National Competency Standards Level-4
For
"Tunnel Farming, Green House & Agribusiness"

(Off-season Vegetable production & Agribusiness)

National Vocational and Technical Training Commission (NAVTTC), Government of Pakistan

ACKNOWLEDGEMENT

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1. Introduction

Agriculture is considered as the backbone of Pakistan's economy, which accounts for about 18.9% of Pakistan's GDP and employs about 42.3% of the labor force. Where agriculture is considered as the largest sector that supports GDP, horticulture sector (fruit and vegetables) contributes only 11 % to the total value addition. Pakistan exports vegetables to Afghanistan, Malaysia, Russia, Bahrain, UAE and Sri Lanka but not impressive figures. Despite favorable climatic and cropping condition Pakistan has repeatedly seen shortages of different vegetables like onions or tomatoes in the market that caused price rise and difficulty for many people. More than 35 varieties of vegetables are growing in different climatic zones in different provinces of Pakistan. Many Surveys reports different reasons for low production of vegetables in Pakistan. The government in history executed various projects to urge the farmer community for cultivation of vegetables but due to lack of technical skills and limited resources, farmers have not adopted this sector in a very impressive way.

Vegetable production can be heightening by improving cultivation techniques and enhancing profitability for farmers. Off-season vegetable production is also an important technique to enhance profits and meet market demand. Production of vegetables out of normal season through different techniques is called "off-season vegetable". Growing Off-season vegetables not only provides fresh vegetables to the daily dietary meal of the consumers but also helps farmers to get abnormal profit as supply in the off-season is always lower than that of its demand.

Therefore, the importance of knowledge related to off-season vegetable production through the latest techniques makes this diploma very valuable not only in agriculture but also in its usefulness in all areas of our daily life. Market demands for qualified workers are therefore a need for time and can only be addressed by developing specific skills standards in partnership with all stakeholders and industry experts. Recognizing this fact, the National Vocational and Technical Training Commission (NAVTTC) has developed the National Vocational Qualifications Framework (NVQF) for tunnel farming, Greenhouse and agri. Business (off season vegetable production) qualifications. These competency standards have been developed by the Qualification Development Committee (QDC) and validated by the Qualification Validation Committee (QVC) with representation from the country's leading departments (IAGS, PU Lahore, UVAS, UAF, PCSIR and ARI KPK.

2. Purpose of the Qualification

The aim of this qualification is to set high and applicable professional standards for all stake holders in agriculture sector. The basic goals of establishing these credentials are as follows:

1. Equip with the latest off-season vegetable production techniques
2. Improve trainees' professional competence
3. Provide opportunities for recognition of non-formal or informal skills
4. Raise standard and efficacy of scientific training and assessment
5. Improve crop production through the best management skills
6. Enable the existing workforce to learn new technologies and methods
7. Producing a skilled workforce for off-season vegetable production

3. Levelling of Core Competencies of the Qualification

Code	Competency Standard	Category	Level	Credit
CS31	Select and procure material required for poly-tunnel	Technical	4	6
CS32	Install low tunnel	Technical	4	6
CS33	install walk-in tunnel	Technical	4	9
CS34	install high tunnel	Technical	4	11
CS35	perform Mulching	Technical	4	8
CS36	Maintain poly-tunnel structure	Technical	4	6
CS37	Select irrigation System	Technical	4	6
CS38	Apply flood irrigation	Technical	4	8
CS39	Install drip irrigation system	Technical	4	10
CS40	Perform Post care	Technical	4	6
CS41	Perform installation of fertigation system	Technical	4	8
CS42	Manage soil fertility	Technical	4	6
CS43	Develop Professionalism	Generic	4	3
CS44	Perform workplace communication skills	Generic	4	3
CS45	Manage workforce planning	Generic	4	3
CS46	Undertake project work	Generic	4	3
CS47	Apply interpersonal skills	Generic	4	3
CS48	Maintain professionalism in workplace	Generic	4	3
CS49	Manage meetings	Generic	4	3
CS50	Manage workforce planning	Generic	4	3
CS51	Undertake project work	Generic	4	3
CS52	Apply interpersonal skills	Generic	4	3

4. Date of Validation

The level 5 of National qualification on Tunnel Farming, Greenhouse & Agribusiness has been validated by the Qualifications Validation Committee (QVC) members on January 12-16, 2021 at PITAC, Lahore and will remain valid for ten years i.e. **15 Jan, 2031**

5. Date of Review

The level 5 of National qualification on Tunnel Farming, Greenhouse & Agribusiness has been validated by the Qualifications Validation Committee (QVC) members on January 12-16, 2021 at PITAC, Lahore and shall be reviewed after three years i.e. 15-01-2024.

6. Codes of Qualifications

The International Standard Classification of Education (ISCED) is a framework for assembling, compiling and analyzing cross-nationally comparable statistics on education and training. ISCED codes for these qualifications are assigned as follows:

Code	Description
ISCED Classification for Tunnel Farming, Greenhouse & Agribusiness Level 4	
Tunnel Fitter/Fabricator(Level 4)	
CS31	Select and procure material required for poly-tunnel
CS32	Install low tunnel
CS33	Install walk-in tunnel
CS34	Install high tunnel
CS35	Perform Mulching
CS36	Maintain poly-tunnel structure
CS37	Select irrigation System
CS38	Apply flood irrigation
CS39	Install drip irrigation system
CS40	Perform Post care
CS41	Perform installation of fertigation system
CS42	Manage soil fertility
CS43	Develop Professionalism
CS44	Perform workplace communication skills
CS45	Manage workforce planning
CS46	Undertake project work
CS47	Apply interpersonal skills
CS48	Maintain professionalism in workplace
CS49	Manage meetings
CS50	Manage workforce planning
CS51	Undertake project work
CS52	Apply interpersonal skills

7. Members of Qualification Development Committee

The following members participated in the qualification development process on 23rd to 27th November'2020 at PITAC, Lahore.

S#	Name	Designation
1.	Dr.M. Nasir Subhani	Associate Professor – PU, Lahore
2.	Dr. Sumaira Maqsood	Assistant Professor – IAS, PU, Lahore
3.	Dr. Waheed Akram	Post Doc. Scholar, Vegetable Research Institute, Academy of Agricultural Sciences Guangzhou China
4.	Dr. Yousaf Noor	Senior Research Officer, Directorate of Soil and Plant Nutrition, ARI, Tarnab Peshawar
5.	Mr. Malik Fiaz Hussain Ferdosi	Assistant Professor – IAS, PU, Lahore
6.	Mr. Adnan Zahid	Lecturer – IAS, PU, Lahore
7.	Ms. Hina Ashraf	PhD Scholar – IAS, PU, Lahore
8.	Mr. Saeed Ahmed	UVAS, Pattoki
9.	Mr. Muhammad Asif	Master Trainer(Off Season Vegetable Production), Lahore
10.	Mr. Muzammil Usman Khan	Consultant (Greenhouse/Off Season Vegetable Production), Punjab
11.	Engr. Danish Khan	DACUM Facilitator
12.	Mr. Muhammad Ishaq	Deputy Director/ Coordinator –(Skills Standards and Curricula) NAVTTC HQ

8. Members of Qualification Validation Committee

The following members participated in the qualification validation process on 12-01-2021 to 16-01-2021 at PITAC, Lahore.

