standardization work
- International/ regional standardization participation process and procedures
- Sector/field where expertise is needed

Skills:

- Analytical skills
- Decision-making skills
- Interpersonal skills
- Negotiation skills
- Verbal communication skills



Attributes/attitudes:

- Diplomatic
- Non-discriminatory
- Team player



- The standards development professional will describe how to identify sectors/fields where experts are needed.
- The standards development professional will describe how to develop criteria for experts.
- The standards development professional will describe how to create a list of potential experts for participation.
- The standards development professional will create selection criteria for selecting experts.
- The standards development professional will describe various systems for registering and tracking expert user accounts.
- The standards development professional will demonstrate knowledge of business plans for standardization work by describing the components of a business plan.

Duty C: Participating in international and regional standardization

Task C3: Constitute a national mirror committee





Steps:

- Identify sector/field for the committee
- Identify stakeholders
- Communicate with stakeholders
- Establish criteria selection of committee members
- Select committee members
- Train committee members
- Map (register) the national mirror committee to international/ regional standardization body
- Establish stakeholder database
- Document the entire process

Knowledge:

- Good standardization practices (GSP)
- Mirror committee participation platform
- Roles and responsibilities of mirror committee members

(4)

Skills:

- Ability to manage databases
- Analytical skills
- Decision-making skills
- IT skills
- Negotiation skills
- Organizational skills
- · Presentation skills
- Project management skills
- Time management skills
- Verbal communication skills
- Written communication skills

- Creative
- Diplomatic
- Flexible
- Goal-oriented
- Non-discriminatory
- · Open-minded
- Responsible



- The standards development professional will describe how to identify sectors/fields where stakeholders are needed to constitute a national mirror committee.
- The standards development professional will develop criteria for the selection of stakeholders.
- The standards development professional will describe how to identify potential stakeholders for a national mirror committee.
- The standards development professional will describe the training that needs to occur for national mirror committees.
- The standards development professional will describe various stakeholder databases that are available.
- The standards development professional will describe the entire process of establishing a national mirror committee.
- The standards development professional will demonstrate knowledge of good standardization practices by describing the components of good standardization practices.
- The standards development professional will list the various roles and responsibilities required of national mirror committee members.

Duty C: Participating in international and regional standardization

Task C4: Establish national positions

Steps: Knowledge: Skills: Attributes/attitudes: Conduct national Comment collating Analytical skills Consistent consultation process · Conflict resolution Detail-oriented GSP Collect/collate skills Fmotional comments IT tools and Consensusintelligence Build consensus on services building skills Impartial national position Research · Cross-cultural Open-minded Cast ballots methodologies communication (internal and skills Standards ballot external) casting process Leadership skills · Conduct research Negotiation skills specific to the Research skills deliverable

Task C4: Establish national positions (continued)

Steps:	Knowledge:	Skills:	Attributes/attitudes:
Participate in scientific research		Time management skills	
 Participate in international and regional meetings Participate in international training and workshops 		 Translation skills Verbal communication skills Written communication skills 	



- The standards development professional will demonstrate the ability to create a standard catalogue system by describing the process to establish and operate the system.
- The standards development professional will describe how to operate and update the standards catalogue.
- The standards development professional will demonstrate knowledge of developing an abstract for standards by developing a hypothetical abstract for a standard.
- The standards development professional will describe how to develop key words for standards.
- The standards development professional will describe how to maintain a database of standards.
- The standards development professional will demonstrate knowledge of databases and database management by describing typical databases and database management.
- The standards development professional will describe information management techniques.
- The standards development professional will describe procedures to create and update digital standards.
- The standards development professional will describe typical sectors and markets for standards
- The standards development professional will describe typical standard catalogue systems.
- The standards development professional will define typical terminology associated with various standard sectors and markets.

