CORE COMPETENCIES 331 HRS

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Method	Nominal Duration
Conduct variety and seed characterization selection	 Classify soil types Conduct soil type characterization procedures 	 Lecture / discussion Demonstration Field Visits Video presentation Power point presentation Research activity Incomplete worksheet Role playing Hands-on 	 Demonstration Written examination Oral questioning 	(Total-45 hrs) 9 hrs	
		Identify types of grain growing ecosystem	 Lecture / discussion Demonstration Field Visits Video presentation Power point presentation Research activity Incomplete worksheet Role playing Hands-on 	 Demonstration Written examination Oral questioning 	1 hr
		Explain the different climatic types Weather disturbances Identify climatic patterns	 Lecture / discussion Demonstration Field Visits Video presentation Power point presentation Research activity Incomplete worksheet Role playing Hands-on 	 Demonstration Written examination Oral questioning 	1 hr
		Describe the different types of land	Lecture / discussionDemonstration	DemonstrationWritten	9 hrs

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		topography o Elevation • Determine site topography and elevation through ocular observation	 Field Visits Video presentation Power point presentation Research activity Incomplete worksheet Role playing Hands-on 	examination • Oral questioning	
		 Enumerate prevalent pests and diseases Determine the prevalent pests and diseases Gather pests and diseases – specimens/samples 	 Lecture / discussion Demonstration Field Visits Video presentation Power point presentation Research activity Incomplete worksheet Role playing Hands-on 	 Demonstration Written examination Oral questioning 	6 hrs
		Prepare sample farm record	 Lecture / discussion Demonstration Field Visits Video presentation Power point presentation Research activity Incomplete worksheet Role playing Hands-on 	 Demonstration Written examination Oral questioning 	1 hr
	1.2 Select suitable seed variety	Familiarize on grain varieties	 Lecture / discussion Demonstration Field Visits Video presentation Power point presentation 	 Demonstration Written examination Oral questioning 	3 hrs
		Discuss characteristics of newly released	Research activity Incomplete worksheet	DemonstrationWritten	4 hrs

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Method	Nominal Duration
		varieties Perform varietal characterization List recommended varieties Access the sources of table of recommended varieties Discuss adaptability test Use the table of recommended varieties	 Role playing Hands-on Lecture / discussion Demonstration Field Visits Video presentation Power point presentation Research activity Incomplete worksheet Role playing 	examination • Oral questioning	
		Select varieties	 Hands-on Lecture / discussion Demonstration Field Visits Video presentation Power point presentation Research activity Incomplete worksheet Role playing Hands-on 	 Demonstration Written examination Oral questioning 	1 hr
	1.3 Select quality seeds	Enumerate the classes of seeds and their color tags Explain PLSSC standards	Lecture / discussion Demonstration Field Visits Video presentation Power point presentation Research activity Incomplete worksheet Role playing Hands-on	 Demonstration Written examination Oral questioning 	2 hrs
		Determine	Lecture / discussion	Demonstration	1 hr

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Method	Nominal Duration
		characteristics of quality seeds	 Demonstration Field Visits Video presentation Power point presentation Research activity Incomplete worksheet Role playing Hands-on 	Written examinationOral questioning	
		 Explain sampling and germination test Conduct sampling for the germination test Conduct germination test 	 Lecture / discussion Demonstration Field Visits Video presentation Power point presentation Research activity Incomplete worksheet Role playing Hands-on 	 Demonstration Written examination Oral questioning 	2 hrs
		Select quality seeds	 Lecture / discussion Demonstration Field Visits Video presentation Power point presentation Research activity Incomplete worksheet Role playing Hands-on 	 Demonstration Written examination Oral questioning 	1 hr
		Discuss procedures and guidelines in returning and exchanging non – germinating seeds	Lecture / discussionDemonstrationField VisitsVideo presentation	DemonstrationWritten examinationOral questioning	2 hrs