S#	Name	Designation
1.	Dr. Adnan Zahid	Associate Prof (IAGS,PU, Lahore)
2.	Dr. Sumaira Maqsood	Associate Prof (IAGS,PU, Lahore)
3.	Mr. Farhan Mehmood	Parks and Horticulture Authority, Rawalpindi
4.	Mr. Muhammad Faheem	Research Associate(Agriculture University Rawalpindi)
5.	Ms. Hadia Maqsood	Master Trainer, Seasonal Vegetables Lahore
6.	Mr. Mozzam Anees	Lecturer(IAGS,PU, Lahore)
7.	Ms. Noor Ul Ain	M.Phil. Scholar, (IAGS,PU, Lahore)
8.	Mr. Mushtaq Ahmed	Representative (P-TEVTA), Lahore
9.	Mr. Faqir Muhammad Kafi	PBTE Representative, Lahore
10.	Dr. Mehmood ur Rehman	Representative (S-TEVTA), Khairpur
11.	Mr. Ibrahim Anwar	KPK TEVTA
12.	Engr. Danish Khan	DACUM Facilitator
13.	Mr. Muhammad Ishaq	Deputy Director/ Coordinator – (Skills Standards and Curricula) NAVTTC HQ

9. Entry Requirements

The entry requirement for this qualification would be Level-3.

10. Detail of Competency Standards

CS 31: Select and procure material required for poly-tunnel

Overview: This competency standard covers the skills and knowledge required to select suitable material to build different types of poly-tunnels and to procure the suitable materials.

Competency Units	Performance Criteria
CU1. Select foundation material	**P1.** Collect data of climate and site conditions **P2**. Select durable and corrosion resistant material **P3**. Select suitable material as per standards
CU2. Select poly-tunnel structure material	**P1.** Select support bars for climbing plants **P2.** Select suitable material to walk underneath **P3.** Select structure for side vents as per standards **P4.** Select gauge of polyethylene sheet as per requirement
CU3. Conduct market survey for procurement of material	**P1.** Plan market survey according to prescribed standard **P2**. Collect data of material required for poly-tunnel structure on prescribed format **P3**. Ensure health and safety standards
CU4. Perform procurement	**P1**. Select poly-tunnel structure material as per job requirement **P2**. Procure the poly-tunnel structure material as per standards **P3.** Manage for labour to load and unload materials **P4.** Ensure health and safety standards
CU5. Quality assurance	**P1**. Ensure the quality of materials **P2.** Ensure the gauge of polyethylene sheet P3. Ensure quality of pipes or foundation material

<u>Knowledge & Understanding.</u>

The candidate must be able to demonstrate underpinning knowledge and understanding required to select material for construction of poly-tunnel. This includes the knowledge of

K1. Different materials required for construction of poly-tunnel, their specifications and uses.

K2. Learn about different materials used for installation of irrigation and ventilation systems.

K3. Learn about different types of poly-tunnel

K4. Understand requirements of different crops

K5. Understand weather and climate conditions of an area

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Knowledge of different materials required for construction of poly-tunnel.

- Capable to identify and select required material

- Decision about suitability of different poly-tunnels for specific crops and area

TOOLS AND EQUIPMENT

The tools and equipment required for this competency standard are given below:

S. No.	Items
1.	Drawing sheet
2.	Pencil
3.	Rubber
4.	Sharpner
5.	Muasuring tape
6.	Foundation bars
7.	Support bars
8.	Ventilation Fans
9.	Door accessories
10.	Iron bars of different quality
11.	Polyethylene sheets of differetn guages

CS 32: Install Low Tunnel

Overview: This competency standard covers the skills and knowledge required to install low tunnel.

Competency Units	Performance Criteria
CU1. Prepare work plan for low tunnel installation	**P1.** Identify and arrange required tools and equipment before installation **P2.** Perform calibration of instruments if required **P3.** Perform quality checks **P4.** Prepare plan for required task **P5.** Ensure required safety standards

CU2. Perform transportation of materials for low tunnel installation	**P1.** Ensure safe loading of material **P2.** Ensure safe transport of material for installation at site as per recommendation **P3.** Ensure safe unloading of material **P4.** Ensure safe placement of material at site. **P5.** Ensure PPEs.
CU3. Implement layout plan as per design	**P1.** Understanding of layout design **P2.** Demarcation on site before installation **P3.** Demarcation on site before installation **P4.** Perform placement of material in field as per recommendation **P5.** Ensure PPEs.
CU4. Perform installation of bamboo/mulberry structure for low tunnel	**P1.** Install the bamboo/mulberry sticks in field as per recommendation **P2.** Perform fixing of sticks with plastic wire. **P3.** Perform polythene plastic covering as per recommendation. **P4.** Perform post installation practices as per standards **P5.** Ensure PPEs.
CU5. Perform installation of iron structure for low tunnel	**P1.** Install the iron rod in field as per recommendation **P2.** Perform fixing of sticks with suitable wire. **P3.** Perform polythene plastic covering as per recommendation. **P4.** Perform post installation practices as per standards **P5.** Ensure PPEs.

Knowledge & Understanding.

The candidate must be able to demonstrate construction of different structures of poly-tunnel.

This includes the knowledge of

K1. General requirements of low tunnel installation.

K2. Risk involved in installation of low tunnel

K3. Maintenance of workplace such as assurance of electric power, water for irrigation and hygienic conditions of work place.

K4. Duration of shelf life of low tunnel

K5. Standard procedures for installation of low-tunnel according to provided design.

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Proper planning of low-tunnel structure
- Work place organization in well planned
- Follow safety instruction required to operate tools
- Assemble the structure according to the planned
  design

TOOLS AND EQUIPMENT

The tools and equipment required for this competency standard are given below:

S. No.	Items
1.	Iron rod and steel wires
2.	Bamboo sticks
3.	Ropes
4.	Different parts of low-tunnel
5.	Polyethylene sheet
6.	Fencing staples and sand bags
7.	Measuring scale
8.	Measuring tape

CS 33: Install walk-in Tunnel

Overview: This competency standard covers the skills and knowledge required to install a walk-in tunnel structure.

Competency Units	Performance Criteria
CU1. Prepare work plan for walk-in tunnel installation	**P1.** Identify and arrange required tools and equipment before installation **P2.** Perform calibration of instruments if required **P3.** Perform quality checks **P4.** Prepare plan for required task **P5.** Ensure required safety standards

CU2. Perform transportation of installation materials for walk-in tunnel	**P1.** Ensure safe loading of material **P2.** Ensure safe transport of material for installation at site as per recommendation **P3.** Ensure safe unloading of material **P4.** Ensure safe placement of material at site. **P5.** Ensure PPEs.
CU3. Implement layout plan as per design	**P1.** Understanding of layout design **P2.** Demarcation on site before installation **P3.** Perform placement of material in field as per recommendation **P4.** Ensure PPEs.
CU4. Perform installation of bamboo/mulberry structure for walk-in tunnel	**P1.** Install the bamboo/mulberry sticks in field as per recommendation **P2.** Perform fixing of sticks with plastic wire. **P3.** Perform polythene plastic covering as per recommendation. **P4.** Perform post installation practices as per standards **P5.** Ensure PPEs.
CU5. Perform installation of iron structure for walk-in tunnel	**P1.** Install the iron rod in field as per recommendation **P2.** Perform fixing of sticks with suitable wire. **P3.** Perform polythene plastic covering as per recommendation. **P4.** Perform post installation practices as per standards **P5.** Ensure PPEs.