Duty D: Publishing standards

Task D1: Secure approval to publish





Steps:

- Publish list of standards in Gazette
- Ensure standards copyright
- Print master copy

Knowledge:

- Copyrighting laws
- Document security procedures
- Standards publishing procedures and processes

Skills:

- · Analytical skills
- IT skills

Attributes/attitudes:

Detail-oriented



- The standards development professional will describe the process for publishing standards.
- The standards development professional will describe the process for copyrighting standards.
- The standards development professional will demonstrate knowledge of copyright laws by describing copyright practices.
- The standards development professional will demonstrate knowledge of standards publishing procedures and processes by describing typical procedures and processes.

Duty D: Publishing standards

Task D2: Create or update digital standards



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Steps:

- Create standard catalogue system
- Update standards catalogue
- Prepare standards preview
- Develop standards abstract
- Develop standards key words
- Maintain database of standards

Knowledge:

- Databases and database management
- Information management techniques
- Procedures to create and update digital standards
- Sector and market of a standard
- Standard catalogue systems
- Terminology associated with the sector and market of the standard

(8)

Skills:

- Ability to skim and comprehend documents
- Analytical skills
- · Editing skills
- IT skills
- Organizational skills
- Reading comprehension
- Time management skills
- Written communication skills



Attributes/attitudes:

- Creative
- Detail-oriented
- Flexible
- Punctual



- The standards development professional will demonstrate the ability to create a standard catalogue system by describing the process to establish and operate the system.
- The standards development professional will describe how to operate and update the standards catalogue.
- The standards development professional will demonstrate knowledge of developing standards abstracts by developing a hypothetical abstract for a standard.
- The standards development professional will describe how to develop key words for standards.
- The standards development professional will describe how to maintain a database of standards.

- The standards development professional will demonstrate knowledge of databases and database management by describing typical databases and database management.
- The standards development professional will describe information management techniques.
- The standards development professional will describe procedures to create and update digital standards.
- The standards development professional will describe typical sectors and markets for standards.
- The standards development professional will describe typical standard catalogue systems.
- The standards development professional will define typical terminology associated with various standard sectors and markets.

Duty D: Publishing standards

Task D3: Make standards available **(** Skills: Steps: Knowledge: Attributes/attitudes: Print standards Digital document IT skills Courteous tracking systems Receive new Marketing skills Customer-oriented request for Document security Detail-oriented Negotiation skills standards procedures Organizational Diplomatic (purchase order Familiarity with skills Patience etc.) standard sales Responsible Make standards channels (web available in web store etc.) Transparent stores Familiarity with the Send or provide standards sales standards to process customer IT tools and services Sign agreements with resellers (selling agents) Apply security features to standards (watermarks, trademarks etc.)



- The standards development professional will describe a typical system for publishing standards.
- The standards development professional will describe typical standard web store formats.
- The standards development professional will define the major components of typical reseller agreements.
- The standards development professional will identify the methods for applying security features to standards.
- The standards development professional will describe digital document tracking systems and the major components of them.
- The standards development professional will define document security procedures.
- The standards development professional will describe typical standard sales channels and the standard sales process.

Duty E: Promoting standards

Task E1: Develop a marketing communication plan



Steps:

- Create a media promotion plan
- Develop a communication plan
- Develop an event plan
- Identify promotional channels (i.e. invite students to committees)
- Identify standards to promote
- Identify goals and objectives of promotions
- Identify target markets for promotions
- Establish a promotional budget and resources
- Identify supplies to spread the promotion
- Develop promotional materials (content, scenarios, graphics etc.)
- Mobilize resources for the promotional plan



Knowledge:

- Budgeting and budgetary constraints
- Communication channels
- Event planning and management
- Marketing and marketing methodologies
- Media
- Public relations



Skills:

- Ability to influence others
- Interpersonal skills
- Leadership skills
- Negotiation skills
- Organizational skills
- · Presentation skills
- Public speaking skills
- Verbal communication skills



Attributes/attitudes:

- Creative
- Persuasive

Task E1: Develop a marketing communication plan (continued) Knowledge: Skills: Attributes/attitudes: Steps: Identify leaders/ experts for promotions (influencers) Identify stakeholders · Identify the needs of stakeholders Identify potential promotional partners Conduct market research