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Method	Nominal Duration
		 Determine non- germinating seeds result of germination test Return and exchange non- germinating seeds 	 Power point presentation Research activity Incomplete worksheet Role playing Hands-on 	DemonstrationWritten examinationOral questioning	2 hrs
Perform land preparation 2.1 Perform pre-tillage operation	2.1 Perform pre- tillage operations	Discuss proper land cleaning activities	 Lecture / discussion Demonstration Field Visits Video presentation Power point presentation Role playing Incomplete Worksheet 	 Demonstration Written examination Oral questioning Interview 	(Total-36 hrs) 1 hr
		 Identify tools, material and equipment Prepare tools, material and equipment 	 Lecture / discussion Demonstration Field Visits Video presentation Power point presentation Role playing Incomplete Worksheet 	 Demonstration Written examination Oral questioning 	1hr
		 Discuss OSHS PPE Practice OSHS 	 Lecture / discussion Demonstration Field Visits Video presentation Power point presentation Role playing Incomplete Worksheet 	 Demonstration Written examination Oral questioning 	1hr
		 Enumerate different machinery services Source out machinery 	Lecture / discussionDemonstration	DemonstrationWritten examination	2hrs

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Method	Nominal Duration
		services	 Field Visits Video presentation Power point presentation Research activity Incomplete worksheet Role playing 	Oral questioning	
		 Identify characteristics of a well prepared wetland rice and corn field Describe the activities of preparing/repairing dikes Prepare/ Repair dikes 	 Lecture / discussion Demonstration Field Visits Video presentation Power point presentation Research activity Incomplete worksheet 	 Demonstration Written examination Oral questioning 	9hrs
	2.2 Conduct tillage operations	 Discuss three tillage operations Apply appropriate tillage practices 	 Lecture / discussion Demonstration Field Visits Video presentation Power point presentation Role playing Incomplete Worksheet Hands-on 	 Demonstration Oral questioning Written examination Interview 	10 hrs
		Discuss OSHS PPE Practice OSHS	 Lecture / discussion Demonstration Field Visits Video presentation Power point presentation Research activity Incomplete worksheet 	 Demonstration Written examination Oral questioning 	1hr

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Method	Nominal Duration
	2.3 Perform post-tillage operations	 Enumerate activities of preparing dikes Repair dikes Discuss relevance of proper wastes disposal as post-operation activities Dispose wastes Explain procedures in completing transaction with machinery services Complete transaction Enumerate record keeping procedures Perform record keeping 	 Lecture / discussion Demonstration Field Visits Video presentation Power point presentation Research activity Incomplete worksheet 	 Demonstration Written examination Oral questioning 	11 hrs
3. Carry out crop establishment		 Discuss processes of seed soaking Demonstrate seed soaking Describe the procedures 	 Lecture / discussion Demonstration Video presentation Power point presentation Incomplete Worksheet Hands-on 	 Demonstration Written examination Oral questioning • Demonstration	(Total 70.5 hrs) 9 hrs
		of seed incubation Conduct seed incubation	 Demonstration Video presentation Power point presentation Incomplete Worksheet Hands-on 	Written examinationOral questioning	

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Method	Nominal Duration
		 Describe the features of germinated seeds Examine seeds for signs of germination 	 Lecture / discussion Demonstration Video presentation Power point presentation Incomplete Worksheet Hands-on 	 Demonstration Written examination Oral questioning 	1 hr
		 Enumerate procedures of transporting and handling of germinated seeds Handle and transport germinated seeds 	 Lecture / discussion Demonstration Video presentation Power point presentation Incomplete Worksheet Hands-on 	 Demonstration Written examination Oral questioning 	2 hrs
		 Identify areas to be checked on the field Check field for readiness for direct seeding 	 Lecture / discussion Demonstration Video presentation Power point presentation Incomplete Worksheet Hands-on 	 Demonstration Written examination Oral questioning 	5 hrs

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Method	Nominal Duration
		 Identify the corrective measure to be used based on the result of inspection Conduct corrective measures where necessary 	 Lecture / discussion Demonstration Video presentation Power point presentation Incomplete Worksheet Hands-on 	 Demonstration Written examination Oral questioning 	2hrs
		Differentiate manual direct seeding or broadcasting from mechanical seeding	 Lecture / discussion Demonstration Video presentation Power point presentation Incomplete Worksheet Hands-on 	 Demonstration Written examination Oral questioning 	11hrs
		 Explain PPE and its uses and functions Use appropriate PPE 	 Lecture / discussion Demonstration Video Power point presentation Incomplete Worksheet Hands-on presentation 	 Demonstration Written examination Oral questioning 	1hr
		 Identify different kinds of pests and their natural enemies Apply appropriate pests control measures 	 Lecture / discussion Demonstration Video presentation Power point presentation Incomplete 	DemonstrationWritten examinationOral questioning	2hrs