Knowledge & Understanding.

The candidate must be able to demonstrate construction of different structures of poly-tunnel.

This includes the knowledge of

K1. Safety measures required to start work.

K2. General requirements for the preparation of walk-in tunnel.

K3. Development of working environment such as availability of electric power, water for

irrigation and cleaning of work place.

K4. Availability of sunlight, proper aeration and proper direction of walk-in tunnel.

K5. Duration of shelf life of low tunnel

K6. Standard procedures for installation of walk-in tunnel according to provided design.

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Proper knowledge relating to the framework of walk-in tunnel structure
- Design workplace as per standard
- Follow safety instruction required to operate tools
- Set up the structure according to the planned design

TOOLS AND EQUIPMENT

The tools and equipment required for this competency standard are given below:

S. No.	Items
1.	Tools
2.	Foundation bars and Fencing staples
3.	Structure bars and sand bags
4.	Different parts of walk-in tunnel
5.	Polyethylene sheet
6.	Marker and steel wires
7.	Measuring scale
8.	Measuring tape

CS 34: Install high Tunnel

Overview: This competency standard covers the skills and knowledge required to install different materials to construct a High-tunnel.

Competency Units	Performance Criteria
CU1. Prepare work plan for high tunnel installation	**P1.** Identify and arrange required tools and equipment before installation **P2.** Perform calibration of instruments if required **P3.** Perform quality checks **P4.** Prepare plan for required task **P5.** Ensure required safety standards
CU2. Perform transportation of installation materials for	**P1.** Ensure safe loading of material

high tunnel	**P2.** Ensure safe transport of material for installation at site as per recommendation **P3.** Ensure safe unloading of material **P4.** Ensure safe placement of material at site. **P5.** Ensure PPEs.
CU3. Implement layout plan as per design	**P1.** Understanding of layout design **P2.** Demarcation on site before installation **P3.** Perform placement of material in field as per recommendation **P4.** Ensure PPEs.
CU4. Perform installation of bamboo/mulberry structure for high tunnel	**P1.** Install the bamboo/mulberry sticks in field as per recommendation **P2.** Perform fixing of sticks with plastic wire. **P3.** Perform polythene plastic covering as per recommendation. **P4.** Perform post installation practices as per standards **P5.** Ensure PPEs.
CU5. Perform installation of iron structure for high tunnel	**P1.** Install the iron rod in field as per recommendation **P2.** Perform fixing of sticks with suitable wire. **P3.** Perform polythene plastic covering as per recommendation. **P4.** Perform post installation practices as per standards **P5.** Ensure PPEs.

Knowledge & Understanding.

The candidate must be able to demonstrate construction of different structures of high-tunnel. This includes the knowledge of

K1. Initiate work with safety measures

K2. Specific prerequisites of poly-tunnel construction.

K3. Development of working environment such as availability of electric power, water for irrigation and cleaning of work place.

K4. Availability of sunlight, proper aeration and proper direction of tunnel.

K5. Time span of high tunnel structure

K6. Standard procedures for installation of poly-tunnel according to provided design.

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Proper planning of high-tunnel construction
- Well organize the work place
- Follow safety instruction needed to operate tools
- Construct the structure according to the planned design

TOOLS AND EQUIPMENT

The tools and equipment required for this competency standard are given below:

S. No.	Items
9.	Tools
10.	Foundation bars and fencing staples
11.	Structure bars and steel wires
12.	Different parts of poly-tunnel
13.	Polyethylene sheet
14.	Marker and sand bags
15.	Measuring scale
16.	Measuring tape

CS 35: Perform Mulching

Overview: This competency standard covers the skills and knowledge required to prepare for work, perform organic mulching, perform in-organic mulching and post application management.

Competency Units	Performance Criteria
CU1. Prepare for work	**P1.** Identify and arrange required tools and equipment before installation **P2.** Perform calibration of instruments if required **P3.** Perform quality checks **P4.** Prepare plan for required task **P5.** Ensure required safety standards
CU2. Perform organic mulching	**P1.** Identify and arrange required organic material for mulching as per recommendations. **P2.** Perform placement of organic mulch as per standard. **P3.** Ensure health & safety standards

CU3. Perform in-organic mulching	**P1.** Identify and arrange required in-organic material for mulching as per recommendations. **P2.** Perform placement of in-organic mulch as per standard. **P3.** Ensure health & safety standards
CU4. Perform post application mangement.	**P1.** Perform periodic visits and prepare a report **P2.** Analyses the report and make prerequisite. **P3.** Perform post management.

Knowledge & Understanding.

The candidate must be able to demonstrate construction of different structures of poly-tunnel. This includes the knowledge of

K1. Safety measures required to start work.

K2. General requirements of poly-tunnel construction.

K3. Development of working environment such as availability of electric power, water for irrigation and cleaning of work place.

K4. Availability of sunlight, proper aeration and proper direction of tunnel.

K5. Standard procedures for installation of poly-tunnel according to provided design.

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Proper planning of poly-tunnel construction
- Preparation of work place
- Follow safety instruction required to operate tools
- Assemble the structure according to the planned design

TOOLS AND EQUIPMENT

The tools and equipment required for this competency standard are given below:

S. No.	Items
17.	Tools
18.	Foundation bars
19.	Structure bars
20.	Different parts of poly-tunnel
21.	Polyethylene sheet
22.	Marker

23.	Measuring scale
24.	Measuring tape

CS 36: Maintain Poly-Tunnel Structure

Overview: This competency standard covers the skills and knowledge required to effectively maintain the poly-tunnel.

Competency Units	Performance Criteria
CU1. Monitor the poly-tunnel	**P1**. Perform periodic surveys of the poly-tunnel **P2.** Identify structural damage **P3.** Report the structural damage as per standard format **P3.** Ensure health and safety standards
CU2. Maintain poly-tunnel structure	**P1**. Arrange required material and tools for repairing **P2**. Repair the required damage of poly-tunnel structures **P3.** Maintain mulching as per standard **P4.** Maintain records **P5.** Ensure health and safety standards

Knowledge & Understanding.

The candidate must be able to demonstrate the factors for damaging poly-tunnel. This includes the knowledge of

K1. Factors for poly-tunnel damage

K2. Management practices regarding damage in poly-tunnel

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Conduct poly-tunnel survey to identify damages
- Arrange material required for maintenance

TOOLS AND EQUIPMENT

The tools and equipment required for this competency standard are given below:

S. No.	Items
1.	Ladder
2.	Notebook
3.	Pencil

4.	Marker
5.	Eraser
6.	Sharpner
7.	Measuring tape
8.	Polyethylene sheet
9.	Tools

CS 37: Select Irrigation System

Overview: This competency standard covers the skills and knowledge required to plan for identification and layout of irrigation system.

