

# COMPETENCY STANDARDS

## DATA GOVERNANCE LEVEL IV



## INFORMATION AND COMMUNICATIONS TECHNOLOGY SECTOR

**TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY**  
East Service Road, South Luzon Expressway (SLEX), Taguig City, Metro Manila

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Technical Education and Skills Development Act of 1994  
(Republic Act No. 7796)

**Section 22, “Establishment and Administration of the National Trade Skills Standards” of the RA 7796 known as the TESDA Act mandates TESDA to establish national occupational skills standards. The Authority shall develop and implement a certification and accreditation program in which private industry group and trade associations are accredited to conduct approved trade tests, and the local government units to promote such trade testing activities in their respective areas in accordance with the guidelines to be set by the Authority.**

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The Competency Standards (CS) serve as basis for the:

- 1 Registration and delivery of training programs;
- 2 Development of curriculum and assessment instruments; and
- 3 Micro-credential program

Each CS has two sections:

Section 1     **Definition of Qualification** describes the qualification and defines the competencies that comprise the qualification.

Section 2     **Competency Standards** gives the specifications of competencies required for effective work performance.

# TABLE OF CONTENTS

## INFORMATION AND COMMUNICATIONS TECHNOLOGY SECTOR

### DATA GOVERNANCE LEVEL IV

	Page No.
SECTION 1    DEFINITION OF QUALIFICATION .....	1
SECTION 2    COMPETENCY STANDARDS .....	2 – 69
GLOSSARY OF TERMS .....	70
ACKNOWLEDGEMENTS .....	71 – 72

# COMPETENCY STANDARDS FOR DATA GOVERNANCE LEVEL IV

## SECTION 1: DEFINITION OF QUALIFICATION

The **DATA GOVERNANCE LEVEL IV** Qualification consists of competencies that a person must achieve to establish, manage, and enforce data policies, standards, and procedures, ensuring data security, compliance, and ethical use in AI or non-AI systems using data and compliance with applicable regulations.

The Units of Competency comprising this Qualification include the following:

UNIT CODE	BASIC COMPETENCIES
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500311401	Utilize specialized communication skills
500311402	Develop and lead teams
500311403	Perform higher-order thinking processes and apply techniques in the workplace
500311404	Contribute to the practice of social justice in the workplace
500311405	Manage innovative work instructions
500311406	Manage and evaluate usage of information
500311407	Lead in improvement of Occupational Safety and Health (OSH) programs, policies and procedures
500311408	Lead towards improvement of environment work programs, policies and procedures
500311409	Sustain entrepreneurial skills

UNIT CODE	COMMON COMPETENCIES
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ICT315202	Apply quality standards
ICT311203	Perform computer operations
CS-ICT252101	Ensure compliance with data privacy and ethics

UNIT CODE	CORE COMPETENCIES
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CS-ICT252103	Implement data governance principles
CS-ICT252104	Implement data governance tools
CS-ICT252105	Analyze ethical data management practices

A person who has achieved this Qualification is competent to be:

- Junior AI Data Governance Officer
- Data Governance Analyst
- Data Governance Associate
- Junior Data Steward
- Data Governance Coordinator
- Data Governance Support Specialist

## SECTION 2: COMPETENCY STANDARDS

This section gives the details of the contents of the units of competency required in  
**DATA GOVERNANCE LEVEL IV**

### BASIC COMPETENCIES

**UNIT OF COMPETENCY : UTILIZE SPECIALIZED COMMUNICATION SKILLS**

**UNIT CODE : 500311401**

**UNIT DESCRIPTOR :** This unit covers the knowledge, skills and attitudes required to use specialized communication skills to meet specific needs of internal and internal clients, conduct interviews, facilitate discussion with groups, and contribute to the development of communication strategies.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Meet common and specific communication needs of clients and colleagues	1.1. Specific communication needs of clients and colleagues are identified and met 1.2. Different approaches are used to meet communication needs of clients and colleagues 1.3. Conflict is addressed promptly in a manner which does not compromise the organization	1.1. Communication processes 1.2. Dynamics of groups and different styles of group leadership 1.3. Communication skills relevant to client groups 1.4. Flexibility in communication	1.1. Full range of communication techniques including: 1.1.1. Effective communication process 1.1.2. Active listening 1.1.3. Giving/receiving feedback 1.1.4. Interpretation of information 1.1.5. Role boundaries setting 1.1.6. Negotiation 1.1.7. Establishing empathy 1.1.8. Conduct seminars 1.1.9. Public speaking 1.2. Communication skills required to fulfill job roles as specified by the organization

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
2. Contribute to the development of communication strategies	<p>2.1. <b>Strategies</b> for internal and external dissemination of information are developed, promoted, implemented and reviewed as required</p> <p>2.2. Channels of communication are established and reviewed regularly</p> <p>2.3. Coaching in effective communication is provided</p> <p>2.4. Work related network and relationship are maintained</p> <p>2.5. Negotiation and conflict resolution strategies are used where required</p> <p>2.6. Communication with clients and colleagues is performed appropriate to individual needs and organizational objectives</p>	<p>2.1. Communication process</p> <p>2.2. Dynamics of groups and different styles of group leadership</p> <p>2.3. Openness and flexibility in communication</p> <p>2.4. Communication skills relevant to client groups</p>	<p>2.1. Full range of communication techniques including:</p> <p>2.1.1. Effective communication process</p> <p>2.1.2. Active listening</p> <p>2.1.3. Giving/receiving feedback</p> <p>2.1.4. Interpretation of information</p> <p>2.1.5. Role boundaries setting</p> <p>2.1.6. Negotiation</p> <p>2.1.7. Establishing empathy</p> <p>2.1.8. Conduct seminars</p> <p>2.1.9. Public speaking</p> <p>2.2. Communication skills required to fulfill job roles as specified by the organization</p>

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
3. Deliver a technical presentation	3.1 Presentation is delivered clearly, sequential and delivered within allotted time 3.2 Utilize appropriate media to enhance presentation 3.3 Differences in views/opinions are respected 3.4 Questions during fora are responded in a manner consistent with organizational standard	3.1 Communication process 3.2 Dynamics of groups and different styles of group leadership 3.3 Openness and flexibility in communication 3.4 Communication skills relevant to client groups	3.1 Full range of communication techniques including: 3.1.1 Effective communication process 3.1.2 Active listening 3.1.3 Giving/receiving feedback 3.1.4 Interpretation of information 3.1.5 Role boundaries setting 3.1.6 Negotiation 3.1.7 Establishing empathy 3.1.8 Openness and flexibility in communication 3.2 Communication skills required to fulfill job roles as specified by the organization
4. Represent the organization	4.1 When participating in internal or external forums, presentation is relevant, appropriately researched and presented in a manner to promote the organization	4.1 Communication process 4.2 Dynamics of groups and different styles of group leadership 4.3 Openness and flexibility in communication 4.4 Communication skills relevant to client groups	4.1 Full range of communication techniques including: 4.1.1 Effective communication process 4.1.2 Active listening 4.1.3 Giving/receiving feedback



ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	<p>4.2 Presentation is clear and sequential and delivered within a predetermined time</p> <p>4.3 Utilize appropriate media to enhance presentation</p> <p>4.4 Differences in views are respected</p> <p>4.5 Written communication is consistent with organizational standards</p> <p>4.6 Inquiries are responded in a manner consistent with organizational standard</p> <p>4.7 Consolidate ideas and suggestions</p> <p>4.8 Generalize and summarize all ideas and suggestions</p>		<p>4.1.4 Interpretation of information</p> <p>4.1.5 Role boundaries setting</p> <p>4.1.6 Negotiation</p> <p>4.1.7 Establishing empathy</p> <p>4.1.8 Openness and flexibility in communication</p> <p>4.2 Communication skills required to fulfill job roles as specified by the organization</p>
5. Facilitate group discussion	<p>5.1 Mechanisms which enhance <b>effective group interaction</b> is defined and implemented</p> <p>5.2 Strategies which encourage all group members to participate</p>	<p>5.1 Communication process</p> <p>5.2 Dynamics of groups and different styles of group leadership</p> <p>5.3 Openness and flexibility in communication</p> <p>5.4 Communication skills relevant to</p>	<p>5.1 Full range of communication techniques including:</p> <p>5.1.1 Effective communication process</p> <p>5.1.2 Active listening</p>

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	<p>are used routinely</p> <p>5.3 Objectives and agenda for meetings and discussions are routinely set and followed</p> <p>5.4 Relevant information is provided to group to facilitate outcomes</p> <p>5.5 Evaluation of group communication strategies is undertaken to promote participation of all parties</p> <p>5.6 Specific communication needs of individuals are identified and addressed</p>	client groups	<p>5.1.3 Giving/receiving feedback</p> <p>5.1.4 Interpretation of information</p> <p>5.1.5 Role boundaries setting</p> <p>5.1.6 Negotiation</p> <p>5.1.7 Establishing empathy</p> <p>5.1.8 Openness and flexibility in communication</p> <p>5.2 Communication skills required to fulfill job roles as specified by the organization</p>
6. Conduct interview	<p>6.1 A range of appropriate communication strategies are employed in <b>interview situations</b></p> <p>6.2 Records of interviews are made and maintained in accordance with organizational procedures</p> <p>6.3 Effective questioning, listening and</p>	<p>6.1 Communication process</p> <p>6.2 Dynamics of groups and different styles of group leadership</p> <p>6.3 Effective questioning techniques</p> <p>6.4 Communication skills relevant to client groups</p>	<p>6.1 Full range of communication techniques including:</p> <p>6.1.1 Effective communication process</p> <p>6.1.2 Active listening</p> <p>6.1.3 Giving/receiving feedback</p> <p>6.1.4 Interpretation of information</p>

ELEMENT	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	nonverbal communication techniques are used to ensure that required message is communicated		6.1.5 Role boundaries setting 6.1.6 Negotiation 6.1.7 Establishing empathy 6.2 Effective clarifying and probing techniques (questioning skills) 6.3 Communication skills required to fulfill job roles as specified by the organization

## RANGE OF VARIABLES

VARIABLE	RANGE
1. Strategies	May include but not limited to: 1.1. Recognizing own limitations 1.2. Referral to specialists 1.3. Utilizing techniques and aids 1.4. Providing written drafts 1.5. Verbal and non verbal communication
2. Effective Group Interaction	May include but not limited to: 2.1. Identifying and evaluating what is occurring within an interaction in a non judgmental way 2.2. Using active listening 2.3. Making decision about appropriate words, behavior 2.4. Putting together response which is culturally appropriate 2.5. Expressing an individual perspective 2.6. Expressing own philosophy, ideology and background and exploring impact with relevance to communication 2.7. Openness and flexibility in communication
3. Types of Interview	May include but not limited to: 3.1. Related to staff issues 3.2. Routine 3.3. Confidential 3.4. Evidential 3.5. Non disclosure 3.6. Disclosure
4. Interview Situations	May include but not limited to: 4.1. Establish rapport 4.2. Elicit facts and information 4.3. Facilitate resolution of issues 4.4. Develop action plans 4.5. Diffuse potentially difficult situation

## EVIDENCE GUIDE

1. Critical Aspects of Competency	<b>Assessment requires evidence that the candidate:</b> 1.1 Demonstrated effective communication skills with clients accessing service and work colleagues 1.2 Adopted relevant communication techniques and strategies to meet client particular needs and difficulties
2. Resource Implications	2.1 Access to appropriate workplace where assessment can take place
3. Methods of Assessment	<b>Competency in this unit may be assessed through:</b> 3.1 Case Study 3.2 Interview 3.3 Portfolio 3.4 Written Test 3.5 Role Play
4. Context for Assessment	4.1 This unit should be assessed on the job through simulation

**UNIT OF COMPETENCY : DEVELOP AND LEAD TEAMS**

**UNIT CODE : 500311402**

**UNIT DESCRIPTOR :** This unit covers the skills, knowledge and attitudes required to determine individual and team development needs and facilitate the development of the workgroup.

