Matrix Correlation of ASIIN Subject Specific Criteria 08 (Agriculture, Forestry and Food Sciences) to ITN Intended learning Outcomes (ILOs)

ASIIN SSC 08		Description of SSC	Intended Learning Outcome (ILO)										
			Attitude & Behaviors (S)		Mastery in Sciences (P)		General Skills (KU)			Special Skills (KK)			
			1	2	3	4	5	6	7	8	9	10	11
Knowledge and Understanding	A1	Know and understand the principles of natural sciences, social science, mathematics, medical science, economics and engineering their discipline is based on			√								
	A2	Have a coherent knowledge in their discipline including knowledge of the latest findings in their discipline			√	√							
	A3	Know concepts of identification and safeguarding of quality in their respective fields of work				√							
	A4	Know the essential legal regulations relating to their discipline				√							
	A5	Are aware of the further multidisciplinary context of agriculture, nutrition science, or landscape and neighboring fields			√	√							
Engineering Analysis	B1	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)			√			√					
	B2	Are able to apply different methods orientated on fundamentals –such as mathematical, statistical, and experimental (laboratory) analysis			√	√	√	√					
	B3	Are qualified to plan and conduct respectively suitable experiments, interpret the data, and draw conclusions					√	√					
Investigations	C1	Are able to pursue literature searches in a targeted way and to use data bases and other sources of information			√		√						
	C2	Are qualified to carry out assessments on the basis of comparisons with literature references and plausibility considerations					√	√		√			
Engineering Practice	D1	Have the skills to solve practical problems						√	√	√			
	D2	Can combine theory and practice to solve subject-specific practical problems						√	√	√			
	D3	Are able to select and apply suitable devices, processes, and methods							√	√			
	D4	Have developed an understanding of applicable techniques and methods and their limitations								√			
	D5	Recognize the technical, health and safety, social, ecological, and legal implications of engineering practice in their field of scientific expertise		√							√		
	D6	Can apply methods relevant for their profession;						√	√		√	√	√
	D7	Are aware of the usability and the restrictions of concepts and solution strategies;									√	√	√
	D8	Can resort to experience with problems, topics, and processes relating to their scientific discipline										√	√

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	D9	Are able to consult adequate literature and information sources and coordinate the work of experts						√				√	√
Social Competences	E1	Are able to work efficiently on their own and as team members	√				√						
	E2	Are qualified to apply different methods to communicate effectively with the scientific community and the society as a whole		√			√						
	E3	Feel obliged to act in accordance with professional ethics and the responsibilities and standards of practical engineering	√						√				
	E4	Are aware of the methods of project management and business practices such as risk and change management and understand their limitations								√			
	E5	Recognize the necessity of independent life-long learning and are qualified to do so;		√									
	E6	Depending on the professional field they have competences in the fields of management and marketing, in particular project management, acquisition, personnel management, controlling etc								√	√	√	√
	E7	Are adequately competent in the area of communication, e.g., Presentations or moderation.					√		√				

Intended learning Outcomes (ILO) of ITN

Code	Intended Learning Outcomes (ILO)
	Attitude and Behaviour
1	Demonstrate a religious attitude and uphold human values in carrying out duties based on religion, morals, and ethics.
2	Participate actively in enhancing the quality of life in society and the nation.
	Knowledge
3	Understand the function of various soils as natural resources, planting media, ecological subsystems, and resources.
4	Master the knowledge of land and environmental resource management based on the latest and most innovative technologies to support sustainable agriculture and the environment.
	General Skills
5	Able to apply logical, critical, and innovative thinking in the context of implementation and development of science and technology in accordance with the field of expertise in soil science and land resource management.
6	Able to identify, plan, design, evaluate, and solve problems appropriately regarding soil management, land resources, and the environment.
7	Able to demonstrate independent and entrepreneurial performance in the field of soil science to support sustainable agriculture.
	Specific Skills
8	Able to apply knowledge about soil formation and development, as well as soil investigation techniques.
9	Able to diagnose nutrients visually and in a laboratory and able to make fertilizer recommendations.
10	Able to apply soil and water conservation technology based on the principles of sustainable agriculture.
11	Able to apply geospatial technology and land mapping surveys and regional development.