Competency Units	Performance Criteria
CU1 identify of irrigation system	**P1**. Identify source of irrigation water **P2**. Prepare plan for use of selected source **P3**. Identify and arrange tools as per the job requirement **P4.** Maintain Records **P5.** Ensure required safety standards
CU2. Prepare layout for Irrigation system	**P1**. Identify available resource **P2**. Select irrigation method **P3**. Draw proper design for selected irrigation method **P4.** Maintain Records **P5.** Ensure required safety standards
CU3. Cost Estimation	**P1**. Conduct market survey for cost estimation as per recommendation **P2**. Select suitable material as per requirement **P3**. Procure selected material as per SOPs **P4.** Maintain records as per prescribed format **P5.** Ensure required safety standards

Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes the knowledge of

K1. Different water sources.

K2. Different irrigation layout plans.

K3. Irrigation layout as per sowing plan.

K4. Water deficiency symptoms and their identification in field

K4. Use of different irrigation equipment

K5. Efficient use of hygrometer to evaluate water deficiency in soil.

K6. Survey Techniques for cost analysis

K7. Selection of materials as per requirement

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Irrigation sources
- Sowing plan according to irrigation layout
- Select materials
- Survey market to conduct cost analysis

TOOLS AND EQUIPMENT

The tools and equipment required for this competency standard are given below:

S. No.	Items
1.	White chart and stationary
2.	Wire cutter
3.	Trencher machie
4.	Shovel
5.	Hygrometer
6.	Calculator
7.	File covers

CS 38: Apply Flood Irrigation

Overview: This competency standard covers the skills and knowledge required to plan for identification and layout of flood irrigation system.

Competency Units	Performance Criteria
CU1. Prepare work plan.	**P1.** Identify and arrange required tools for measuring environmental conditions **P2.** Perform calibration of instruments if required **P3.** Perform quality checks **P4.** Prepare plan for required task **P5.** Ensure required safety standards
CU2. Ensure pre-irrigation requirements	**P1.** Identify the conditions of selected area (topography, climate and soil) **P2.** Perform pre checks of required irrigation source **P3.** Identify and arrange required tools and equipment **P4.** Maintain Records **P5.** Ensure required safety standards

CU3. Prepare layout for flood irrigation	P1. Identify and arrange required tools and equipment P2. Draw proper design for selected irrigation method P3. Maintain Records P4. Ensure required safety standards
CU4. Perform flood irrigation	P1. Follow the planned layout design P2. Apply irrigation as per standard P3. Ensure health and safety standards

Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes the knowledge of

K1. Different water sources.

K2. Conditions of selected area (topography, soil and climate)

K3. Different irrigation layouts for flood irrigation.

K4. Sowing plan as per irrigation layout

K5. Use of hygrometer to determine water deficiency in soil.

K6. Use of different irrigation equipment

K7. Survey Techniques for cost analysis

K8. Selection of materials according to special farm requirements

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Irrigation sources
- Sowing plan according to flood irrigation layout
- Survey market to conduct cost analysis
- Select materials

TOOLS AND EQUIPMENT

The tools and equipment required for this competency standard are given below:

S. No.	Items
1.	White chart
2.	Sickle and shovel
3.	Wire cutter
4.	Wrenches and knife
5.	Sharpner and fencing staples

6.	Calculator
7.	File covers

CS 39: Install Drip Irrigation System

Overview: This competency standard covers the skills and knowledge required to plan for identification and layout of drip irrigation system.

Competency Units	Performance Criteria
CU1. Prepare work plan	**P1.** Identify and arrange required tools for measuring environmental conditions **P2.** Perform calibration of instruments if required **P3.** Perform quality checks **P4.** Prepare plan for required task **P5.** Ensure required safety standards
CU2. Ensure pre-installation requirements	**P1.** Identify the conditions of selected area (topography, climate and soil) **P2.** Identify and arrange required tools and equipment **P3.** Ensure availability of required material for drip irrigation system installation **P4.** Maintain Records **P5.** Ensure required safety standards
CU3. Prepare layout for drip-Irrigation system	**P1.** Identify and arrange required tools and equipment **P2.** Draw proper design for selected irrigation method **P3.** Maintain records **P4.** Ensure required safety standards
CU4. Perform drip irrigation system installation	**P1.** Identify and arrange required tools and equipment for drip irrigation system installation **P2.** Perform installation as per planned layout design **P3.** Ensure PPEs.
CU5. Perform drip irrigation	**P1.** Apply irrigation as per standard **P2.** Maintain records **P3.** Ensure health and safety standards.

Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes the knowledge of

K1. Different water sources.

K2. Different irrigation layouts for drip irrigation.

K3. Sowing plan as per irrigation layout

K4. Uniform water distribution to each plant

K4. Water deficiency symptoms and their identification in field

K4. Use of hygrometer to determine water deficiency in soil.

K5. Use of different drip irrigation equipment

K6. Efficient distribute of water near root zone.

K6. Survey Techniques for cost analysis

K7. Selection of materials according to special farm requirements

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Drip irrigation sources
- Sowing plan according to drip irrigation layout
- Survey market to conduct cost analysis
- Select materials

TOOLS AND EQUIPMENT

The tools and equipment required for this competency standard are given below:

S. No.	Items
1.	Stationary
2.	Stakes holder l
3.	Hole punches
4.	Hanging baskets
5.	Wire cutter
6.	Calculator
7.	File covers

CS 40: Perform Irrigation Post Care

Overview: This competency standard covers the skills and knowledge required to plan for care/ handling after irrigation.

Competency Units	Performance Criteria
CU1. Prepare work plan	**P1.** Identify and arrange required tools for measuring environmental conditions **P2.** Perform calibration of instruments if required **P3.** Perform quality checks **P4.** Prepare plan for required task **P5.** Ensure required safety standards
CU2. Post-flood irrigation care	**P1.** Identify and arrange required tools and equipment **P2.** Perform periodic visits

		P3. Observe conditions of selected area regarding soil moisture and climatic condition and make a report **P4.** Perform management of erosion **P5.** Maintain records **P6.** Ensure required safety standards
CU3.	Post-drip irrigation care	**P1.** Identify and arrange required tools and equipment **P2.** Perform periodic visits **P3.** Observe conditions of selected area regarding soil moisture and climatic condition and make a report **P4.** Maintain records **P5.** Ensure required safety standards
CU4.	Report Analysis	**P1.** Follow up the visits of post-flood irrigation and post-drip irrigation. **P2.** Analyse report and make recommendation as per standard **P3.** Maintain records **P4.** Ensure health and safety standards

Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes the knowledge of

K1. Maintenance of water after irrigation.

K2. Proper handling of irrigated water.

K3. Efficient drainage plan.

K4. Water deficiency symptoms and their identification in field

K4. Use of hygrometer to determine water deficiency in soil.

K5. Use of different irrigation equipment

K6. Understanding post-harvest techniques.