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Foster individual growth	<p>1.1 <b><i>Learning and development needs</i></b> of team members are systematically identified in line with <b><i>organizational requirements</i></b></p> <p>1.2 Development plan to meet individual needs is collaboratively developed and implemented</p> <p>1.3 Individuals are encouraged to self-evaluate performance and identify areas for improvement</p> <p>1.4 <b><i>Feedback on performance</i></b> of team members is collected from relevant sources and compared with established team learning process</p>	<p>1.1 Effective workplace communication, coaching and mentoring principles</p> <p>1.2 Feedback principles and procedures</p> <p>1.3 Working interdependently : strategies and techniques</p> <p>1.4 Leadership Concepts:</p> <ul style="list-style-type: none"><li>• Types of Decision Teams Make</li><li>• Team Responsibilities</li><li>• Problems that Affect Teams</li><li>• Building Strong Team Communication</li><li>• Expressing Yourself on a Team</li><li>• Team Problem Solving</li></ul>	<p>1.1 Ability to read and understand a variety of texts, prepare general information and documents according to target audience; spell with accuracy; use grammar and punctuation effective relationships and conflict management</p> <p>1.2 Coaching and mentoring skills to provide support to colleagues</p> <p>1.3 Communication skills including receiving feedback and reporting, maintaining effective relationships and conflict management</p> <p>1.4 Ability to relate to people from a range of social, cultural, physical and</p>

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
			<p>mental backgrounds</p> <p>1.5 Planning skills to organize required resources and equipment to meet learning needs</p> <p>1.6 Reporting skills to organize information; assess information for relevance and accuracy; identify and elaborate on learning outcomes</p> <p>1.7 Facilitation skills to conduct small group training sessions</p>
2. Foster individual and team growth	<p>2.1 Learning and development program goals and objectives are identified to match the specific knowledge and skills requirements of competency standards</p> <p>2.2 <b><i>Learning delivery methods</i></b> are appropriate to the learning goals, the learning style of participants and availability of equipment and resources</p> <p>2.3 Workplace learning opportunities and</p>	<p>2.1 Advanced coaching and mentoring techniques</p> <p>2.2 Performance evaluation concepts</p> <p>2.3 Training and development techniques</p>	<p>2.1 Instructional planning and delivery skills</p> <p>2.2 Monitoring and evaluation skills</p> <p>2.3 Mentoring and coaching skills</p>

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	coaching/ mentoring assistance are provided to facilitate individual and team achievement of competencies 2.4 Resources and timelines required for learning activities are identified and approved in accordance with organizational requirements		
3. Monitor and evaluate workplace learning	3.1 Feedback from individuals or teams is used to identify and implement improvements in future learning arrangements 3.2 Outcomes and performance of individuals/teams are assessed and recorded to determine the effectiveness of development programs and the extent of additional support 3.3 Modifications to learning plans are negotiated to improve the efficiency and effectiveness of learning 3.4 Records and reports of competency are	3.1 Types and levels of learning evaluation 3.2 Learning styles and strategies 3.3 Training and development approaches	3.1 Instructional planning and delivery skills 3.2 Monitoring and evaluation skills 3.3 Mentoring and coaching skills



ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	maintained within organizational requirement		
4. Develop team commitment and cooperation	4.1 Open communication processes to obtain and share information is used by team 4.2 Decisions are reached by the team in accordance with its agreed roles and responsibilities 4.3 Mutual concern and camaraderie are developed in the team 4.4 Career planning for each member are monitored	4.1 Career development for group members 4.2 Principles of team commitment and cooperation 4.3 Team dynamics and performance	4.1 Instructional planning and delivery skills 4.2 Monitoring and evaluation skills 4.3 Mentoring and coaching skills
5. Facilitate accomplishment of team goals	5.1 Team members actively participated in team activities and communication processes 5.2 Teams members developed individual and joint responsibility for their actions 5.3 Collaborative efforts are sustained to attain organizational goals	5.1 Group Development Process and Principles as applied in the workplace 5.2 Principles of organizational development 5.3 Collaboration principles and procedures	5.1 Instructional planning and delivery skills 5.2 Monitoring and evaluation skills 5.3 Mentoring and coaching skills 5.4 Organizational leadership

## RANGE OF VARIABLES

VARIABLE	RANGE
1. Learning and Development Needs	May include but not limited to: 1.1 Coaching, mentoring and/or supervision 1.2 Formal/informal learning program 1.3 Internal/external training provision 1.4 Work experience/exchange/opportunities 1.5 Personal study 1.6 Career planning/development 1.7 Performance appraisals 1.8 Workplace skills assessment 1.9 Recognition of prior learning 1.10 Job design and enrichment
2. Organizational Requirements	May include but not limited to: 2.1 Quality assurance and/or procedures manuals 2.2 Goals, objectives, plans, systems and processes 2.3 Legal and organizational policy/guidelines and requirements 2.4 Safety policies, procedures and programs 2.5 Confidentiality and security requirements 2.6 Business and performance plans 2.7 Ethical standards 2.8 Quality and continuous improvement processes and standards
3. Feedback on Performance	May include but not limited to: 3.1 Formal/informal performance appraisals 3.2 Obtaining feedback from supervisors and Colleagues 3.3 Obtaining feedback from clients 3.4 Personal and reflective behavior strategies 3.5 Routine and organizational methods for monitoring service delivery
4. Learning Delivery Methods	May include but not limited to: 4.1 On the job coaching or mentoring 4.2 Problem solving 4.3 Presentation/demonstration 4.4 Formal course participation 4.5 Work experience 4.6 Involvement in professional networks 4.7 Conference and seminar attendance 4.8 Induction

## EVIDENCE GUIDE

1. Critical Aspects of Competency	<b>Assessment requires evidence that the candidate:</b> 1.1. Identified and implemented learning opportunities for others 1.2. Gave and received feedback constructively 1.3. Facilitated participation of individuals in the work of the team 1.4. Negotiated learning plans to improve the effectiveness of learning 1.5. Prepared learning plans to match skill needs 1.6. Accessed and designated learning opportunities
2. Resource Implications	<b>The following resources should be provided:</b> 2.1. Access to relevant workplace or appropriately simulated environment where assessment can take place 2.2. Materials relevant to the proposed activity or tasks
3. Methods of Assessment	Competency in this unit may be assessed through: 3.1. Observation of work activities of the individual member in relation to the work activities of the group 3.2. Observation of simulation and or role play involving the participation of individual member to the attainment of organizational goal 3.3. Case studies and scenarios as a basis for discussion of issues and strategies in teamwork
4. Context for Assessment	4.1. Competency may be assessed in workplace or in a simulated workplace setting 4.2. Assessment shall be observed while tasks are

**UNIT OF COMPETENCY : PERFORM HIGHER-ORDER THINKING PROCESSES AND APPLY TECHNIQUES IN THE WORKPLACE**

**UNIT CODE : 500311403**

**UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes required to use fundamental critical thinking skills in the workplace.**

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Evaluate effectiveness and efficiency of the workplace systems, processes and procedures.	1.1 <b>Effectiveness and efficiency</b> of workplace standards and procedures are examined. 1.2 Usage of inquiry and dialogue to communicate evaluation measures and results are implemented. 1.3 Evaluation reports are prepared and communicated to team members.	1.1 Systems, standards, procedures and protocols in the workplace. 1.2 Different methods of critical and appreciative inquiry and their relevance to different situations 1.3 Techniques to assist in forming the habit of asking questions and taking responsibility for answers. 1.4 Why questions are important and the benefits of asking good questions for individuals, businesses and communities (the importance of critical thinking).	1.1 Using range of analytical techniques (e.g., planning, attention, simultaneous and successive processing of information). 1.2 Communicating to actively listen and to ask questions of others in a constructive way. 1.3 Using critical thinking pathways to formulate and ask relevant questions and come up with appropriate answers. 1.4 Performing assimilation and accommodation skills to interpret and distill key information of relevance to a given situation. 1.5 Assessing and measuring the extent of effectiveness

			and efficiency of the systems, processes and procedures in the workplace.
2. Foster the habit of critical inquiry and curiosity in the workplace	<p>2.1 Issues and situations are reflected on and wondered about.</p> <p>2.2 Issues and problems in the workplace particularly in the policies, procedures and protocols are discussed and evaluated between and among teams.</p> <p>2.3 Evaluation of efficiency and effectiveness of workplace policies, procedures and protocols are documented, communicated and agreed upon between and among teams.</p> <p>2.4 Growth mindset and positive relationship and communication is applied in the context of <b>curiosity and critical inquiry</b> in the workplace.</p>	<p>2.1 Different methods of critical and appreciative inquiry and their relevance to different situations.</p> <p>2.2 Techniques to assist in forming the habit of asking questions and taking responsibility for answers.</p> <p>2.3 Why questions are important and the benefits of asking good questions for individuals, businesses and communities (the importance of critical thinking).</p> <p>2.4 Growth mindset and positive communication and relationship strategies and techniques.</p>	<p>2.1 Using range of analytical techniques (e.g., planning, attention, simultaneous and successive processing of information).</p> <p>2.2 Communicating to actively listen and to ask questions of others in a constructive way.</p> <p>2.3 Using critical thinking pathways to formulate and ask relevant questions and come up with appropriate answers.</p> <p>2.4 Performing assimilation and accommodation skills to interpret and distill key information of relevance to a given situation.</p> <p>2.5 Assessing and measuring the extent of effectiveness and efficiency of the systems, processes and procedures in the workplace.</p> <p>2.6 Communicating insights on</p>