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Method	Nominal Duration
		 Identify the parts and functions of drum seeder Perform manual direct seeding or broadcasting- Apply mechanical direct seeding 	 Worksheet Hands-on Lecture / discussion Demonstration Video presentation Power point presentation Incomplete Worksheet 	 Demonstration Written examination Oral questioning 	8hrs
		 Enumerate post operation activities Conduct post-operation activities 	 Hands-on Lecture / discussion Demonstration Video presentation Power point presentation Incomplete Worksheet Hands-on 	 Demonstration Written examination Oral questioning 	5hrs
	3.3 Establish seedling for transplanting	 Identify tools and equipment to be used for sowing Prepare tools, materials and equipment to be used 	 Lecture / discussion Demonstration Video presentation Power point presentation Incomplete Worksheet Hands-on 	DemonstrationWritten examinationOral questioning	5hrs
		 Discuss industry standards in seedbed preparations Prepare seedbed 	 Lecture / discussion Demonstration Video presentation Power point presentation Incomplete Worksheet Hands-on 	DemonstrationWritten examinationOral questioning	

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Method	Nominal Duration
		Explain industry standards in sowingSow seeds	 Lecture / discussion Demonstration Video presentation Power point presentation Incomplete Worksheet Hands-on 	 Demonstration Written examination Oral questioning 	3hrs
		 Explain industry standards in seedbed and seedling management Apply seedbed and seedling management 	 Lecture / discussion Demonstration Video presentation Power point presentation Incomplete Worksheet Hands-on 	 demonstration written examination oral questioning 	5hrs
		 Elaborate OSHS and GAP for sowing Wear safety gears 	 Lecture / discussion Demonstration Video presentation Power point presentation Incomplete Worksheet Hands-on 	DemonstrationWritten examinationOral questioning	1.5hrs
		 Enumerate post operation activities Conduct post- operation activities 	 Lecture / discussion Demonstration Video presentation Power point presentation Incomplete Worksheet Hands-on 	 Demonstration Written examination Oral questioning 	5hrs
		Enumerate pre-	Lecture / discussion	Demonstration	5hrs

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Method	Nominal Duration
		transplanting procedures • Demonstrate pre- transplanting procedures	 Demonstration Video presentation Power point presentation Incomplete Worksheet Hands-on 	Written examinationOral questioning	
4. Manage crop growth	4.1 Conduct nutrient management	Identify / Define different assessment methods for soil fertility Assess soil fertility using recommended assessment method/s	 Lecture-discussion Hands-on Video presentation Demonstration Power point presentation Visual Aids Field activity on proper soil sampling 	DemonstrationWritten examOral questioningInterview	(Total - 105.5 hrs) 6 hrs
		 Differentiate organic fertilizers from Inorganic Fertilizers Identify different fertilizer formulations available in the locality Select appropriate kind of fertilizer 	 Lecture-discussion Video presentation Power point presentation 	DemonstrationWritten examOral questioningInterview	2 hrs
		 Determine way for computing fertilizer recommendations Compute for fertilizer rate 	Lecture-discussionVideo presentationPower point presentation	DemonstrationWritten examOral questioning	2 hrs

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Method	Nominal Duration
		 Enumerate the types and methods of fertilizer application Use knapsack sprayer Apply fertilizer according to recommendations 	 Video presentation Lecture discussion Power point presentation Demonstration Hands-on 	Written examOral questioningDemonstrationInterview	4 hrs
	4.2 Perform water management	 Identify water assessment methods Discuss the water requirements of the different growth stages Enumerate indicators of water stress Explain water requirements in different ecosystems Assess water need based on the result of assessment 	 Lecture Discussion Actual field visit and observation Power point presentation Demonstration Hands-on 	 Written exam Interview Demonstration Oral questioning 	4 hrs
		 Enumerate the types and methods of fertilizer application Use knapsack sprayer Apply fertilizer according to recommendations 	 Video presentation Lecture-discussion Power point presentation Demonstration Hands-on 	Written examOral questioningDemonstrationInterview	4 hrs
		 Identify and discuss different water management strategies Apply appropriate water management strategy/ies 	 Lecture discussion Field visit Demonstration Hands-on PPT presentation Video presentation 	Written examInterviewDemonstrationOral questioning	5hrs