K7. Selection of materials according to special farm requirements

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Irrigation post-harvest losses
- Post-harvest management techniques
- Recognize market channels and possible losses

- Select materials

TOOLS AND EQUIPMENT

The tools and equipment required for this competency standard are given below:

S. No.	Items
1.	White chart
2.	Pencil
3.	Writing pad
4.	Eraser
5.	Sharpner
6.	Calculator
7.	File covers

CS 41: Perform installation of fertigation system

Overview: This competency standard covers the skills and knowledge required to plan installation of fertigation system.

Competency Units	Performance Criteria
CU1. Prepare work plan for fertigation system installation	**P1.** Identify and arrange tools required for fertigation system installation **P2.** Prepare work plan for required task **P3.** Adopt precautionary measures regarding personnel health and safety as per standard
CU2. Perform Fertigation system installation	**P1.** Identify and arrange required tools and equipment **P2.** Arrange materials required for fertigation system **P3.** Perform conventional installation of fertigation system **P4.** Perform modern installation of Fertigation system

Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes the knowledge of

K1. Basic fertilizers as per crop requirement

K2. Work plan for fertigation installation

K3. Conventional and modern fertigation system

K4. Health and safety protocols involved

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Prepare soil samples
- Identify water and nutrient deficiency
- Identify the sources of nutrients
- Prepare fertigation layouts
- Qualitative analysis of water and nutrients
- Apply fertigation

TOOLS AND EQUIPMENT

The tools and equipment required for this competency standard are given below:

S. No.	Items
1.	Kassi
2.	Spade
3.	Drawing sheet
4.	Lead pencil
5.	Eraser
6.	Sharpner
7.	White lime powder
8.	Plastic bags
9.	Permanent marker
10.	Scotch tape
11.	Irrigation pipes
12.	Generators
13.	Welding plant

CS 42: Manage Soil Fertility

Overview: This competency standard covers the skills and knowledge required to manage soil fertility.

Competency Units	Performance Criteria
CU1. Prepare for work	**P1.** Identify and arrange tools required for Nutrition management. **P2.** Prepare work plan for required task **P3.** Adopt precautionary measures regarding personnel health and safety as per standards
CU2. Organic fertilizer	**P1.** Select required organic fertilizers for managing

	nutrition.
	P2. Calculate the required amount of organic fertilizer as per standard
	P3. Perform application of organic fertilizers as per standards
	P4. Ensure health and safety standards
CU3. Inorganic fertilizers	**P1.** Identify and enlist the inorganic fertilizers
	P2. Calculate the amount and type of organic fertilizer as per standard
	P3. Perform the application of organic fertilizer as per standard
	P4. Ensure health and safety standards
CU4. Perform soil nutrient management	**P1.** Identify and arrange tools required for manuring
	P2. Adopt precautionary measures regarding personnel health and safety as per standards
	P3. Prepare work plan for required task

Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes the knowledge of

- K1. Soil and water sampling methods
- **K2.** Soil and water sample storage
- K3. Soil and water
- K4. Dispatch samples to soil testing laboratory
- K5. Fertilizers/manures and their application techniques

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Prepare soil and water samples
- Prepare soil and water samples for storage
- Identify water and nutrient deficiency
- Identify the sources of nutrients fertilizers/manures

TOOLS AND EQUIPMENT

The tools and equipment required for this competency

standard are given below:

S. No.	Items
1.	Fertlizers or manures
2.	Gardening tool kit
3.	PPEs
4.	First Aid Box

CS 43: Develop Professionalism

Overview: This competency standard covers the skills and knowledge required to Demonstrate work ethic, Aware of factors affecting personal health, resolve problems or disagreements with others, participate in professional development, Work with others, work independently, Speak and listen effectively, interpret documentation, communicate using signals, and communicate Using electronic equipment.

Competency Units	Performance Criteria
CU1 Demonstrate work ethic	**P1.** Follow principles of work ethics in all situations **P2.** Adopt professional behavior
CU2 Select factors affecting personal health	**P1.** Follow factors affecting personal health **P2.** Aware about the situations/conditions that cause stress in professional and personal life
CU3 Resolve problems or disagreements with others	**P1.** Communicate effectively **P2.** Adopt peaceful approach **P3.** Regulate cause of problem or disagreement **P4.** Resolve issues
CU4 Participate in professional development	**P1.** Assess own knowledge and skills **P2.** Acquire information about training opportunities **P3.** Adopt to Learn through various methods, such as on job training, reading, courses and co-workers
CU5 Work with others	**P1.** Work as a team member to achieve common goals **P2.** Keep mind open. **P3.** Participate in workplace meetings **P4.** Communicate accurately and clearly

		P5. Co-ordinate job related activities
		P6. Cooperate with others
CU6	Work independently	**P1.** Confirm and clarify assignment
		P2. Take initiative, anticipate and prepare for next steps in job
		P3. Identify and resolve potential and actual problems
		P4. Communicate with other site personnel
		P5. Complete assignment
CU7	Speak and listen effectively	**P1**. Listen carefully to describe said
		P2. Confirm understanding, such as repeat instructions
		P3. Communicate message clearly and accurately to others
		P4. Exchange information with others, such as supervisor, signaler, general public, inspectors, other operators and trade people
CU8	Interpret documentation	**P1.** Access and maintain documents
		P2. Provide complete, legible and accurate information in documents
		P3. Interpret equipment inspection documentation from previous shifts before conducting pre-operational inspection
CU9	Communicate with signals	**P1.** Identify and work with signals
		P2. Communicate with audible signals, such as back-up alarm, and site emergency horn
		P3. Communicate with hand signals
CU10	Communicate with electronic equipment	**P1.** Check communication devices to verify operating condition, such as complete radio checks
		P2. Deliver and receive messages using communication equipment
		P3. Follow communication protocol

Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes the knowledge of:

K1: Applicable legislation, such as harassment

K2: Audible and warning signals used on job site

K3: Conflict resolution techniques.

K4:. Principles of work ethic and expectations.

K5: Factors/situations/conditions that cause stress in professional and personal life

K6: Impact of fatigue on job performance.

K7: Importance of complete, legible, and accurate documentation

K8: Importance of effective communication

K9: Own role and responsibilities

K10: Role and responsibilities of signalers

K11: Roles of individuals on job site, such as supervisor, inspector, other trades people

K12: Types of communication equipment used on job site

K13: Types of documentation required, such as log books, safety reports, maintenance reports, inspection reports, time cards

K14: Work assignment, location, and working conditions

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Handle and set Lightening for Current affair program Own current mental, emotional, and physical state.
- Working conditions on construction site.
- Effective communication.
- Maintain log books, safety reports, maintenance reports, inspection reports, time cards
- Signalers on job site
- Audible and warning signals used on job site
- Communication equipment used on job site

CS 44: Perform workplace communication skills

Overview: This unit describes the skills and knowledge required to manage a range of meetings including overseeing the meeting preparation processes, chairing meetings, organizing the minutes and reporting meeting outcomes.