- The standards development professional will create a media promotion plan for an NSB.
- The standards development professional will develop a communication plan for an NSB.
- The standards development professional will develop an event plan for an NSB.
- The standards development professional will identify promotional/communication channels for marketing standards.
- The standards development professional will describe the process for selecting standards to promote.
- The standards development professional will list typical goals and objectives of promotional activities.
- The standards development professional will describe how to identify and select target markets for promotional activities.
- The standards development professional will describe the typical components of a promotional budget.
- The standards development professional will identify typical resources available for promoting standards.
- The standards development professional will list the supplies needed to promote standards.
- The standards development professional will develop promotional materials for a hypothetical promotional campaign.

- The standards development professional will describe how to identify leaders/experts (influencers) for promotions.
- The standards development professional will describe how to identify stakeholders and their needs.
- The standards development professional will describe how to identify potential promotional partners.
- The standards development professional will describe how to conduct market research.
- The standards development professional will describe typical marketing methodologies.
- The standards development professional will demonstrate knowledge of how to work with media by answering questions about media resources.

Duty E: Promoting standards

Task E2: Implement the marketing communication plan



Steps:

- Create market demand for the published standards
- Organize events, workshops, trade shows, exhibits or roundtables
- Disseminate promotional materials
- Conduct sensitization sessions
- Conduct promotional education
- Evaluate marketing communication plan



Knowledge:

- Basic knowledge of the specific sector
- Characteristics of stakeholders
- Cultural knowledge
- Databases and database management
- Event planning and management
- Market conditions, failures and needs
- Marketing and marketing methodologies



Skills:

- Ability to engage others
- Ability to teach and train
- Active listening skills
- Conflict resolution skills
- Evaluation skills
- Interpersonal skills
- Leadership skills
- Marketing skills
- Monitoring skills
- Project management skills
- Verbal communication skills



Attributes/attitudes:

- Attentive
- Creative
- Empathetic
- Result-oriented
- Team player
- Visionary

Task E2: Implement the marketing communication plan (continued)

Steps:	Knowledge:	Skills:	Attributes/attitudes:
 Engage stakeholders 			
Monitoring the implementation of the plan			



- The standards development professional will describe how to create market demand for published standards.
- The standards development professional will describe how to organize events, workshops, trade shows, exhibits and roundtables.
- The standards development professional will describe how to disseminate promotional materials.
- The standards development professional will describe the process for conducting sensitization sessions.
- The standards development professional will describe the process for conducting promotional education.
- The standards development professional will describe how to evaluate marketing communication plans.
- The standards development professional will list typical characteristics of stakeholders.
- The standards development professional will demonstrate cultural knowledge by answering cultural awareness questions.
- The standards development professional will describe instances of market failures.

Duty F: Managing support services (internal/external customers)

Task F1: Provide capacity building for stakeholders



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Steps:

- Identify stakeholders
- Survey stakeholder needs
- Determine training interest
- Prioritize training needs
- Establish needed training resources
- Establish a training framework
- Develop training materials
- Obtain training supplies (resource materials needed for training)
- Organize training logistics
- Modify/adapt existing training
- Develop training calendars/ workplans
- · Identify trainers
- Arrange experiential learning (OJT)
- Promote the training

Knowledge:

- Adult learning principles
- Budgeting and budgetary constraints
- Characteristics of stakeholders
- Good standardization practices (GSP)
- Learning management systems
- Presentation practices
- Technical knowledge in the training area
- Training methods

Skills:

- Ability to develop training materials
- Ability to engage others
- Ability to teach and train
- Active listening skills
- Comprehension skills
- Interpersonal skills
- IT skills
- Leadership skills
- Organizational skills
- · Presentation skills
- Public speaking skills
- Verbal communication skills
- Written communication skills

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Attributes/attitudes:

