

## Matrixes of Relationship between Modules and Intended Learning Objectives (ILOs) of Agronomy Study Program

### a. Matrix of Modules – LO Knowledge Competence (KC)

	<b>LO-KC-1.</b> Mastering the theoretical concepts and being able to develop science and technology for the cultivation of food crops, plantations and horticulture based on local wisdom and resources	<b>LO-KC-2.</b> Mastering the theoretical concepts of plant cultivation problems and being able to manage and solve problems in the field	<b>LO-KC-3.</b> Mastering the theoretical concepts of sustainable and environmentally friendly plant cultivation management	<b>LO-KC-4.</b> Mastering theoretical concepts in the development of appropriate technology that is applicable in the community to increase agricultural production	<b>LO-KC-5.</b> Mastering the theoretical concepts of the latest science and technology development in plant cultivation that can be applied to the community
Pancasila					
Indonesian					
Mathematics	√				
Botany	√				
Agrochemicals	√				
Agroclimatology					
Introduction to agricultural science			√		
Introduction to agricultural economics					
Fundamentals of management			√		
Religion					
English					
Civics					
Genetics					√
Fundamentals of plant physiology		√			
Fundamentals of agronomy				√	
Fundamentals of soil science				√	
Rural sociology				√	
Plant growth regulator *				√	
Statistics	√				
Plant ecology		√			

Plant physiology			√		
Plant biochemistry					
Weeds science		√			
Fundamentals of seed science and technology	√				
Fundamentals of plant protection		√			
Soil fertility		√			
Experimental design			√		
Plant breeding					√
Annual crops cultivation	√				
Perennial crops cultivation	√				
Horticultural crops cultivation	√				
Plant nutrition		√			
Organic agriculture	√				
Hydroponics *					
Tissue culture *					
Farm management *					
Advanced annual crops cultivation	√		√		
Advanced perennial crops cultivation	√		√		
Vegetable crops cultivation	√				
Fruit crops cultivation	√				
Agricultural machinery and equipment	√				
Weeds control		√			
Plant biotechnology					√
Spice, medicinal and industrial crops cultivation *	√				
Ornamental plants cultivation *					
Irrigation and drainage *		√			
Fertilization and fertilizers technology *		√			
Research methods		√			









Fundamentals of soil science		√											
Rural sociology	√												
Plant growth regulator *							√						
Statistics													
Plant ecology				√									
Plant physiology	√												
Plant biochemistry	√												
Weeds science				√									
Fundamentals of seed science and technology	√												
Fundamentals of plant protection												√	
Soil fertility				√									
Experimental design				√					√				
Plant breeding	√												
Annual crops cultivation					√								
Perennial crops cultivation					√								
Horticultural crops cultivation					√								
Plant nutrition													
Organic agriculture	√												
Hydroponics *								√					
Tissue culture *													
Farm management *							√						
Advanced annual crops cultivation					√								
Advanced perennial crops cultivation					√								
Vegetable crops cultivation					√								
Fruit crops cultivation					√								
Agricultural machinery and equipment	√												
Weeds control				√									
Plant biotechnology		√						√					
Spice, medicinal and industrial crops cultivation *					√								

Ornamental plants cultivation *					√								
Irrigation and drainage *													√
Fertilization and fertilizers technology *								√					
Research methods					√					√			
Entrepreneurship			√	√		√		√					
Field study											√		
Advanced plant breeding *			√										
Seed production techniques *								√					
Swamp land agriculture *													√
Forest crops cultivation *					√								
Landscape architecture *								√					
Plant propagation *											√		
Community service program												√	
Field practice										√			
Research project			√						√	√			
Seminar												√	

**d. Matrix of Modules – LO Attitudes and Values (AV)**

	<b>LO-AV-1.</b> Faithful to God Almighty and capable of actualizing a religious attitude	<b>LO-AV-2.</b> Act as citizens who are proud and love their homeland, have nationalism and are responsible for the State and nation	<b>LO-AV-3.</b> Capable of contributing in improving the quality of life in society, nation and state based on Pancasila	<b>LO-AV-4.</b> Upholding human values based on morals and ethics	<b>LO-AV-5.</b> Capable of collaborating and have social sensitivity and concern for society and the environment	<b>LO-AV-6.</b> Respect the diversity of cultures, views, religions, and beliefs, as well as the opinions	<b>LO-AV-7.</b> Obey the law and discipline in social and state life	<b>LO-AV-8.</b> Capable of internalizing academic values, norms and ethics	<b>LO-AV-9.</b> Capable of internalizing the spirit of independence and struggle	<b>LO-AV-10.</b> Demonstrate a responsible attitude towards work in their area of expertise independently	<b>LO-AV-11.</b> Internalize the spirit of independence, struggle, and entrepreneurship
Pancasila		√	√			√					
Indonesian		√		√							
Mathematics							√				
Botany							√				
Agrochemicals							√				



Agroclimatology											
Introduction to agricultural science								√			
Introduction to agricultural economics					√						√
Fundamentals of management								√	√		
Religion	√					√					
English				√							
Civics			√				√				
Genetics								√			
Fundamentals of plant physiology								√			
Fundamentals of agronomy											
Fundamentals of soil science											
Rural sociology					√		√				
Plant growth regulator *								√			
Statistics								√			
Plant ecology								√			
Plant physiology											
Plant biochemistry								√			
Weeds science								√			
Fundamentals of seed science and technology								√			
Fundamentals of plant protection								√			
Soil fertility								√			
Experimental design								√			
Plant breeding								√			
Annual crops cultivation											
Perennial crops cultivation											
Horticultural crops cultivation											√
Plant nutrition								√			
Organic agriculture								√			
Hydroponics *								√			
Tissue culture *								√			

