

Matrixes of Relationship between ILO-SSC08 Bachelor Degrees of Agricultural Product Technology Study Programme

1.a. SSC08-ILO Knowledge Ability (KA) Matrix

	KA-01. Mastering the principles of chemistry and analysis of food and agricultural product	KA-02. Mastering the principles of microbiology and food safety	KA-03. Mastering the principles of engineering and processing of food and agricultural product	KA-04. Mastering the principles of applied sciences of food and agricultural product	KA-05. Mastering the principles of biochemistry of food and nutrition	KA-06. Having success skill (communication skills, critical thinking/problem solving, professional, long life learning, interaction, information acquisition, organizational and entrepreneurial skills)
SSC-01. know and understand the principles of natural sciences, social science, mathematics, medical science, economics and engineering their discipline is based on	▼					
SSC-02. have a coherent knowledge in their discipline including knowledge of the latest findings in their discipline		▼				
SSC-03. know concepts of identification and safeguarding of quality in their respective fields of work			▼			
SSC-04. know the essential legal regulations relating to their discipline				▼		
SSC-05. are aware of the further multidisciplinary context of agriculture, nutrition science, or landscape and neighboring fields					▼	

1.b. SSC08-ILO General Capability (GC) Matrix

<p>SSC-06. have the required knowledge and understanding to identify and formulate problems arising in agriculture, nutrition science, or landscape architecture (which may contain aspects stemming from areas other than their field of specialization)</p>	<p>▼</p>	<p>▼</p>	<p>▼</p>							
	<p>GC-01. Able to apply logical, critical, systematic, and innovative thinking in the context of the development or implementation of science and technology that pay attention to and applies humanities values in accordance with their field of expertise</p>	<p>GC-02. Able to demonstrate independent, quality, and measurable performance</p>	<p>GC-03. Able to examine the implications of developing or implementing science and technology that pay attention to and applies humanities values according to their expertise based on scientific principles, procedures and ethics in order to produce solutions, ideas, designs or art criticism</p>	<p>GC-04. Able to compile a scientific description of the results of the studies mentioned above in the form of a thesis or final project report, and upload it on the university website</p>	<p>GC-05. Able to make appropriate decisions in the context of solving problems in their area of expertise, based on the results of analysis of information and data</p>	<p>GC-06. Able to maintain and develop a network with supervisors, colleagues. Colleagues both inside and outside the institution</p>	<p>GC-07. Able to be responsible for the achievement of group work results and supervise and evaluate the completion of work assigned to workers under their responsibility</p>	<p>GC-08. Able to carry out the process of self-evaluation of the work group under their responsibility, and able to manage learning independently</p>	<p>GC-09. Capable of documenting, storing, securing, and retrieving data to ensure validity and prevent plagiarism</p>	<p>GC-10. Capable of making quick adaptation to working environment.</p>

SSC-07. are able to apply different methods orientated on fundamentals –such as mathematical, statistical, and experimental (laboratory) analysis					v	v				
SSC-08. are qualified to plan and conduct respectively suitable experiments, interpret the data, and draw conclusions					v					
SSC-09. are able to pursue literature searches in a targeted way and to use data bases and other sources of information				v					v	
SSC-10. are qualified to carry out assessments on the basis of comparisons with literature references and plausibility considerations					v					

1.c. SSC08-ILO Specific Capability (SC) Matrix

	<p>SC-01. Able to design agricultural product production process based on the application of technology principles and agricultural product processing in an effective, efficient, and precise manner so as to produce a well-standardized production process</p> <p>SC-02. Able to design the development of agricultural products that meet the quality criteria of agricultural products, are safe, nutritious and/or useful based on the principles of agricultural technology</p> <p>SC-03. Able to conduct research on the combination of operations for processing agricultural products, so that they can produce safe and quality agricultural products along the agricultural production chain, and can provide added value to agricultural products</p> <p>SC-04. Able to analyze problems with agricultural products technology approach in solving production problems and agricultural products so that they are efficient, safe, and with guaranteed quality</p> <p>SC-05. Able to design agricultural product packaging in order to protect and maintain product durability and quality, as well as safe, with informative labels for consumers in accordance with regulations and laws related to agricultural products</p> <p>SC-06. Able to provide added value to agricultural products with Indonesian characteristics, especially the Southern part of Sumatera with locally-based agricultural products and optimal utilization of Indonesia' s biological diversity through production processes that are safe, standardized, efficient, and effective</p>					
SSC-11. have the skills to solve practical problems				▼		
SSC-12. can combine theory and practice to solve subject specific practical problems			▼			
SSC-13. are able to select and apply suitable devices, processes, and methods	▼	▼			▼	▼
SSC-14. have developed an understanding of applicable techniques and methods and their limitations		▼			▼	
SSC-15. recognize the technical, health and safety, social, ecological, and legal implications of engineering practice in their field of scientific expertise		▼			▼	

SSC -16. can apply methods relevant for their profession	v	v			v	v
SSC -17. are aware of the usability and the restrictions of concepts and solution strategies				v		
SSC -18. can resort to experience with problems, topics, and processes relating to their scientific discipline				v		
SSC -19. are able to consult adequate literature and information sources and coordinate the work of experts			v			