			workplace effectiveness and efficiency.
3. Develop practical action plans for improving workplace conditions.	<p>3.1 Evaluation of efficiency and effectiveness of workplace policies, procedures and protocols are documented, communicated to stakeholders.</p> <p>3.2 <b>Practical action plans</b> in improving workplace conditions are formulated, presented and negotiated with stakeholders.</p> <p>3.3 Proposed changes and directions are inquired, processed and negotiated between and among teams, and stakeholders as well of the organization.</p> <p>3.4 Commitment to continuous improvement and change is highlighted.</p> <p>3.5 Passion and dedication for changing and adapting to the demands of the 21st century workplace are considered.</p>	<p>3.1 Different methods of critical and appreciative inquiry and their relevance to different situations.</p> <p>3.2 Techniques to assist in forming the habit of asking questions and taking responsibility for answers.</p> <p>3.3 Why questions are important and the benefits of asking good questions for individuals, businesses and communities (the importance of critical thinking).</p> <p>3.4 Growth mindset and positive communication and relationship strategies and techniques.</p> <p>3.5 Creative negotiation skills.</p> <p>3.6 Change management and continuous improvement concepts.</p>	<p>3.1 Using range of analytical techniques (e.g., planning, attention, simultaneous and successive processing of information).</p> <p>3.2 Communicating to actively listen and to ask questions of others in a constructive way.</p> <p>3.3 Using critical thinking pathways to formulate and ask relevant questions and come up with appropriate answers.</p> <p>3.4 Performing assimilation and accommodation skills to interpret and distill key information of relevance to a given situation.</p> <p>3.5 Assessing and measuring the extent of effectiveness and efficiency of the systems, processes and procedures in the workplace.</p> <p>3.6 Communicating practical insights on improving workplace conditions.</p>

## RANGE OF VARIABLES

VARIABLE	RANGE
1. Effectiveness and Efficiency	May include but not limited to: 1.1 Developing a more efficient way of doing something 1.2 Developing a new idea 1.3 Developing and improving products and services 1.4 Enhancing skills and career opportunities 1.5 Enhancing the physical environment 1.6 Financial benefit 1.7 Greater personal satisfaction 1.8 Improving interpersonal relationships 1.9 Evaluating overall workplace conditions
2. Curiosity and Critical Inquiry	May include but not limited to: 2.1 Accuracy 2.2 Breadth 2.3 Clarity 2.4 Depth 2.5 Emotion 2.6 Fairness 2.7 Logic 2.8 Meaning 2.9 Planning 2.10 Attention 2.11 Precision 2.12 Relevance 2.13 Significance 2.14 Social engagement 2.15 Society 2.16 Style 2.17 Growth mindset 2.18 Positive communication 2.19 Positive negotiation 2.20 Workplace conditions 2.21 Appreciative inquiry methods
3. Practical Action Plans	May include but not limited to: 3.1 Insights on continuous improvement 3.2 Creative strategies and techniques for becoming better at work and real life 3.3 Career plans 3.4 Challenging workplace policies, procedures and protocols 3.5 Specifying plans for change and adapting to the demands of the contemporary workforce 3.6 Challenges in negotiating with stakeholders and teams 3.7 Change management, innovation and knowledge creation 3.8 Contractual agreements 3.9 Extreme time pressure or non-negotiable deadlines

	3.10 Financial limitations 3.11 Procedures determined by laws or other regulations 3.12 Safety issues 3.13 When others are totally closed to new ideas 3.14 Acknowledging shared responsibility 3.15 Adopting a positive 'can do' attitude 3.16 Following up on practical details 3.17 Pro-actively seeking information 3.18 Suggesting a new approach 3.19 Talking to others about possible answers 3.20 Constraints of the broader context and environment 3.21 Overall goal - what needs to be achieved 3.22 Personal hopes and expectations
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## EVIDENCE GUIDE

1. Critical Aspects of Competency	<p><b>Assessment requires evidence that the candidate:</b></p> <ul style="list-style-type: none"> <li>1.1 Evaluated the effectiveness and efficiency of workplace systems, processes and procedures.</li> <li>1.2 Modeled the conscious process of critical inquiry to get new insights that s/he can get in formulating action plans on continuous improvement in the workplace and real-life</li> <li>1.3 Practiced the habit of critical inquiry and curiosity in the workplace</li> <li>1.4 Shown a thorough knowledge and understanding of how critical thinking impacts on individual lives, the broader community and work situations.</li> <li>1.5 Developed practical action plans for improving workplace conditions</li> </ul>
2. Resource Implications	<ul style="list-style-type: none"> <li>2.1. Interactions with specific challenges and situations to demonstrate the application of critical thinking (this would usually involve interactions with others).</li> </ul>
3. Methods of Assessment	<p><b>Competency in this unit may be assessed through:</b></p> <ul style="list-style-type: none"> <li>3.1 Direct questioning combined with review of portfolios of evidence and third-party workplace reports of on-the-job performance by the candidate</li> <li>3.2 Evaluation of a candidate blog exploring different ideas and questions</li> <li>3.3 Review of candidate response to scenarios that allow the candidate to apply critical thinking techniques to a life or work situation, and to demonstrate ability to portray curiosity and exploration of new concepts</li> <li>3.4 Evaluation of candidate response to the challenge of adopting different perspectives on a situation, and ability to both develop and respond to questions from those perspectives</li> <li>3.5 Observation of the candidate participating in a group problem-solving session</li> <li>3.6 Oral or written questioning to assess knowledge of typical blockers to the critical thinking process.</li> <li>3.7 Life Narrative Inquiry to reflect life stories that reflect how critical thinking and problem solving is applied in the lives.</li> </ul>
4. Context for Assessment	<ul style="list-style-type: none"> <li>4.1 In all workplace, it may be appropriate to assess this unit concurrently with relevant teamwork or operation units.</li> </ul>

**UNIT OF COMPETENCY : CONTRIBUTE TO THE PRACTICE OF SOCIAL JUSTICE IN THE WORKPLACE**

**UNIT CODE : 500311404**

**UNIT DESCRIPTOR :** This unit covers ways and means to assume active roles in resolving local and global challenges and to become proactive contributors to a more peaceful and sustainable world.

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Update self on local, national and global trends/ issues in the workplace	<p>1.1 <b>Media</b> are regularly <b>scanned/monitored</b> for trends and issues relevant to human rights, gender equality, promotion of culture of peace and non-violence, global citizenship and appreciation of cultural diversity.</p> <p>1.2 Knowledge and understanding of local, national and global issues and their interconnectedness and interdependence are acquired.</p> <p>1.3 Notable issues and trends are critically examined and discussed with peers, colleagues, or family members.</p>	<p>1.1 Local, national and global systems and structures</p> <p>1.2 Issues affecting interaction and connectedness of communities at local, national and global levels</p> <p>1.3 Underlying assumptions and power dynamics (politics, understanding political system, social structures, labor laws, labor relations, human right)</p>	<p>1.1 Monitoring trends and issues relevant to human rights, gender equality, culture of peace, global citizenship, and cultural diversity using different media platforms</p> <p>1.2 Analyzing trends and issues relevant to human rights, gender equality, culture of peace, global citizenship, and cultural diversity</p> <p>1.3 Engaging in discourse about the local, national and global issues</p>
2. Relate local and global trends to workplace context	<p>2.1 Local events are reflected on for implications in one's own</p>	<p>2.1 Different levels of human identity according to</p>	<p>2.1 Recognizing differences and commonalities among people</p>

	<p>situation and in the external global environment.</p> <p>2.2 Sense of belonging to a common humanity, sharing values and responsibilities are developed.</p> <p>2.3 Attitudes of empathy, solidarity and respect for differences and diversity are strengthened</p>	<p>Amber Mayer (2015)</p> <p>2.2 Different communities people belong to and how these are connected</p> <p>2.3 Difference and respect for cultural diversity</p>	<p>2.2 Strengthening attitudes of empathy, solidarity and respect for diversity</p> <p>2.3 Connecting local issues to global trends, and vice versa.</p>
3. Engage and take actions on workplace issues and concerns	<p>3.1 Effective and responsible actions at local, national and global levels are identified.</p> <p>3.2 Motivation and willingness to take necessary actions are developed.</p> <p>3.3 Attitude of “thinking globally and acting locally” is practiced.</p>	<p>3.1 Actions that can be taken individually and collectively</p> <p>3.2 Ethically responsible behavior</p> <p>3.3 Importance and benefits of civic engagement</p> <p>3.4 Strategies and techniques of “thinking globally and acting locally</p>	<p>3.1 Employing appropriate actions to address workplace issues involving national and global trends</p> <p>3.2 Showing concern and willingness to take part in the development efforts to discuss workplace issues and concerns</p> <p>3.3 Applying the attitude of “thinking globally and acting locally” in the workplace</p>

## RANGE OF VARIABLES

VARIABLE	RANGE
1. Media	May include but not limited to: 1.1 Print media 1.2 Broadcast media 1.3 Internet and social media
2. Scanning/Monitoring	May include but not limited to: 2.1 Sourcing from key informants 2.2 Conversation with clients 2.3 Man-on-the-street conversation 2.4 Scanning print and broadcast media
3. Local, National and Global Issues	May include but not limited to: 3.1 Poverty 3.2 Unemployment 3.3 Global warming 3.4 Safety, security, and well-being

## EVIDENCE GUIDE

1. Critical Aspects of Competency	<b>Assessment requires evidence that the candidate:</b> 1.1 Express emotions appropriately 1.2 Demonstrated ability to think and act based on one's principles and values 1.3 Demonstrated a holistic/global outlook on internal and external events in the workplace
2. Resource Implications	<b>The following resources should be provided:</b> 2.1. Access to workplace and resources 2.2. Case studies
3. Methods of Assessment	Competency in this unit may be assessed through: 3.1. Demonstration or simulation with oral questioning 3.2. Case problems involving global and local issues 3.3. Third-party report
4. Context for Assessment	4.1. Competency assessment may occur in workplace or any appropriately simulated environment

**UNIT OF COMPETENCY : MANAGE INNOVATIVE WORK INSTRUCTIONS**

**UNIT CODE : 500311405**

**UNIT DESCRIPTOR :** This unit covers the knowledge, skills and attitudes required to sustain and develop a workplace environment in which improvement, innovation and learning are promoted and reinforced.