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Method	Nominal Duration
		 Enumerate/Explain different water conservation methods and their applications Enumerate and describe different water impounding techniques Apply water conservation methods 	 Lecture-discussion Video presentation; Field visit Hands-on Demonstration 	Written examInterviewDemonstrationOral questioning	6 hrs
	4.3 Carry out pest management	 Identify different types of rice and corn pests and diseases Enumerate and discuss methods of assessing occurrence of pests and diseases Assess occurrence of pests and disease in the rice field and cornfield 	 Lecture-discussion Field visit/ observation PPT presentation Video presentation Demonstration Hands-on 	 Written exam Interview Demonstration Oral questioning 	7 hrs
		 Identify different management options for a particular pest/disease Explain GAP on rice and corn pests and diseases management Discuss IPM Classification/identification of harmful and beneficial insects Enumerate and explain FPA regulations on the use of chemicals Wear PPE and practice OSHS 	 Lecture-discussion Audio-visual aids video/power point presentations Field visit and observation Demonstration Hands-on 	Written exam Interview Demonstration Oral questioning	9 hrs

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Method	Nominal Duration
		 Apply pest and diseases management Discuss the importance of regular field monitoring using AESA and other damage assessment techniques Conduct regular field monitoring 	 Lecture-discussion Audio-visual aids video/power point presentations Field visit and observation Demonstration Hands-on 	 Written exam Interview Demonstration Oral questioning 	6 hrs
		 Identify extent of crop damages and yield losses Identify and apply the different preventive and control measures for occurrence of pests and diseases 	Lecture-discussion Audio-visual aids video/power point presentations Field visit and observation Demonstration Hands-on	Written examInterviewDemonstrationOral questioning	5 hrs
	4.4 Conduct management of Abiotic stress	Discuss the classification of abiotic stress strong winds extreme temperature drought flood/submergence nutrient deficiency/ toxicity salinity/acidity/ alkalinity Identify assessment techniques Assess presence of abiotic stresses	 Lecture-discussion Demonstration Video presentation Hands-on Field visit 	 Written exam Interview Demonstration Oral questioning 	9 hrs

Unit of Competency	Learning Outcomes	Learning Activities	Methodology	Assessment Method	Nominal Duration
		 Discuss different abiotic stress management Discuss use of knapsack sprayer Explain GAP on abiotic stress management Explain FPA regulations for abiotic stress management Wear PPE and practice OSHS Carry –out abiotic stress management 	 Lecture-discussion Demonstration Video presentation Hands-on Field visit 	 Written Exam Oral questioning demonstration 	9 hrs
		Discuss different remedial actions Explain importance of proper documentation Explain communication and coordination procedures Prepare sample damage/calamity report Carry-out remedial actions Apply for crop insurance claim	 Lecture-discussion Demonstration Video presentation Hands-on Field visit, Role play 	 Written Exam Interview Oral questioning demonstration 	4.5 hrs

4.5 Conduct purification activity	 Explain selection criteria Select area for seed purification activity 	Lecture-discussionVideo presentationField visit	Written ExamInterviewOral questioningDemonstration	1.5 hrs
	 Describe the characteristics of off-types Identify off-types in the field Explain/discuss the importance and proper timing of roguing Discuss roguing procedures Explain GAP for roguing Wear PPE and practice OSHS 5.9 Remove off-types 	 Lecture-discussion Demonstration Video presentation Hands-on Field visit, 	 Written Exam Interview Oral questioning demonstration 	10 hrs
	Enumerate disposal procedures remove and carry composting feeds for livestock remove and bury Discuss environmental rules and regulations Explain GAP on Agriwastes disposal Conduct proper disposal off-types	 Lecture discussion Field visit and observation Hands-on PPT presentation Demonstration 	 Written Exam Interview Oral questioning Demonstration 	5 hrs
	 Discuss harvest and post-harvest operations for seed production Practice OSHS 	Lecture-discussionVideo presentationHands-onField visit	Written ExamInterviewOral questioning	6.5 hrs