Competency Unit	Performance Criteria
CU1. Demonstrate professional skills	**P1.** Use different modes of communication to communicate • Speaking • Reading • Writing

		•	Listening
		•	Presentation
		•	visual representation etc.
	P2.	Develop CV Skills according requirements	
	P3.	Upgrade professional skills by attending trainings, webinars, conferences etc.	
	P4.	Perform Continuous professional development as required at workplace	
	P5.	Develop interview skills	
CU2. Plan and Organize work	**P1.**	Identify and plan steps to complete task	
	P2.	Implement planned steps to complete task	
	P3.	Evaluate planning and organizing process	
	P4.	Identify hurdles and seek solutions to complete task	
CU3. Conduct trainings at workplace	**P1.**	Conduct training need assessment	
	P2.	Organize training session	
	P3.	Support trainees in managing their learning by facilitating them	
	P4.	Provide feedback on progress of trainees	

Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes:

K1 Explaining the training skills
K2 Identification of professional skills
K3 Describing advanced language skills
K4 Understanding the assessment and trainee's feedback methods
K5 Direct and indirect communication methods
K6 Explaining the need for the training type at the workplace

Tools and Equipment

The tools and equipment required for this competency standard are given below:

S. No.	Items
1	Printer
2	Projector
3	LED screen
4	Computer

Critical Evidence(s) Required

The candidate needs to produce following **Critical Evidence**(s) in order to be competent in this competency standard:

CS 45: Manage workforce planning

Overview: This unit describes the skills and knowledge required to manage planning in relation to an organization's workforce including researching requirements, developing objectives and strategies, implementing initiatives and monitoring and evaluating trends.

Competency Unit	Performance Criteria
CU1. Identify workforce	**P1.** Review current data on staff turnover and demographics **P2.** Assess factors that may affect workforce supply **P3.** Develop organization's requirement for skilled workforce
CU2. Develop workforce objectives and strategies	**P1.** Review organizational strategy and establish aligned objectives for modification **P2.** Prepare strategies to address unacceptable staff turnover, if required **P3.** Define objectives to retain required skilled labor **P4.** Define objectives for workforce diversity and cross-cultural management **P5.** Obtain agreement and endorsement for objectives and establish targets **P6.** Develop contingency plans to cope with extreme situations
CU3. Implement initiatives to support workforce planning objectives	**P1.** Implement action to support agreed objectives for recruitment, training, redeployment and redundancy **P2.** Develop and implement strategies to assist workforce to deal with organizational dynamics **P4.** Implement succession planning model to ensure desirable workers are developed and retained **P5.** Implement programs to ensure workplace is an employer of choice
CU4. Monitor and evaluate workforce trends	**P1.** Evaluate workforce plan against patterns in exiting employee and workforce changes **P2.** Monitor labor supply trends for areas of high turnover in external environment **P3.** Monitor effects of labor trends on demand for labor **P4.** Survey organizational climate to gauge worker satisfaction **P5.** Refine objectives and strategies in response to national and international changes and make recommendations in response to global trends.

	P6. Regularly review government policy on labor jobs according to labor rights. **P7.** Evaluate effectiveness of change processes against agreed objectives

Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes:

K1	Explain current information about external labor supply relevant to the specific industry or skill requirements of the organization
K2	Outline industrial relations relevant to the specific industry
K3	Describe labor force analysis and forecasting skills

Critical Evidence(s) Required

The candidate needs to produce the following **Critical Evidence**(s) in order to be competent in this competency standard:

- Review relevant trends and supply and demand factors that will impact on an organization's workforce
- Develop a workforce plan that includes relevant research and specific strategies to ensure access to a skilled and diverse workforce.

CS 46: Undertake project work

Overview: This unit describes the skills and knowledge required to undertake a straightforward project or a section of a larger project. It covers developing a project plan, administering and monitoring the project, finalizing the project and reviewing the project to identify lessons learned for application to future projects. This unit applies to individuals who play a significant role in ensuring a project meets timelines, quality standards, budgetary limits and other requirements set for the project.

Competency Unit	Performance Criteria
CU1. Define project	**P1.** Assess project scope and other relevant documentation **P2.** Identify project stakeholders **P3.** Seek clarification of discrepancies from delegating authority related to project and project parameters **P4.** Determine and access available resources to undertake project
CU2. Develop project plan	**P1.** Develop project feasibility report **P2.** Develop project plan in line with the project parameters **P3.** Develop and approve project budget **P4.** Formulate risk management plan for project, including Workplace

	Health and Safety (WHS)
CU3. Control and monitor project	**P1.** Ensure project team members are clear about their responsibilities and the project requirements **P2.** Ensure outcomes and documented time lines of the project are met **P3.** Maintain required recordkeeping systems throughout the project **P4.** Implement and monitor plans of project finances and resources **P5.** Prepare project progress reports as required to stakeholders **P6.** Monitor risk management as required to ensure project outcomes are met
CU4. Finalize the project	**P1.** Assess project scope and other relevant documentation **P2.** Identify project stakeholders **P3.** Seek clarification of discrepancies from delegating authority related to project and project parameters **P4.** Determine and access available resources to undertake project

Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes:

K1 Give examples of project management tools and how they contribute to a project
K2 Outline types of documents and other sources of information commonly used in defining the parameters of a project
K3 Explain processes for identifying and managing risk in a project
K4 Explain the organization's procedures and processes that are relevant to managing a project including:
  i. lines of authority and approvals
  ii. quality assurance
  iii. human resources
  iv. budgets and finance
  v. recordkeeping
  vi. reporting
K5 Outline the legislative and regulatory context of the organization in relation to project work, including workplace health and safety (WHS) requirements

Critical Evidence(s) Required

The candidate needs to produce following **Critical Evidence**(s) in order to be competent in this competency standard:
Use project management tools to develop and implement a project plan including:

- deliverables
- work breakdown
- budget and allocation of resources
- timelines
- risk management
- recordkeeping and reporting

CS 47: Apply interpersonal skills

Overview: This unit describes the skills and knowledge required to use advanced and specialized communication skills in the client-counselor relationship.

Competency Unit	Performance Criteria
CU1. Communicate effectively	**P1.** Identify communication barriers and use strategies to overcome these barriers in the client-counselor relationship **P2.** Facilitate the client-counselor relationship through selection and use of micro skills **P3.** Observe and respond to non-verbal communication cues **P4.** Integrate case note taking with minimum distraction
CU2. Use specialized counseling interviewing skills	**P1.** Select and use communication skills according to the sequence of a counseling interview **P2.** Identify points at which specialized counseling interviewing skills are appropriate for inclusion **P3.** Use specialized counseling communication techniques based on their impacts and potential to enhance client development and growth **P4.** Identify and respond appropriately to strong client emotional reactions
CU3. Evaluate own communication	**P1.** Reflect on and evaluate own communication with clients **P2.** Recognize the effect of own values and beliefs on communication with clients **P3.** Identify and respond to the need for development of own skills and knowledge

Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes:

K1 Legal and ethical considerations for communication in counseling practice, and how these are applied in individual practice:
   a. codes of conduct/practice
   b. discrimination
   c. human rights
   d. practitioner/client boundaries
   e. privacy, confidentiality and disclosure
   f. rights and responsibilities of workers, employers and clients

g. work role boundaries responsibilities and limitations of the counselor role

h. workplace health and safety

K2 Communication techniques and micro-skills including:

a. attending behaviors active listening, reflection of content feeling, summarizing

b. questioning skills open, closed, simple and compound questions

c. client observation skills

d. noting and reflecting skills

e. providing client feedback

K3 Components of the communication process including:

a. encoder

b. decoder

K4 Primary factors that impact on the communication process including:

a. context

b. participants

c. rules

d. messages

e. channels

f. noise

g. feedback

K5 Communication barriers and resolution strategies, including:

a. environmental

b. physical

c. individual perceptions

d. cultural issues

e. language

f. age issues

g. disability

K6 Observational techniques including:

a. facial expressions

b. non-verbal behavior

c. posture

d. silence

K7 Ways including:

a. visual in which different people absorb information

b. auditory

c. kinesthetic

K8 Impacts of trauma and stress on the communication process, including on:

a. concentration and attention

b. memory

c. Intelligence

d. use of verbal and written language

e. use of body language

f. challenging within the counseling session

K9 Self-evaluation practices, including:

o how to recognize own biases

o Impact of own values on the counseling relationship

CS 48: Maintain professionalism in workplace

Overview: This unit describes the skills and knowledge required to use advanced and specialized communication skills in the client-counselor relationship.