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Review and analyze existing workplace practices	1.1 Current instructions and strategies to perform tasks in the workplace are reviewed 1.2 Climate for <b>innovation</b> at the organizational level is defined 1.3 Innovation drivers in the workplace are identified	1.1 Four drivers of innovation according to Gallup Management Journal (2007) 1.2 Contextual variables related to innovative practices in the organization 1.3 The nine dimensions of innovation climate (Isaksen & Isaksen, 2018) 1.4 Types of Innovation identified by Gopalakrishnan and Dama	1.1 Investigating the organizational needs in the innovation process 1.2 Defining current organizational innovative practices 1.3 Linking innovation to contextual variables in the organization
2. Examine opportunities for continuous improvement and innovation of practices in the workplace	2.1 Effectiveness of innovative practices in the workplace is determined 2.2 <b>Innovative behaviors</b> of leaders or managers in the organization are assessed 2.3 Driving principles of innovation are discussed	2.1 Determinants of innovative behavior by Scott and Bruce (1992) 2.2 Four principles of innovation according to Gallup Management Journal (2007)	2.1 Evaluating organizational innovative practices 2.2 Gauging innovative behaviors of the leaders and managers in the organization 2.3 Deliberating opportunities and challenges in implementing innovation

<p>3. Implement innovative ways in the conduct of usual workplace practices</p>	<p>3.1 Innovative behaviors in the workplace are performed</p> <p>3.2 Innovative climate in the workplace is maintained</p> <p>3.3 Adoption or modification of new ideas relevant to the organizational needs is achieved</p>	<p>3.1 Determinants of innovative behavior by Scott and Bruce (1992)</p> <p>3.2 The nine dimensions of innovation climate (Isaksen &amp; Isaksen, 2018)</p> <p>3.3 Techniques in implementing innovative change in the workplace</p>	<p>3.1 Developing risk management techniques and control systems</p> <p>3.2 Evaluating impact of changes and developing action plans</p> <p>3.3 Demonstrating strategies and techniques in managing changes in the workplace</p>
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## RANGE OF VARIABLES

VARIABLE	RANGE
1. Innovation	May include but not limited to: 1.1 Products versus processes 1.2 Radical versus incremental 1.3 Technical versus administrative
2. Innovative Behaviors	May include but not limited to: 2.1 Always generate creative ideas or new solutions 2.2 Exploring and secure funds or resources required for implementing new ideas 2.3 Establishing adequate plans and schedules for implementing new ideas 2.4 Contributing suggestions or approaches for others' creative ideas

## EVIDENCE GUIDE

1. Critical Aspects of Competency	<b>Assessment requires evidence that the candidate:</b> 1.1 Analyzed and evaluated systems and performance in key areas of the organization and identify opportunities for improvement, seeking advice from experts as appropriate 1.2 Promoted the value of creativity, innovation and sustainability and recognize successes 1.3 Supported the testing and trialing of new ideas and undertake risk management and cost-benefit analysis for options 1.4 Planned for and implemented improvements using organization's processes for approvals, project management and change management 1.5 Facilitated effective contributions to and communications about continuous improvement and innovation 1.6 Captured insights, experiences and ideas for improvements and incorporate them into the organization's knowledge management systems and future planning
2. Resource Implications	The following resources should be provided: 2.1 Impact evaluation materials (guide and form)
3. Methods of Assessment	<b>Competency in this unit may be assessed through:</b> 3.1 Interview 3.2 Written Evaluation 3.3 Case Analysis
4. Context for Assessment	4.1 Competency may be assessed individually in the actual workplace or simulation environment in TESDA accredited institutions

**UNIT OF COMPETENCY : MANAGE AND EVALUATE USAGE OF INFORMATION**

**UNIT CODE : 500311406**

**UNIT DESCRIPTOR : This unit of competency covers the knowledge, skills and attitudes required to support**

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Review information needs and sources	1.1 The <b>information</b> needs of individuals/teams are determined and the sources are identified. 1.2 Information held by the organization is reviewed to determine suitability and accessibility. 1.3 Plans are prepared to obtain information that is not available or accessible within the organization.	1.1 Analysis and display techniques 1.2 Information evaluation issues 1.3 Information storage requirements and methods 1.4 Reporting procedures of the organization	1.1 Analyzing record information 1.2 Communicating effectively 1.3 Disseminating information 1.4 Presenting information



2. Collect and analyze information	<p>2.1 <b>Collection of information</b> is interpreted timely and relevant to the needs of individuals/teams.</p> <p>2.2 Information is collected in formal suitable for <b>analysis</b>, interpretation and dissemination.</p> <p>2.3 Information is analyzed to identify relevant trends and developments in terms of the needs for which is acquired.</p>	<p>2.1 Information collection, collation</p> <p>2.2 Analysis and display techniques</p> <p>2.3 Information evaluation issues</p> <p>2.4 Information storage requirements and methods</p> <p>2.5 Reporting procedures of the organization</p>	<p>2.1 Collecting and collating information</p> <p>2.2 Analyzing record information</p> <p>2.3 Communicating effectively</p> <p>2.4 Disseminating information</p> <p>2.5 Presenting information</p>
3. Use management information systems	<p>3.1 <b>Management information systems</b> are used to store and retrieve data for decision making.</p> <p>3.2 Technology available in the work area/ organization is used to manage information.</p> <p>3.3 Recommendations for improving the information system are submitted to designated persons/ groups.</p>	<p>3.1 Analysis and display techniques</p> <p>3.2 Information collection, collation</p> <p>3.3 Information evaluation issues</p> <p>3.4 Information storage requirements and methods</p> <p>3.5 Reporting procedures of the organization</p>	<p>3.1 Analyzing record information</p> <p>3.2 Collecting and collating information</p> <p>3.3 Communicating effectively</p> <p>3.4 Disseminating information</p> <p>3.5 Presenting information</p> <p>3.6 Using management information systems to store and retrieve data</p>

## RANGE OF VARIABLES

VARIABLE	RANGE
1. Information	May include but not limited to: 1.1. Routine and complex reports and submissions 1.2. Briefing notes 1.3. Ministerial 1.4. Proposals 1.5. Project plans 1.6. Articles and promotional material
2. Collection Techniques or Methods	2.1 Collection techniques May include but not limited to: 2.1.1 Research 2.1.2 Surveys 2.1.3 Literature search 2.1.4 Interviews 2.1.5 Data bases 2.1.6 Observation 2.2 Collection methods May include but not limited to: 2.2.1 Indexing 2.2.2 linking 2.2.3 Sorting 2.2.4 Comparing 2.2.5 Categorizing 2.2.6 Integrating
3. Analysis	May include but not limited to: 3.1. application of statistical methods 3.2. mathematical calculations 3.3. critical analysis 3.4. problem solving
4. Management Information Systems	May include but not limited to: 4.1. Computers 4.2. Communication channels 4.3. Records management 4.4. Procedures 4.5. Manuals 4.6. Protocol 4.7. Legislation 4.8. Guidelines and awards 4.9. Organizational 4.10. Legal and policy materials

## EVIDENCE GUIDE

1. Critical Aspects of Competency	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> <li>1.1 Identified information needs and sources</li> <li>1.2 Collected and analyzed information</li> <li>1.3 Determined the correct / preventive action</li> <li>1.4 Used management information systems</li> <li>1.5 Record and support information</li> </ul> <p>These aspects may be best assessed using a range of scenarios and what ifs as a stimulus with a walk through forming part of the response. These assessment activities should include a range of problems, including new, unusual and improbable situations that may have happened.</p>
2. Resource Implications	<p>Specific resources for assessment</p> <ul style="list-style-type: none"> <li>2.1 Evidence of competent performance should be obtained by observing an individual in an information management role within the workplace or operational or simulated environment.</li> </ul>
3. Methods of Assessment	<p>Competency in this unit may be assessed through:</p> <ul style="list-style-type: none"> <li>3.1 Written Test</li> <li>3.2 Interview</li> </ul> <p>The unit will be assessed in a holistic manner as is practical and may be integrated with the assessment of other relevant units of competency. Assessment will occur over a range of situations, which will include disruptions to normal, smooth operation. Simulation may be required to allow for timely assessment of parts of this unit of competency. Simulation should be based on the actual workplace and will include walk through of the relevant competency components.</p>
4. Context for Assessment	<ul style="list-style-type: none"> <li>4.1 In all workplaces, it may be appropriate to assess this unit concurrently with relevant teamwork or operation units.</li> </ul>

**UNIT OF COMPETENCY : LEAD IN IMPROVEMENT OF OCCUPATIONAL SAFETY AND HEALTH (OSH) PROGRAMS, POLICIES AND PROCEDURES**

**UNIT CODE : 500311407**

**UNIT DESCRIPTOR :** This unit covers the knowledge, skills and attitudes required to assess Occupational Safety and Health (OSH) practices and programs, recommend OSH program improvement initiatives, and implement recommended improvements on Occupational Safety and Health (OSH) Programs, Procedures and Policies

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1 Assess Occupational Safety and Health (OSH) practices and programs	1.1 <b>OSH practices and programs</b> are reviewed based on workplace policies and procedures 1.2 Appropriate personnel or <b>OSH reference guides</b> are consulted for proper guidance based on workplace policies and procedures 1.3 Current practices and programs are evaluated based on acceptable level of OSH work standards	1.1 OSH practices and programs workplace policies and procedures 1.2 OSH reference guides 1.3 OSH work standards	1.1 Critical thinking skills 1.2 Evaluating skills
2 Recommend OSH program improvement initiatives	2.1 OSH work improvement initiatives are identified that are relevant with the workplace scenario 2.2 OSH program improvement plans are organized based on workplace	2.1 OSH Programs 2.2 OSH work improvement initiatives	2.1 Presentation Skills 2.2 Communication skills 2.3 Collaborating skills 2.4 Critical thinking skills 2.5 Observation skills

	<p>policies and procedures</p> <p>2.3 OSH program improvement plans are presented based on workplace policies and procedures</p>		
<p>3 Implement recommended improvements on Occupational Safety and Health (OSH) Programs, Procedures and Policies</p>	<p>3.1 Approved improvements on OSH work improvement initiatives are communicated based on workplace policies and procedures</p> <p>3.2 Concern personnel are guided in accordance with workplace policies and procedures</p> <p>3.3 Implementation of the approved OSH initiatives are monitored in accordance with workplace policies and procedures</p> <p>3.4 Implementation of approved OSH initiatives are evaluated based on workplace policies and procedures</p>	<p>3.1 Coaching Concepts</p> <p>3.2 OSH work improvement initiatives</p> <p>3.3 Supervisory Concepts</p>	<p>3.1 Monitoring Skills</p> <p>3.2 Evaluation Skills</p> <p>3.3 Auditing Skills</p> <p>3.4 Coaching Skills</p> <p>3.5 Supervisory Skills</p>