		 Prepare sample documentation and record keeping Conduct harvesting and post-harvesting operations for seed production activities 	Demonstration	Demonstration	
5. Conduct harvest and post- harvest operations	5.1 Carry out pre- harvest operations	Enumerate physiological indicators of rice and corn crops maturity Describe physical indicators of rice and corn crop maturity	 Lecture-discussion Power point presentation Visual aids Video presentation Practicum (Actual identification of physiological indicators in pictures) Lecture-discussion Power point presentation Visual aids 	Written examination Oral questioning	(Total -74 hrs) 2 hrs
		Discuss and describe agronomic characters of different rive varieties		Written examination Oral questioning	1hr

 Explain the importance of record keeping Identify the uses of different farm records verify records for harvesting 	 Lecture-discussion Video presentation Power point presentation Hands -on 	Written examinationOral questioningDemonstration	2.5hrs
 Describe weather condition and its effect on harvestable crop Explain Contingency Management Strategies for adverse weather condition Monitor weather condition 	 Lecture-discussion Power point presentation Illustrations Field demonstration/visit Photographs 	 Observation and oral questioning Written examination 	3hrs
 Explain recommended draining procedures before harvest including its importance Drain the rice and corn field 	 Lecture-discussion Power point presentation Field visit Hands-on Video presentation Hands- on 	 Written examination Oral questioning Demonstration 	5hrs
 Identify the type of obstructions in the field Remove obstructions from the rice and corn fields 	Power point presentationVideo presentationPracticum/ hands on	 Written examination Oral questioning Demonstration 	6.5hrs
 Identify the use of harvesting tools and materials Prepare the harvesting tools and materials 	Power point presentationVideo presentationPracticum/hands-on	Written examinationOral questioning	5hrs

5.2 Carry ou harvestir activity		 Lecture discussion Power point presentation Audio visual presentation Field visit with observation Demonstration Hands -on 	 Demonstration Written examination Oral questioning 	2.5hrs
	 Explain harvesting methods Discuss GAP for harvesting Implement appropriate harvesting methods 	 Lecture-discussion Video presentation Field visit/practicum Power point presentation Demonstration 	Written examinationOral questioningDemonstration	7.5hrs
	 Describe the types and procedures of pilling Pile harvested rice and corn 	 Lecture discussion Demonstration Power point presentation Video presentation Hands-on 	Written examinationOral questioningDemonstration	10 hrs
	Describe the recommended PPE for harvesting rice and corn	 Lecture discussion Demonstration Video/Power point presentation Field visit Hands- on 	Written examinationOral questioningDemonstration	5 hrs
5.3 Carry ou postharv activity	•	 Lecture-discussion Video/power point presentation Hands on Role playing Demonstration Field visit Visual aids 	 Written examination Oral questioning Demonstration 	2 hrs

 Identify the different postharvest equipment and facilities for rice and corn Describe the uses of the different postharvest equipment & facilities for rice and corn Enumerate causes of grain damage and yield losses Explain proper monitoring procedures on the use of postharvest equipment and operations Monitor the use and operation of the postharvest equipment and facilities 	 Lecture discussion Video/ power point presentation Practicum /hands on Field visit with observation Demonstration 	 Written examination Oral questioning Demonstration 	10hrs
 Describe appropriate storage area Discuss the procedures of storing and stacking Demonstrate proper storing and stacking bags of palay and milled rice and corn 	 Lecture-discussion Video/power point presentation Role playing Field visit Hands-on 	 Written examination Oral questioning Demonstration 	3.5 hrs
 Discuss handling and packaging of palay and milled rice FIFO Apply proper handling and packaging of palay and milled rice 	 Lecture discussion Video/power point presentation Hands – on Demonstration 	 Written examination Interview Demonstration Oral questioning 	2 hrs

 Describe the recommended practices in monitoring storage pests & diseases Monitor storage pests and diseases Prepare sample monitoring report Report infestation to proper authorities 	 Lecture discussion Video/power point presentation Practicum Demonstration Field visit 	 Written examination Interview Demonstration Oral questioning 	2 hrs
 Explain the principles of marketing Discuss various marketing strategies for palay, milled rice and corn 3Identify several market outlets for palay, milled rice and corn in the locality Negotiate with a palay and milled rice and corn trader Market palay and milled rice and corn 	 Lecture discussion Video/power point presentation Role Playing Demonstration 	 Written examination Interview Demonstration Oral questioning 	4.5 hrs