Competency Unit	Performance Criteria
CU1. Respect work timeframes	**P1.** Demonstrate punctuality in meeting, set working hours and times. **P2.** Utilize working hours only for working and follow company regulations. **P3.** Complete work tasks within deadlines according to order of priority **P4.** Perform extra ordinary during working hours
CU2. Maintain personal appearance and hygiene	**P1.** Clean hair, body and nails regularly. **P2.** Wear suitable cloths for the workplace, and respect local and cultural contexts **P3.** Meet specific company dress code requirements **P4.** Keep smiling and have positive body language during working hours
CU3. Maintain adequate distance with colleagues and clients	**P1.** Respect personal space of colleagues and clients with reference to local customs and cultural contexts. **P2.** Avoid cross transmission of infections (especially through respiration).
CU4. Work in an ethical manner	**P1.** Follow company values/ethics codes of ethics and/or conduct, policies and guidelines. **P2.** Use company resources in accordance with company ethical standards. **P4.** Undertake work practices in compliance with company ethical standards, organizational policy and guidelines. **P5.** Instruct co-workers on ethical, lawful and reasonable directives. **P6.** Share company values/practices with co-workers using appropriate behavior and language. **P7.** Report work incidents/situations and/or resolved in accordance with company protocol/guidelines.

Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes:

K1 Application of good manners and right conduct
K2 Basic practices for oral and personal hygiene
K3 Common products used for oral and personal hygiene
K4 Outline the company code of conduct/values
K5 Outline the Company regulations, performance and ethical standards
K6 Work responsibilities/job functions
K7 Communication skills
K8 Workplace hygiene standards

CS 49: Manage meetings

Overview: This unit describes the skills and knowledge required to manage a range of meetings including overseeing the meeting preparation processes, chairing meetings, organizing the minutes and reporting meeting outcomes. It applies to individuals employed in a range of work environments who are required to organize and manage meetings within their workplace, including conducting or managing administrative tasks in providing agendas and meeting material. They may work as senior administrative staff or may be individuals with responsibility for conducting and chairing meetings in the workplace.

Unit of Competency	Performance Criteria
CU1. Prepare for meetings	**P1.** Develop agenda in line with stated meeting purpose **P2.** Ensure style and structure of meeting are appropriate to its purpose **P3.** Identify meeting participants and notify them in accordance with organizational procedures **P4.** Confirm meeting arrangements in accordance with requirements of meeting **P5.** Dispatch meeting working papers to participants within designated timelines
CU2. Conduct meetings	**P1.** Chair meetings in accordance with organizational requirements, agreed conventions for type of meeting and legal and ethical requirements **P2.** Conduct meetings to ensure they are focused, time efficient and achieve the required outcomes **P3.** Ensure meeting facilitation enables participation, discussion, problem-solving and resolution of issues **P4.**Brief minute-taker on method for recording meeting minutes in accordance with organizational requirements and conventions for type of meeting
CU3. Follow up meetings	**P1.** Check transcribed meeting notes to ensure they reflect a true and accurate record of the meeting and are formatted in accordance with organizational procedures and meeting conventions **P2.** Distribute and store minutes and other follow-up documentation within designated timelines, and according to organizational requirements **P3.**Report outcomes of meetings as required, within designated timelines

Knowledge and Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes the knowledge of:

- **K1** Outline meeting terminology, structures, arrangements
- **K2** Outline responsibilities of the chairperson and explain group dynamics in relation to managing meetings

K3 Describe options for meetings including In-person/physical, teleconferencing, web-conferencing and using webcams

K4 Identify the relevant organizational procedures and policies regarding meetings, chairing and minutes including identifying organizational formats for minutes and agendas.

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) to be competent in this competency standard:

A candidate who demonstrates competency in this unit must be able to provide evidence of the ability to manage meetings. The evidence should integrate employability skills with workplace tasks and job roles and verify competency is able to be transferred to other circumstances and environments.

Demonstrated evidence is required of the ability to:
- apply conventions and procedures for formal and informal meetings including:
  - developing and distributing agendas and working papers
  - identifying and inviting relevant meeting participants
  - organizing and confirming meeting arrangements
  - running the meeting and following up
- organize, take part in and chair a meeting
- record and store meeting documentation
- Follow organizational policies and procedures

CS 50: Manage workforce planning

Overview: This unit describes the skills and knowledge required to manage planning in relation to an organization's workforce including researching requirements, developing objectives and strategies, implementing initiatives, monitoring and evaluating trends. It applies to individuals who are human resource managers or staff members with a role in a policy or planning unit that focuses on workforce planning.

Unit of Competency	Performance Criteria
CU1. Identify workforce	**P1.** Review current data on staff turnover and demographics **P2.** Assess factors that may affect workforce supply **P3.** Develop organization's requirement for skilled workforce
CU2. Develop workforce objectives and strategies	**P1.** Review organizational strategy and establish aligned objectives for modification **P2.** Prepare strategies to address unacceptable staff turnover, if required **P3.** Define objectives to retain required skilled labor **P4.** Define objectives for workforce diversity and cross-cultural

	management **P5.** Obtain agreement and endorsement for objectives and establish targets **P6.** Develop contingency plans to cope with extreme situations
CU3. Implement initiatives to support workforce planning objectives	**P1.** Implement action to support agreed objectives for recruitment, training, redeployment and redundancy **P2.** Develop and implement strategies to assist workforce to deal with organizational dynamics **P4.** Implement succession planning model to ensure desirable workers are developed and retained **P5.** Implement programs to ensure workplace is an employer of choice
CU4. Monitor and evaluate workforce trends	**P1.** Evaluate workforce plan against patterns in exiting employee and workforce changes **P2.** Monitor labor supply trends for areas of high turnover in external environment **P3.** Monitor effects of labor trends on demand for labor **P4.** Survey organizational climate to gauge worker satisfaction **P5.** Refine objectives and strategies in response to national and international changes and make recommendations in response to global trends. **P6.** Regularly review government policy on labor jobs according to labor rights. **P7.** Evaluate effectiveness of change processes against agreed objectives

Knowledge and Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes the knowledge of:

K1 Explain current information about external labor supply relevant to the specific industry or skill requirements of the organization

K2 Outline industrial relations relevant to the specific industry

K3 Describe labor force analysis and forecasting skills

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) to be competent in this competency standard:

A person who demonstrates competency in department must be able to provide evidence of the ability to manage workforce planning. The evidence should integrate employability skills with workplace tasks and job roles and verify competency is able to be transferred to other circumstances and environments.