## RANGE OF VARIABLES

VARIABLE	RANGE
1. OSH Practices and Programs	May include but not limited to: <ul style="list-style-type: none"> <li>1.1 Planning, implementation and maintenance of manufacturing plants</li> <li>1.2 Work-physiological, psychological, ergonomic and hygienic practices and programs</li> <li>1.3 First aid within the workplace</li> <li>1.4 Safety inspection practices</li> </ul>
2. OSH Reference Guides	May include but not limited to: <ul style="list-style-type: none"> <li>2.1 Occupational Safety and Health Standards Book</li> <li>2.2 OSHA Safety Bulletins and Magazines</li> <li>2.3 Equipment Safety Operating Instructions</li> <li>2.4 Established National Safety Management Books</li> <li>2.5 Credible OSH Web-sites</li> <li>2.6 Safety Solution Guide Books and Handbooks</li> </ul>
3. OSH Work Improvement Initiatives	May include but not limited to: <ul style="list-style-type: none"> <li>3.1 Eliminate the hazard altogether (i.e., get rid of the dangerous machine)</li> <li>3.2 Isolate the hazard from anyone who could be harmed (i.e., keep the machine in a closed room and operate it remotely; barricade an unsafe area off)</li> <li>3.3 Substitute the hazard with a safer alternative (i.e., replace the machine with a safer one)</li> <li>3.4 Use administrative controls to reduce the risk (i.e., train workers how to use equipment safely; train workers about the risks of harassment; issue signage)</li> <li>3.5 Use engineering controls to reduce the risk (i.e., attach guards to the machine to protect users)</li> <li>3.6 Use personal protective equipment (i.e., wear gloves and goggles when using the machine)</li> </ul>

## EVIDENCE GUIDE

1. Critical Aspects of Competency	<b>Assessment requires evidence that the candidate:</b> <ol style="list-style-type: none"> <li>1.1. Consult appropriate personnel or OSH reference guides for proper guidance based on workplace policies and procedures</li> <li>1.2. Evaluate current practices and programs based on acceptable level of OSH work standards</li> <li>1.3. Identify OSH work improvement initiatives that are relevant with the workplace scenario</li> <li>1.4. Present OSH program improvement plans based on workplace policies and procedures</li> <li>1.5. Communicate approved improvements on OSH work program initiatives based on workplace policies and procedures</li> <li>1.6. Monitor implementation of the approved OSH initiatives in accordance with workplace policies and procedures</li> <li>1.7. Evaluate implementation of approved OSH initiatives based on workplace policies and procedures</li> </ol>
2. Resource Implications	<b>The following resources should be provided:</b> <ol style="list-style-type: none"> <li>2.1 Workplace or assessment location</li> <li>2.2 OSH personal records</li> <li>2.3 PPE</li> <li>2.4 Health records</li> </ol>
3. Methods of Assessment	Competency in this unit may be assessed through: <ol style="list-style-type: none"> <li>3.1 Portfolio Assessment</li> <li>3.2 Interview</li> <li>3.3 Case Study/Situation</li> <li>3.4 Observation/Demonstration and oral questioning</li> </ol>
4. Context for Assessment	<ol style="list-style-type: none"> <li>4.1 Competency may be assessed in the work place or in a simulated work place setting</li> </ol>

**UNIT OF COMPETENCY : LEAD TOWARDS IMPROVEMENT OF ENVIRONMENTAL WORK PROGRAMS, POLICIES AND PROCEDURES**

**UNIT CODE : 500311408**

**UNIT DESCRIPTOR :** This unit covers the knowledge, skills and attitudes required in assessing environmental work practices and standards, recommending environmental work improvement initiatives and implementing recommended environmental improvements

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Assess environmental work practices and programs	1.1 Environmental practices and programs are reviewed based on workplace policies 1.2 Appropriate personnel or environmental reference guides are consulted for proper guidance based on workplace policies* 1.3 Current practices and programs are evaluated based on acceptable level of environmental work standards*	1.1 Environmental Practices 1.2 Environmental Reference Guides 1.3 Corrective Action and Follow-up 1.4 Relevant environmental experts 1.5 Re-Training Needs 1.6 Energy and Healthy Habits	1.1 Critical thinking 1.2 Problem solving 1.3 Observation Skills 1.4 Training Delivery Skills
2. Recommend environmental program improvements initiatives	2.1 Environment practices opportunities are Identified that are relevant with the workplace scenario 2.2 Environmental program improvement plans are organized based on workplace	2.1 Environmental Practices and Standards 2.2 Mitigation Requirements	2.1 Presentation Skills 2.2 Critical thinking 2.3 Problem Solving 2.4 Observation Skills 2.5 Training Delivery Skills 2.6 Cost-Benefit Analysis



	<p>policies and procedures*</p> <p>2.3 Environmental program improvement plans are presented based on workplace policies and procedures*</p>		
3. Implement recommended improvements on environmental programs, policies and procedures	<p>3.1 Approved improvements on environmental work program initiatives are promoted based on workplace policies and procedures</p> <p>3.2 Implementation of the approved environmental initiatives are monitored in accordance with workplace policies and procedures</p> <p>3.3 Implementation of approved environmental initiatives are evaluated based on workplace policies and procedures</p>	<p>3.1 Environmental Work Initiatives</p> <p>3.2 Communication Strategies</p> <p>3.3 Environmental inspection and Monitoring Techniques</p> <p>3.4 Notification Requirements</p>	<p>3.1 Inspection Skills</p> <p>3.2 Critical thinking</p> <p>3.3 Problem Solving</p> <p>3.4 Observation Skills</p>

## RANGE OF VARIABLES

VARIABLE	RANGE
1. Environmental Practices and Programs	May include but not limited to: 1.1 Utilization of Energy, Water 1.2 Segregation Practices 1.3 Waste Disposal and Reuse 1.4 Saving Resources 1.5 Waste Collection 1.6 Usage of Hazardous Materials 1.7 Chemical Application 1.8 Equipment Operation 1.9 Dewatering and Discharging 1.10 Surface Disturbance 1.11 Periodic Inspection 1.12 Resource Storage and Handling
2. Environmental Reference Guides	May include but not limited to: 2.1 Air Emission and Ambient Air Quality Guidelines 2.2 Energy Conservation Guidelines 2.3 Wastewater and Ambient Water Quality Guidelines 2.4 Water Conservation Guidelines 2.5 Hazardous Materials Management 2.6 Waste Management 2.7 Noise 2.8 Contaminated Land 2.9 Cultural Conservation Guides
3. Environmental Work Program Initiatives	May include but not limited to: 3.1 Low Energy Lighting 3.2 Water Reduction Initiatives 3.3 Holding Employee Awareness event 3.4 Recycling Waste Materials 3.5 Unplugging power converters overnight 3.6 Tree-Planting 3.7 Wild-life conservation

## EVIDENCE GUIDE

1. Critical Aspects of Competency	<b>Assessment requires evidence that the candidate:</b> <ul style="list-style-type: none"> <li>1.1 Consulted appropriate personnel or environmental reference guides for proper guidance based on workplace policies*</li> <li>1.2 Evaluated current practices and standards based acceptable level of environmental work standards</li> <li>1.3 Organized environmental standard improvement plans based on workplace policies and procedures</li> <li>1.4 Presented environmental standard improvement plans based on workplace policies and procedures*</li> <li>1.5 Promoted approved environmental work initiatives based on workplace policies and procedures</li> <li>1.6 Evaluated the implementation of approved environmental improvements based on workplace policies and procedures</li> </ul>
2. Resource Implications	<b>The following resources should be provided:</b> <ul style="list-style-type: none"> <li>2.1 Workplace/Assessment location</li> <li>2.2 Legislation, policies, procedures, protocols and local ordinances relating to environmental protection</li> <li>2.3 Case studies/scenarios relating to environmental protection</li> </ul>
3. Methods of Assessment	Competency in this unit may be assessed through: <ul style="list-style-type: none"> <li>3.1 Written/ Oral Examination</li> <li>3.2 Interview/Third Party Reports</li> <li>3.3 Portfolio (citations/awards from GOs and NGOs, certificate of training – local and abroad)</li> <li>3.4 Simulations and role-plays</li> </ul>
4. Context for Assessment	4.1 Competency may be assessed in the actual workplace or at the designated TESDA Center.

**UNIT OF COMPETENCY : SUSTAIN ENTREPRENEURIAL SKILLS**

**UNIT CODE : 500311409**

**UNIT DESCRIPTOR :** This unit covers the outcomes required to update and continue one's professional development along entrepreneurship, including applying such growth in skills toward expanding the enterprise and developing its work force.

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Enhance one's business skills	1.1 <b><i>Entrepreneurial skills</i></b> development needs are identified and responded to promptly. 1.2 Market trends are monitored, anticipated and taken advantage of where feasible. 1.3 New technologies, products and processes are included/utilized where advantageous to the enterprise. 1.4 Constant dialog/linkages with other entrepreneurs/peers and stakeholders are maintained 1.5 Circulation and participation in business fora, meetings, conventions and exhibits are maintained.	1.1 Business models and strategies 1.2 Types and categories of businesses 1.3 Business internal controls 1.4 Market Trends 1.5 Relevant national and local legislation and regulations 1.6 Basic quality control and assurance concepts	1.1 Basic bookkeeping/accounting skills 1.2 Communication skills 1.3 Building relations with customer and employees 1.4 Building competitive advantage of the enterprise 1.5 Networking and Linkaging skills

2. Manage entrepreneurial practices	<p>2.1 Ideas and comments for improvements are sought from workers and clients.</p> <p>2.2 Staff/workers are encouraged and supported in their skills development and enhancement.</p> <p>2.3 A culture of <b>continuous improvement</b> is fostered within the enterprise.</p> <p>2.4 Innovations on the existing lines of products and services are encouraged</p>	<p>2.1 Public relations concepts</p> <p>2.2 Basic product promotion strategies</p> <p>2.3 Basic market and feasibility studies</p> <p>2.4 Basic business ethics</p>	<p>2.1 Building customer relations</p> <p>2.2 Individual marketing skills</p> <p>2.3 Using basic advertising (posters/ tarpaulins, flyers, social media, etc.)</p>
3. Expand markets and clientele	<p>3.1 Enterprise is built up and sustained through judicious control of cash flows.</p> <p>3.2 Profitability of enterprise is ensured through appropriate internal controls.</p> <p>3.3 Unnecessary or lower-priority expenses and purchases are avoided.</p> <p>3.4 New markets and clients are identified based on current market trends</p>	<p>3.1 Basic cost benefit analysis</p> <p>3.2 Basic financial management</p> <p>3.3 Basic financial accounting</p> <p>3.4 Business internal controls</p>	<p>3.1 Setting business priorities and strategies</p> <p>3.2 Interpreting basic financial statements</p> <p>3.3 Preparing business plans</p>