- Creative
- Detail-oriented
- Empathetic
- Flexible
- Goal-oriented
- Open-minded
- Patience

Task F1: Provide capacity building for stakeholders (continued) Steps: Knowledge: Skills: Attributes/attitudes: Conduct stakeholder training Evaluate training outcomes Assess learning outcome of participants Share post-training knowledge



- The standards development professional will describe how to survey stakeholder needs.
- The standards development professional will describe how to determine training interests.
- The standards development professional will describe how to prioritize training needs.
- The standards development professional will describe how to identify necessary training resources.
- The standards development professional will describe how to develop a training framework.
- The standards development professional will describe how to develop training materials.
- The standards development professional will describe how to obtain training supplies.
- The standards development professional will list the components of training calendars and workplans.
- The standards development professional will describe how to identify trainers.
- The standards development professional will describe the process for establishing experiential learning (OJT).
- The standards development professional will describe how to promote training.
- The standards development professional will describe how to evaluate the effectiveness of training.
- The standards development professional will describe typical processes for assessing the learning outcomes of training participants.
- The standards development professional will describe typical adult learning principles.

- The standards development professional will describe typical learning management systems.
- The standards development professional will describe effective presentation practices.
- The standards development professional will describe typical training methods.

Duty F: Managing support services (internal/external customers)

Task F2: Manage internal services Steps: Knowledge: Skills: Attributes/attitudes: · Coordinate with Basic · Ability to manage Procurement understanding people Services of legal rules and Leadership skills terms Coordinate with Negotiation skills **Facility Services** Customer Services Verbal · Coordinate with IT Human resource communication Services policies and skills procedures Coordinate with Written **Editorial Services** Internal operating communication procedures · Coordinate with skills Communication IT tools and Services services · Coordinate with Marketing Quality Assurance and marketing Services methodologies · Coordinate with Quality International management Relations · Coordinate with Marketing Services Coordinate with **Human Resources** · Coordinate with Conformity Assessment Services

Task F2: Manage internal services (continued)					
Steps:	Knowledge:	Skills:	Attributes/attitudes:		
 Coordinate with Legal Services 					
 Conduct customer surveys 					
• Evaluate customer service					
Develop a feedback mechanism					



- The standards development professional will discuss how to coordinate with procurement, facility, IT, editorial, communication, quality assurance, international relations, marketing, human, conformity assessment and legal services.
- The standards development professional will describe the process for conducting customer surveys.
- The standards development professional will describe how to evaluate customer service.
- The standards development professional will describe the components of a feedback mechanism.
- The standards development professional will demonstrate basic knowledge of legal rules and terms by answering questions about them.
- The standards development professional will describe typical human resource policies and procedures.
- The standards development professional will describe typical IT tools and services.
- The standards development professional will describe a quality management system.

Duty F: Managing support services (internal/external customers)

Task F3: Manage external customers



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Steps:

- Provide Customer Services
- Develop informational web portal
- Respond to customer feedback
- Conduct customer surveys
- Respond to enquiries
- Evaluate customer service
- Monitor complaints received
- Identify appropriate party to respond to customers
- Provide after-sales services
- Develop feedback mechanism
- Establish community management
- Address complaints
- Establish customer service agreements (charters)
- Provide services
 Proposals
- Provide information regarding services



Knowledge:

- Basic understanding of legal rules and terms
- Complaint procedures
- Customer Services
- Customers
- IT tools and services
- Marketing and marketing methodologies



Skills:



Attributes/attitudes:

People person



Behavioural objectives:

- The standards development professional will describe typical customer services policies and procedures, including obtaining customer feedback and responding to inquiries and complaints.
- The standards development professional will describe how to develop an informational web portal.
- The standards development professional will describe typical methods for evaluating customer service.
- The standards development professional will describe typical after-sales services.
- The standards development professional will describe the major components of customer service agreements.

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ISO has published more than 24 800* International Standards and related documents covering almost every industry, from technology to food safety, to agriculture and healthcare.

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