Demonstrated evidence is required of the ability to:

- review and interpret information from a range of internal and external sources to identify:
  - current staff turnover and demographics

- labor supply trends factors that may affect workforce supply
- organization's workforce requirements objectives and strategies
- manage workforce planning including developing, implementing, monitoring and reviewing strategies to meet workforce needs
- review relevant trends and supply and demand factors that will impact on an organization's workforce
- Develop a workforce plan that includes relevant research and specific strategies to ensure access to a skilled and diverse workforce

CS 51: Undertake project work

Overview: This unit describes the skills and knowledge required to undertake a straightforward project or a section of a larger project. It covers developing a project plan, administering and monitoring the project, finalizing the project and reviewing the project to identify lessons learned for application to future projects. This unit applies to individuals who play a significant role in ensuring a project meets timelines, quality standards, budgetary limits and other requirements set for the project.

Unit of Competency	Performance Criteria
CU1. Define project	**P1.** Assess project scope and other relevant documentation **P2.** Identify project stakeholders **P3.** Seek clarification of discrepancies from delegating authority related to project and project parameters **P4.** Determine and access available resources to undertake project
CU2. Develop project plan	**P1.** Develop project feasibility report **P2.** Develop project plan in line with the project parameters **P3.** Develop and approve project budget **P4.** Formulate risk management plan for project, including Workplace Health and Safety (WHS)
CU3. Administer and monitor project	**P1.** Ensure project team members are clear about their responsibilities and the project requirements **P2.** Ensure outcomes and documented time lines of the project are met **P3.** Maintain required recordkeeping systems throughout the project **P4.** Implement and monitor plans of project finances and resources **P5.** Prepare project progress reports as required to stakeholders **P6.** Monitor risk management as required to ensure project outcomes are met
CU4. Finalize the project	**P1.** Complete financial recordkeeping associated with project for audit **P2.** Maintain proper record of unused items during project **P2.** Complete project documentation and obtain necessary sign-offs for concluding project

Knowledge and Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes the knowledge of:

K1 Give examples of project management tools and how they contribute to a project

K2 Outline types of documents and other sources of information commonly used in defining the parameters of a project

K3 Explain processes for identifying and managing risk in a project

K4 Explain the organization's procedures and processes that are relevant to managing a project including:

    a. lines of authority and approvals
    b. quality assurance
    c. human resources
    d. budgets and finance
    e. recordkeeping
    f. reporting

K5 Outline the legislative and regulatory context of the organization in relation to project work, including workplace health and safety (WHS) requirements.

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) to be competent in this competency standard:

A person who demonstrates competency in this unit must be able to provide evidence of the ability to undertake project work. The evidence should integrate employability skills with workplace tasks and job roles and verify competency is able to be transferred to other circumstances and environments.

Demonstrated evidence is required of the ability to:
- define the parameters of the project including:
  - project scope
  - project stakeholders
  - relationship of project to organizational objectives
  - reporting requirements
  - resource requirements
- use project management tools to develop and implement a project plan including:
  - deliverables
  - work breakdown
  - budget and allocation of resources
  - timelines
  - risk management
  - recordkeeping and reporting

- consult and communicate with relevant stakeholders to generate input and engagement in planning, implementing and reviewing the project
- provide support to team members to enable them to achieve deliverables and to transition them as appropriate at completion of the project
- finalize the project including documentation and reporting
- review and document the project outcomes

CS 52: Apply interpersonal skills

Overview: This unit describes the skills and knowledge required to use advanced and specialized communication skills in client-counselor relationships. This unit applies to individuals whose job role involves working with clients on personal and psychological issues within established policies, procedures and guidelines.

Unit of Competency	Performance Criteria
CU1. Communicate effectively	**P1.** Identify communication barriers and use strategies to overcome these barriers in client-counselor relationships **P2.** Facilitate the client-counselor relationship through selection and use of micro skills **P3.** Observe and respond to non-verbal communication cues **P4.** Integrate case note taking with minimum distraction
CU2. Use specialized counseling interview skills	**P1.** Select and use communication skills according to the sequence of a counseling interview **P2.** Identify points at which specialized counseling interviewing skills are appropriate for inclusion **P3.** Use specialized counseling communication techniques based on their impacts and potential to enhance client development and growth **P4.** Identify and respond appropriately to strong client emotional reactions
CU3. Evaluate own communication	**P1.** Reflect on and evaluate own communication with clients **P2.** Recognize the effect of own values and beliefs on communication with clients **P3.** Identify and respond to the need for development of own skills and knowledge

Knowledge and Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes the knowledge of:

K1 Legal and ethical considerations for communication in counseling practice, and how these are applied in individual practice:
  a. codes of conduct/practice
  b. discrimination
  c. human rights

    d. practitioner/client boundaries

    e. privacy, confidentiality and disclosure

    f. rights and responsibilities of workers, employers and clients

    g. work role boundaries responsibilities and limitations of the counselor role

    h. workplace health and safety

K2 Communication techniques and micro-skills including:

    a. attending behaviors active listening, reflection of content feeling, summarizing

    b. questioning skills open, closed, simple and compound questions

    c. client observation skills

    d. noting and reflecting skills

    e. providing client feedback

K3 Components of the communication process including:

    a. encoder

    b. decoder

K4 Primary factors that impact on the communication process including:

    a. context

    b. participants

    c. rules

    d. messages

    e. channels

    f. noise

    g. feedback

K5 Communication barriers and resolution strategies, including:

    a. environmental

    b. physical

    c. individual perceptions

    d. cultural issues

    e. language

    f. age issues

    g. disability

K6 Observational techniques including:

    a. facial expressions

    b. non-verbal behavior

    c. posture

    d. silence

K7 Ways including:

    a. visual in which different people absorb information

    b. auditory

    c. kinesthetic

K8 Impacts of trauma and stress on the communication process, including on:

    a. concentration and attention

    b. memory

    c. Intelligence

    d. use of verbal and written language

    e. use of body language

    f. challenging within the counseling session

K9 Self-evaluation practices, including:
   a. how to recognize own biases
   b. Impact of own values on the counseling relationship.

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) to be competent in this competency standard:

A person who demonstrates competency in this unit must be able to provide evidence of the ability to apply specialist interpersonal and counseling interview skills. The evidence should integrate employability skills with workplace tasks and job roles and verify competency is able to be transferred to other circumstances and environments.

Demonstrated evidence is required of the ability to:

- interviewed at least 3 different clients using specialized interpersonal communication and counseling interviewing skills, including:
- micro-skills and communication techniques, including:
    o attending behaviors active listening,
    o reflection of content, summarizing
    o questioning skills open, closed, simple and compound questions
    o client observation skills
    o noting and reflecting skills
    o providing client feedback
- specialized counseling interviewing skills, including:
    o challenging
    o reframing
    o focusing
- integrated clear case note taking into the interview process
- Completed a structured process of self-reflection and evaluation of own communication used during the 3 interviews.