## RANGE OF VARIABLES

VARIABLE	RANGE
1. Entrepreneurial Skills	May include but not limited to: 1.1 Financial management skills 1.2 People management skills 1.3 Operations management skills 1.4 Business acumen
2. Business Operations	May include but not limited to: 2.1 Purchasing 2.2 Accounting/Administrative work 2.3 Production/Operations/Sales
3. Internal Controls	May include but not limited to: 3.1 Accounting systems 3.2 Financial statements/reports 3.3 Cash management 3.4 Managing property, plant and equipment
4. Continuous Improvement	May include but not limited to: 4.1 Quality management systems (PDCA, ISO 9001, TQM, Six-Sigma, etc.) 4.2 Client feedback systems 4.3 Quality assurance/Quality control systems

## EVIDENCE GUIDE

1. Critical Aspects of Competency	<b>Assessment requires evidence that the candidate:</b> 1.1 Demonstrated enhancement of one's entrepreneurial skills through performance of business, supervisor evaluation, worker and client testimony
2. Resource Implications	<b>The following resources should be provided:</b> 2.1 Interview guide for entrepreneurs, enterprise workers and third parties 2.2 Materials and location relevant to the proposed activity and tasks
3. Methods of Assessment	<b>Competency in this unit may be assessed through:</b> 3.1 Written report 3.2 Written examination 3.3 Demonstration/observation with oral questioning 3.4 Portfolio assessment with interview 3.5 Third-party report
4. Context of Assessment	4.1 Competency may be assessed in workplace or in a simulated workplace setting 4.2 Assessment shall be observed while tasks are being undertaken whether individually or in-group

## COMMON COMPETENCIES

**UNIT TITLE** : **APPLY QUALITY STANDARDS**

**UNIT CODE** : **ICT315202**

**UNIT DESCRIPTOR** : This unit covers the knowledge, skills, attitudes and values needed to apply quality standards in the workplace. The unit also includes the application of relevant safety procedures and regulations, organization procedures and customer requirements.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Assess quality of received materials	1.1. Work instruction is obtained and work is carried out in accordance with standard operating procedures. 1.2. Received <b>materials</b> are checked against workplace standards and specifications. 1.3. Faulty materials related to work are identified and isolated. 1.4. <b>Faults</b> and any identified causes are recorded and/or reported to the supervisor concerned in accordance with workplace procedures. 1.5. Faulty materials are replaced in accordance with workplace procedures.	1.1. Relevant production processes, materials and products 1.2. Characteristics of materials, software and hardware used in production processes 1.3. Quality checking procedures 1.4. Quality Workplace procedures 1.5. Identification of faulty materials related to work	1.1. Reading skills required to interpret work instruction 1.2. Critical thinking 1.3. Interpreting work instructions
2. Assess own work	2.1 <b>Documentation</b> relative to quality within the	2.1. Safety and environmental aspects of	2.1. Carry out work in accordance with OHS

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	<p>company is identified and used.</p> <p>2.2 Completed work is checked against workplace standards relevant to the task undertaken.</p> <p>2.3 <b>Errors</b> are identified and isolated.</p> <p>2.4 Information on the quality and other indicators of production performance are recorded in accordance with workplace procedures.</p> <p>2.5 In cases of deviations from specific <b>quality standards</b>, causes are documented and reported in accordance with the workplace's standards operating procedures.</p>	<p>production processes</p> <p>2.2. Fault identification and reporting</p> <p>2.3. Workplace procedure in documenting completed work</p> <p>2.4. Workplace Quality Indicators</p>	<p>policies and procedures</p>
3. Engage in quality improvement	<p>3.1 Process improvement procedures are participated in relative to workplace assignment.</p> <p>3.2 Work is carried out in accordance with process improvement procedures.</p>	<p>3.1. Quality improvement processes</p> <p>3.2. Company customers defined</p>	<p>3.1. Solution providing and decision-making</p> <p>3.2. Practice company process improvement procedure</p>



ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	3.3 Performance of operation or quality of product of service to ensure <b>customer</b> satisfaction is monitored.		

## RANGE OF VARIABLES

VARIABLE	RANGE
1 Materials	1.1 Materials may include but not limited to: 1.1.1. Manuals 1.1.2. Job orders 1.1.3. Instructional videos
2 Faults	2.1 Faults may include but not limited to: 2.1.1. Materials not to specification 2.1.2. Materials contain incorrect/outdated information 2.1.3. Hardware defects 2.1.4. Materials that do not conform with any regulatory agencies
3 Documentation	3.1 Organization work procedures 3.2 Manufacturer's instruction manual 3.3 Customer requirements 3.4 Forms
4 Errors	4.1 Errors may be related but not limited to the following: 4.1.1. Deviation from the requirements of the Client 4.1.2. Deviation from the requirement of the organization
5 Quality standards	5.1 Quality standards may be related but not limited to the following: 5.1.1. Materials 5.1.2. Hardware 5.1.3. Final product 5.1.4. Production processes 5.1.5. Customer service
6 Customer	6.1 Co-worker 6.2 Supplier/Vendor 6.3 Client 6.4 Organization receiving the product or service

## EVIDENCE GUIDE

1	Critical aspect of competency	<b>Assessment requires evidence that candidate:</b> <ul style="list-style-type: none"> <li>1.1 Carried out work in accordance with the company's standard operating procedures</li> <li>1.2 Performed task according to specifications</li> <li>1.3 Reported defects detected in accordance with standard operating procedures</li> <li>1.4 Carried out work in accordance with the process improvement procedures</li> </ul>
2	Method of assessment	<b>The assessor may select two (2) of the following assessment methods to objectively assess the candidate:</b> <ul style="list-style-type: none"> <li>2.1 Observation</li> <li>2.2 Questioning</li> <li>2.3 Practical demonstration</li> </ul>
3	Resource implication	<ul style="list-style-type: none"> <li>3.1 Materials, software and hardware to be used in a real or simulated situation</li> </ul>
4	Context of Assessment	<ul style="list-style-type: none"> <li>4.1 Assessment may be conducted in the workplace or in a simulated environment</li> </ul>

**UNIT TITLE : PERFORM COMPUTER OPERATIONS**

**UNIT CODE : ICT311203**

**UNIT DESCRIPTOR :** This unit covers the knowledge, skills, (and) attitudes and values needed to perform computer operations which include inputting, accessing, producing and transferring data using the appropriate hardware and software

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Plan and prepare for task to be undertaken	1.1. Requirements of task are determined 1.2. Appropriate <b>hardware</b> and <b>software</b> are selected according to task assigned and required outcome 1.3. Task is planned to ensure <b>OH&amp;S guidelines</b> and procedures are followed	1.1. Main types of computers and basic features of different operating systems 1.2. Main parts of a computer 1.3. Information on hardware and software 1.4. Data security guidelines	1.1. Reading and comprehension skills required to interpret work instruction and to interpret basic user manuals. 1.2. Communication skills to identify lines of communication, request advice, follow instructions and receive feedback. 1.3. Interpreting user manuals and security guidelines
2. Input data into computer	2.1. Data are entered into the computer using appropriate program/application in accordance with company procedures 2.2. Accuracy of information is checked and information is saved in accordance with standard operating procedures 2.3. Inputted data are stored in <b>storage media</b> according to requirements	2.1. Basic ergonomics of keyboard and computer user 2.2. Storage devices and basic categories of memory 2.3. Relevant types of software	2.1. Technology skills to use equipment safely including keyboard skills. 2.2. Entering data

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	2.4. Work is performed within <b><i>ergonomic guidelines</i></b>		
3. Access information using computer	3.1. Correct program/application is selected based on job requirements 3.2. Program/application containing the information required is accessed according to company procedures 3.3. <b><i>Desktop icons</i></b> are correctly selected, opened and closed for navigation purposes 3.4. Keyboard techniques are carried out in line with OH&S requirements for safe use of keyboards	3.1. General security, privacy legislation and copyright 3.2. Productivity Application 3.3. Business Application	3.1. Accessing information 3.2. Searching and browsing files and data
4. Produce/ output data using computer system	4.1. Entered data are processed using appropriate software commands 4.2. Data printed out as required using computer hardware/peripheral devices in accordance with standard operating procedures 4.3. Files, data are transferred between	4.1. Computer application in printing, scanning and sending facsimile 4.2. Types and function of computer peripheral devices	4.1. Computer data processing 4.2. Printing of data 4.3. Transferring files and data

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	compatible systems using computer software, hardware/ peripheral devices in accordance with standard operating procedures		
5. Maintain computer equipment and systems	5.1. Systems for cleaning, minor <b><i>maintenance</i></b> and replacement of consumables are implemented 5.2. Procedures for ensuring security of data, including regular back-ups and virus checks are implemented in accordance with standard operating procedures 5.3. Basic file maintenance procedures are implemented in line with the standard operating procedures	5.1 Computer equipment/system basic maintenance procedures 5.2 Viruses 5.3 OH&S principles and responsibilities 5.4 Calculating computer capacity 5.5 System Software 5.6 Basic file maintenance procedures	5.1 Removing computer viruses from infected machines 5.2 Making backup files

## RANGE OF VARIABLES

VARIABLE	RANGE
1. Hardware and peripheral devices	1.1. Personal computers 1.2. Networked systems 1.3. Communication equipment 1.4. Printers 1.5. Scanners 1.6. Keyboard 1.7. Mouse
2. Software	Software includes the following but not limited to: 2.1. Word processing packages 2.2. Data base packages 2.3. Internet 2.4. Spreadsheets
3. OH & S guidelines	3.1. OHS guidelines 3.2. Enterprise procedures
4. Storage media	Storage media include the following but not limited to: 4.1. diskettes 4.2. CDs 4.3. zip disks 4.4. hard disk drives, local and remote
5. Ergonomic guidelines	5.1. Types of equipment used 5.2. Appropriate furniture 5.3. Seating posture 5.4. Lifting posture 5.5. Visual display unit screen brightness
6. Desktop icons	Icons include the following but not limited to: 6.1. directories/folders 6.2. files 6.3. network devices 6.4. recycle bin
7. Maintenance	7.1. Creating more space in the hard disk 7.2. Reviewing programs 7.3. Deleting unwanted files 7.4. Backing up files 7.5. Checking hard drive for errors 7.6. Using up to date security solution programs 7.7. Cleaning dust from internal and external surfaces

## EVIDENCE GUIDE

1. Critical aspect of competency	<b>Assessment requires evidence that the candidate:</b> 1.1. Selected and used hardware components correctly and according to the task requirement 1.2. Identified and explain the functions of both hardware and software used, their general features and capabilities 1.3. Produced accurate and complete data in accordance with the requirements 1.4. Used appropriate devices and procedures to transfer files/data accurately 1.5. Maintained computer system
2. Method of assessment	2.1. <b>The assessor may select two of the following assessment methods to objectively assess the candidate:</b> 2.1.1. Observation 2.1.2. Questioning 2.1.3. Practical demonstration
3. Resource implication	3.1. Computer hardware with peripherals 3.2. Appropriate software
4. Context of Assessment	4.1. Assessment may be conducted in the workplace or in a simulated work environment



## UNIT OF COMPETENCY: ENSURE COMPLIANCE WITH DATA PRIVACY AND ETHICS

UNIT CODE: CS-ICT252101

**UNIT DESCRIPTOR:** This unit covers the outcomes required to ensure data privacy, ethical handling, and the integrity of data throughout its lifecycle. It includes maintaining compliance with data privacy regulations, applying ethical guidelines, and implementing practices to safeguard data accuracy and reliability across various projects.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Comply with data privacy regulations	1.1. <b>Data privacy regulations</b> relevant to data handling are identified and followed based on industry standards 1.2. Data handling practices are ensured with Data privacy regulations 1.3. Secure storage practices are implemented to protect personal data based on industry standards	1.1. RA 10173 (Data Privacy Act of 2012). 1.2. Secure data storage protocols, including encryption and access control 1.3 Data Privacy Regulations	1.1. Identifying applicable data privacy regulations during annotation and labeling. 1.2. Following secure data handling procedures 1.3. Storing personal data in compliance with privacy laws
2. Apply ethical standards in data handling	2.1. <b>Ethical guidelines</b> are applied to avoid bias and promote fairness in data handling processes 2.2. Transparency in data usage is ensured through proper documentation of <b>data handling practices</b> . 2.3. Consent for data usage is obtained and documented following <b>ethical standards</b>	2.1. Knowledge of AI ethics principles, such as fairness, transparency, and accountability 2.2. RA 10175 (Cybercrime Prevention Act of 2012) 2.3. Importance of preventing bias in datasets and ensuring transparent practices	2.1. Applying ethical standards during annotation and labeling to avoid bias 2.2. Documenting data handling and usage practices 2.3. Obtaining and recording user consent for data usage

## RANGE OF VARIABLES

VARIABLE	RANGE
1. Data privacy regulations	May include but not limited to: 1.1. RA 10173 (Data Privacy Act of 2012) 1.2. Organizational policies on data privacy
2. Ethical guidelines	May include but not limited to: 2.1. Guidelines to prevent bias in data annotation 2.2. Ethical AI principles 2.3. Transparency and accountability standards
3. Data handling practices	May include but not limited to: 3.1. Secure data transmission 3.2. Data anonymization 3.3. Data encryption
4. Ethical standards	May include but not limited to: 4.1. Fairness 4.2. Avoiding bias 4.3. Transparency 4.4. Accountability

## EVIDENCE GUIDE

1. Critical aspects of competency	<b>Assessment requires evidence that the candidate:</b> 1.1 Complied with data privacy regulations 1.2 Applied ethical standards in data handling
2. Method of assessment	<b>The assessor may select from the following assessment methods but not limited to:</b> 2.1 Observation 2.2 Questioning 2.3 Practical demonstration
3. Resource implication	3.1 Access to relevant privacy regulations and ethical guidelines. 3.2 Documentation tools for compliance and tracking consent. 3.3 AI datasets requiring secure handling and compliance with privacy laws
4. Context of Assessment	4.1 Assessment may be conducted in a workplace or simulated environment.

## CORE COMPETENCIES

**UNIT OF COMPETENCY** : **IMPLEMENT DATA GOVERNANCE PRINCIPLES**

**UNIT CODE** : **CS-ICT252103**

**UNIT DESCRIPTOR** : This unit covers the outcomes required to implement data governance principles, focusing on compliance with relevant laws, data privacy, security frameworks, and maintaining data quality and accountability throughout the data lifecycle.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	Required Knowledge	Required Skills
1 Identify data governance principles	<p>1.1. <b>Data governance principles</b> are identified based on organizational goals and <b>regulatory requirements</b></p> <p>1.2. Applicable <b>data governance frameworks</b> are reviewed to ensure alignment with industry standards</p> <p>1.3. <b>Regulatory requirements</b> are considered to ensure data privacy and protection</p>	<p>1.1. RA 10173 (Data Privacy Act of 2012)</p> <p>1.2. RA 10175 (Cybercrime Prevention Act of 2012)</p> <p>1.3. RA 8293 (Intellectual Property Code of the Philippines)</p> <p>1.4. Knowledge of existing data governance frameworks</p> <p>1.5. Familiarity with global data privacy regulations</p> <p>1.6. Knowledge of industry-specific compliance standards</p>	<p>1.1. Identifying relevant governance principles</p> <p>1.2. Analytical and problem-solving skills</p> <p>1.3. Aligning practices with governance frameworks</p> <p>1.4. Compliance enforcement skills</p> <p>1.5. Documentation skills</p>
2 Implement data governance policies	<p>2.1. <b>Data governance policies</b> are developed to manage data access, security,</p>	<p>2.1 Policy development processes for data management</p>	<p>2.2 Policy writing and development skills</p> <p>2.3 Data security</p>

	<p>and quality</p> <p>2.2. Policies are ensured in compliance with data privacy and security through the use of access control and <b>data protection mechanisms</b></p> <p>2.3. Data governance policies are regularly reviewed and updated to reflect organizational needs and regulatory changes</p>	<p>2.2. Role-based access control (RBAC)</p> <p>2.3. Role-based access control (RBAC)</p> <p>2.4. Encryption techniques</p> <p>2.5. Data masking and anonymization methods</p> <p>2.6. Data classification techniques</p> <p>2.7. Policy review and update procedures</p> <p>2.8. Change management practices</p>	<p>implementation skills</p> <p>2.4 Implementing access control mechanisms</p> <p>2.5 Problem-solving skills</p> <p>2.6 Change management skills</p> <p>2.7 Adaptability</p> <p>2.8 Compliance skills in understanding legal and regulatory landscapes</p>
3 Monitor and enforce data governance practices	<p>3.1. Data governance practices are monitored to ensure compliance with <b>regulatory requirements</b> and organizational standards</p> <p>3.2. Stakeholders are regularly engaged to ensure governance practices support data quality and security goals.</p> <p>3.3. Data governance violations and risks are identified and resolved using appropriate <b>risk management strategies</b></p>	<p>3.1. Audit and monitoring processes</p> <p>3.2. Governance metrics and reporting</p> <p>3.3. Stakeholder engagement techniques</p> <p>3.4. Communication strategies for internal and external stakeholders</p> <p>3.5. Risk assessment frameworks (ISO 31000)</p> <p>3.6. ISO/IEC 27001 (Information Security Management)</p> <p>3.7. Threat</p>	<p>3.1. Monitoring and auditing data governance practices, policies, and procedures to ensure compliance with regulations and standards.</p> <p>3.2. Engaging with stakeholders to enhance data governance practices and ensure alignment with data goals.</p> <p>3.3. Implementing risk management strategies to</p>

		modeling and incident response planning	address governance violations and mitigate risks.
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## RANGE OF VARIABLES

VARIABLE	RANGE
1. Data governance principles	May include but not limited to: 1.1. Data quality 1.2. Data security 1.3. Data privacy 1.4. Data lifecycle management 1.5. Data architecture 1.6. Data storage and operations 1.7. Data integration and interoperability 1.8. Data warehousing and business intelligence 1.9. Metadata management 1.10. Data modeling and design 1.11. Data governance frameworks and policies
2. Data governance frameworks	May include but not limited to: 2.1. DAMA-DMBOK (Data Management Body of Knowledge) 2.2. ISO/IEC 38500 2.3. COBIT
3. Regulatory requirements	May include but not limited to: 3.1. RA 10173 (Data Privacy Act of 2012) 3.2. RA 10175 (Cybercrime Prevention Act of 2012) 3.3. RA 8293 (Intellectual Property Code of the Philippines) 3.4. Global data privacy regulations (e.g., GDPR, CCPA) 3.5. Industry-specific standards (e.g., OECD Privacy Framework, APEC CBPR, ASEAN Digital Data Governance)
4. Data protection mechanisms	May include but not limited to: 4.1. Encryption 4.2. Access control 4.3. Data masking 4.4. Data anonymization
5. Risk management strategies	May include but not limited to: 5.1. Risk Assessments 5.2. ISO 31000 5.3. ISO/IEC 27001 5.4. ISO/IEC 42001 5.5. Threat Modeling 5.6. Incident Response Planning
6. Stakeholder engagement	May include but not limited to: 6.1 Internal stakeholders

VARIABLE	RANGE
	6.2 External regulators 6.3 Data governance committees

## EVIDENCE GUIDE

1 Critical aspects of competency	<b>Assessment requires evidence that the candidate:</b> 1.1. Identified and applied relevant data governance principles and frameworks 1.2. Developed and implemented data governance policies to ensure data quality, security, and privacy 1.3. Monitored data governance practices to ensure compliance and risk management
2 Method of assessment	<b>The assessor may select from the following assessment methods:</b> 2.1. Observation 2.2. Practical demonstration 2.3. Interviews or questioning 2.4. Review of documentation or reports prepared by the candidate 2.5. Written or oral examinations
3 Resource implication	<b>Resources should include:</b> 3.1. Access to data governance frameworks and tools 3.2. Documentation templates for data governance policies 3.3. Compliance standards and risk management resources
4 Context of Assessment	Assessment may be conducted in the workplace or in a simulated environment where data governance principles can be applied to ensure compliance and security.



**UNIT OF COMPETENCY : IMPLEMENT DATA GOVERNANCE TOOLS**

**UNIT CODE : CS-ICT252104**

**UNIT DESCRIPTOR :** This unit covers the outcomes required in implementing data governance tools to manage and enforce governance policies.

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Select appropriate data governance tools	1.1. <b>Data governance tools</b> are selected based on organizational needs and <b>data governance policies</b> 1.2. <b>Data governance tools</b> are evaluated for compatibility with existing <b>data management systems</b> 1.3. Tools are mapped to data <b>governance policies</b> for enforcement and monitoring	1.1. Knowledge of different types of data governance tools and their functions. 1.2. Understanding of data management systems and their integration capabilities with governance tools. 1.3. Familiarity with governance policy mapping processes for effective enforcement 1.4. Awareness of how different tools support privacy, access, and security policies.	1.1. Selecting data governance tools that fit organizational requirements and policies. 1.2. Ensuring the compatibility of governance tools with existing data systems. 1.3. Mapping organizational governance policies to tool functionalities for enforcement.
2. Apply data governance tools	2.1. <b>Data governance tools</b> are configured to manage data	2.1. Knowledge of configuring governance tools to handle data access	2.1 Configuring governance tools to manage access control,

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	<p>access, security, and quality according to policies</p> <p>2.2. <b>Data governance tools</b> are implemented to support compliance monitoring and detect policy violations</p> <p>2.3. <b>Testing</b> is conducted to ensure tools are scalable and adaptable for future organizational needs</p>	<p>and security</p> <p>2.2. Understanding of how governance tools monitor compliance and detect violations</p> <p>2.3. Techniques for testing tool scalability and adaptability</p> <p>2.4. Familiarity with performance evaluation of governance tools</p> <p>2.5. Knowledge in assessing the quality of data managed by the tools, including accuracy, completeness, consistency, validity, and timeliness</p>	<p>security, and data quality</p> <p>2.6. Implementing governance tools for continuous compliance monitoring and violation detection</p> <p>2.7. Conducting scalability and performance tests to ensure tools meet future demands</p>
3. Monitor and optimize use of data governance tools	<p>3.1. <b>Data governance tools</b> are reviewed regularly to ensure efficiency and compliance</p> <p>3.2. <b>Stakeholder feedback</b> is gathered to improve tool functionality and support</p>	<p>3.1. Knowledge of reviewing governance tool performance to ensure efficiency and compliance</p> <p>3.2. Techniques for gathering and incorporating stakeholder feedback in tool optimization</p> <p>3.3. Awareness of</p>	<p>3.1. Monitoring governance tool performance and making adjustments for optimal efficiency and compliance</p> <p>3.2. Incorporating feedback from stakeholders to enhance the functionality of</p>

ELEMENT	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	governance policy goals 3.3. <b>Data governance tools</b> are updated to reflect new regulations and emerging governance practices	regulatory changes and governance trends impacting tool updates	governance tools 3.3. Updating tools and processes in response to regulatory changes and evolving governance practices

## RANGE OF VARIABLES

VARIABLE	RANGE
1. Data governance tools	May include but not limited to: 1.1. Metadata management tools 1.2. Data cataloging tools 1.3. Data lineage tools 1.4. Access control tools 1.5. Data quality assessment tools 1.6. Data visualization tools 1.7. Data masking and anonymization tools
2. Data management systems	May include but not limited to: 2.1. Data warehouses 2.2. Data lakes 2.3. Cloud storage solutions 2.4. Data swamps 2.5. Distributed file systems
3. Data governance policies	May include but not limited to: 3.1. Data access policies 3.2. Data privacy policies 3.3. Data quality standards 3.4. Data ethics policies 3.5. Data retention and disposal policies
4. Stakeholder Feedback	May include but not limited to: 4.1. Internal stakeholders 4.2. External auditors 4.3. Data governance committees
5. Testing	May include but not limited to: 5.1. Scalability testing 5.2. Performance evaluation 5.3. Load testing

## EVIDENCE GUIDE

1 Critical aspects of competency	<b>Assessment requires evidence that the candidate:</b> <ul style="list-style-type: none"> <li>1.1. Selected and implemented appropriate data governance tools aligned with organizational needs</li> <li>1.2. Configured tools to support data access control, security, and compliance monitoring</li> <li>1.3. Monitored tool usage and optimized governance processes based on stakeholder feedback and regulatory changes</li> </ul>
2 Method of assessment	<b>The assessor may select from the following assessment methods:</b> <ul style="list-style-type: none"> <li>2.1. Observation</li> <li>2.2. Practical demonstration</li> <li>2.3. Interviews or questioning</li> <li>2.4. Review of documentation or reports prepared by the candidate</li> <li>2.5. Written or oral examinations</li> </ul>
3 Resource implication	<b>Resources should include:</b> <ul style="list-style-type: none"> <li>3.1. Access to data governance tools and systems</li> <li>3.2. Documentation templates for governance policy mapping</li> <li>3.3. Testing and monitoring resources for tool performance</li> </ul>
4 Context of Assessment	Assessment may be conducted in the workplace or in a simulated environment where data governance tools can be implemented to manage and enforce policies.

**UNIT OF COMPETENCY** : **ANALYZE ETHICAL DATA MANAGEMENT PRACTICES**

**UNIT CODE** : **CS-ICT252105**

**UNIT DESCRIPTOR** : This unit covers the outcomes required in analyzing ethical data management practices and their role in AI or non-AI governance.

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1 Identify ethical principles in data management	1.1. <b><i>Ethical data management principles</i></b> are identified based on AI governance frameworks and regulatory standards 1.2. The impact of <b><i>unethical practices</i></b> on AI systems is analyzed and documented 1.3. Relevant <b><i>regulations and standards</i></b> guiding ethical data practices are reviewed and integrated into governance policies	1.1. Knowledge of core ethical principles in data management (e.g., transparency, fairness, accountability) 1.2. Understanding of the consequences of unethical data practices on AI models and decision-making 1.3. Familiarity with ethical data management regulations and industry standards	1.1. Identifying and applying ethical principles relevant to AI data governance 1.2. Analyzing how unethical data handling affects AI outcomes and system trustworthiness 1.3. Integrating ethical regulations into data governance practices
2. Analyze ethical risks in AI data management	2.1. Potential <b><i>ethical risks</i></b> are identified in the data collection, processing, and usage stages of the AI lifecycle 2.2. <b><i>Mitigation</i></b>	2.1. Understanding of ethical risks such as bias, privacy breaches, and unfair decision-making in AI 2.2. Knowledge of	2.1. Identifying ethical risks in AI data management processes and evaluating their potential impact.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	<p><b>strategies</b> for <b>ethical risks</b> are proposed and evaluated for effectiveness</p> <p>2.3. Ongoing ethical compliance is monitored throughout the AI data lifecycle</p>	<p>mitigation strategies for managing ethical risks in data governance</p> <p>2.3. Understanding of compliance monitoring methods for ethical data governance</p>	<p>2.2. Developing and implementing mitigation strategies to address ethical risks in AI data management.</p> <p>2.3. Monitoring compliance with ethical standards in data collection, usage, and governance.</p>
3. Implement ethical data management best practices	<p>3.1. <b>Ethical best practices</b> for ethical data management are implemented to ensure AI fairness, privacy, and security</p> <p>3.2. <b>Stakeholders</b> are engaged to promote ethical data usage and ensure transparency in AI systems</p> <p>3.3. <b>Ethical tools and frameworks</b> supporting ethical data management are integrated into AI governance policies</p>	<p>3.1. Knowledge of best practices in ethical data management (e.g., fairness in AI, data privacy, data security)</p> <p>3.2. Understanding of stakeholder engagement strategies in ethical AI data management</p> <p>3.3. Familiarity with tools and frameworks for supporting ethical data management</p>	<p>3.1. Implementing ethical best practices in managing data to support AI governance</p> <p>3.2. Engaging stakeholders to promote ethical practices and increase transparency in AI systems</p> <p>3.3. Incorporating ethical tools and frameworks into organizational AI governance structures</p>

## RANGE OF VARIABLES

VARIABLE	RANGE
1. Ethical data management principles	May include but not limited to: 1.1. Fairness 1.2. Transparency 1.3. Accountability 1.4. Data privacy
2. Unethical practices	May include but not limited to: 2.1. Data bias 2.2. Privacy breaches 2.3. Unfair decision-making 2.4. Data manipulation
3. Regulations and standards	May include but not limited to: 3.1. GDPR 3.2. CCPA 3.3. Industry standards for ethical AI (e.g., IEEE, ISO)
4. Ethical risks	May include but not limited to: 4.1. Data bias 4.2. Discrimination 4.3. Security risks 4.4. Unintended AI outcomes
5. Mitigation strategies	May include but not limited to: 5.1 Bias detection and removal 5.2 Privacy-enhancing technologies (e.g., encryption, anonymization) 5.3 Fair AI algorithms
6. Ethical tools and frameworks	May include but not limited to: 6.1. AI fairness tools 6.2. Data privacy management tools 6.3. Ethical impact assessments
7. Ethical best practices	May include but not limited to: 7.1. Fairness in AI 7.2. Transparency and accountability 7.3. Security in data handling
8. Stakeholders	May include but not limited to: 8.1. Internal stakeholder 8.2. External auditors 8.3. Data governance committees



## EVIDENCE GUIDE

1. Critical aspects of competency	<b>Assessment requires evidence that the candidate:</b> <ul style="list-style-type: none"> <li>1.1. Analyzed and integrated relevant ethical principles into AI data governance policies</li> <li>1.2. Identified and mitigated ethical risks associated with data collection, processing, and AI usage</li> <li>1.3. Implemented best practices for ethical data management and engaged stakeholders to promote transparency and fairness</li> </ul>
2. Method of assessment	<b>The assessor may select from the following assessment methods:</b> <ul style="list-style-type: none"> <li>2.1. Observation</li> <li>2.2. Practical demonstration</li> <li>2.3. Interviews or questioning</li> <li>2.4. Review of documentation or reports prepared by the candidate</li> <li>2.5. Written or oral examinations</li> </ul>
3. Resource implication	<b>Resources should include:</b> <ul style="list-style-type: none"> <li>3.1. Access to ethical data management tools and frameworks</li> <li>3.2. Documentation templates for ethical policies and risk mitigation strategies</li> <li>3.3. Regulatory guidelines and standards</li> </ul>
4. Context of Assessment	Assessment may be conducted in the workplace or in a simulated environment where ethical data management practices can be analyzed and implemented to support AI governance.

## GLOSSARY OF TERMS

<b>Access Control</b>	The process of restricting access to data or systems based on user permissions, roles, or policies to ensure data security and privacy.
<b>Accountability</b>	The obligation of organizations and individuals to take responsibility for their actions regarding data management and to be answerable to stakeholders for compliance with established data governance practices.
<b>Audit Trail</b>	A record of all changes, accesses, and interactions with data systems, ensuring accountability and transparency in data handling practices.
<b>Data Lifecycle</b>	The various stages that data goes through, from its creation and initial storage to its archiving and eventual deletion, including how it's managed and used throughout these stages.
<b>Data Quality</b>	The measure of data's accuracy, completeness, reliability, and relevance for its intended use, critical for effective decision-making and governance.
<b>Data Privacy</b>	The protection of personal data from unauthorized access and misuse, ensuring compliance with legal frameworks like GDPR and CCPA.
<b>Governance Framework</b>	A set of standards, policies, and processes designed to ensure that an organization's data is managed consistently, securely, and in compliance with regulatory and ethical guidelines.
<b>Incident Response</b>	The procedures and protocols followed to address and manage data breaches or security incidents, ensuring quick mitigation and compliance with reporting requirements.
<b>Metadata Management</b>	The process of managing data about other data, including how data is stored, used, and transformed, which supports effective data governance and quality assurance.
<b>Risk Assessment</b>	The process of identifying, analyzing, and evaluating potential risks related to data management and governance, helping organizations mitigate those risks effectively.

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