

SSC-LO Interaction Matrixes of Plant Protection Study Programme

a. SSC-LO of Knowledge (K) Matrix

	K-1. Mastering theoretical concepts of plant protection comprising the causal agents, symptoms, influencing factors, yield losses, and control techniques.	K-2. Mastering theoretical concepts of the exploitation of bio-resources to be used as main components of environ-mental friendly pest management system	K-3. Mastering theoretical concepts of agricultural ecosystem management as parts of environmentally friendly pest management system	K-4. Mastering theoretical concepts of appropriate and environmentally friendly pesticide application.	K-5. Mastering theoretical concepts of domestic and international plant quarantine	K-6. Being cooperative, sensitive and responsive to the society and environment.
SSC-01. know and understand the principles of natural sciences, social science, mathematics, medical science, economics and engineering their discipline is based on	H					
SSC-02. have a coherent knowledge in their discipline including knowledge of the latest findings in their discipline		H				
SSC-03. know concepts of identification and safeguarding of quality in their respective fields of work			H			
SSC-04. know the essential legal regulations relating to their discipline					H	

SSC-05. are aware of the further multidisciplinary context of agriculture, nutrition science, or landscape and neighboring fields.				H		

b. SSC-LO of General Skill (GS) 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>H</p>	<p>H</p>	<p>H</p>							
<p>SSC-07. are able to apply different methods orientated on fundamentals – such as mathematical, statistical, and</p>					<p>H</p>	<p>H</p>				
	<p>GS-01. Capable of implementing logical, critical, systematic, and innovative thinking in the concept of development or implementation of knowledge and technology reflecting and concerning human values, in accordance with</p>	<p>GS-02. Capable of showing qualified and measurable self-performance.</p>	<p>GS-03. Capable of researching the implication implementation of knowledge and technology reflecting and concerning human values, in accordance with his/her expertise, based on scientific nature, procedure and ethics, in order to formulate solution, suggestion, design or art criticism.</p>	<p>GS-04. Capable of formulating scientific description based on the result of abovementioned research in the form of script or final assignment report and uploading the work to the university website.</p>	<p>GS-05. Capable of making accurate decision in the context of problem solution in his/her expertise, based on the results of information and data analyses.</p>	<p>CGS-06. Capable of maintaining and developing network with supervisor, colleagues, and workmates, both inside and outside his/her institutions.</p>	<p>GS-07. Capable of being responsible for the achievement of working group and conducting supervision as well as evaluation of the accomplishment of works assigned to workers under his/her responsibility.</p>	<p>GS-08. Capable of conducting self-evaluation of working group under his/her responsibility and capable of managing learning process by his/herself.</p>	<p>GS-09. Capable of documenting, saving, and protecting data, and regaining the data to assure the authenticity and to prevent plagiarism</p>	<p>GS-10. Capable of making quick adaptation to working environment.</p>

experimental (laboratory) analysis										
SSC-08. are qualified to plan and conduct respectively suitable experiments, interpret the data, and draw conclusions					H					
SSC-09. are able to pursue literature searches in a targeted way and to use data bases and other sources of information				H					H	
SSC-10. are qualified to carry out assessments on the basis of comparisons with literature references and plausibility considerations					H					

SSC-14. have developed an understanding of applicable techniques and methods and their limitations									H						
SSC-15. recognize the technical, health and safety, social, ecological, and legal implications of engineering practice in their field of scientific expertise											H				
SSC-16. can apply methods relevant for their profession												H	H	H	H
SSC-17. are aware of the usability and the restrictions of concepts and solution strategies			H												
SSC-18. can resort to experience with problems, topics, and processes relating to their scientific discipline											H				
SSC-19. are able to consult adequate literature and information sources and coordinate the work of experts												H			

d. SSC-LO of Attitude and Norm (AN) Matrix

	AN-1. Believing in God the Almighty, and is capable of showing religious attitude	AN-2. Upholding human values while on duty, based on religion, moral and ethics	AN-3. Contributing to the improvement of life quality at the society, nation and state levels, and to the advancement of civilization based on Pancasila	AN-4. Playing an important role as a citizen who is proud and loves the country, has spirit of nationalism and responsibility to the nation and state.	AN-5. Respecting to the diversity of culture, insight, religion, belief, and other people's originality.	AN-6. Being cooperative, sensitive and responsive to the society and environment.	AN-7. Complying with the law and discipline in living under society and state.	AN-8. Internalizing academic values, norms and ethics. Showing attitude of personal responsibility for the works under his/her expertis	AN-9. Showing attitude of personal responsibility for the works under his/her expertis	AN-10. Internalizing the spirit of self-confidence, exertion and entrepreneurship.	AN-11. Caring about the safety of food crop products from pesticide contamination
SSC-20. Graduate are able to work efficiently on their own and as team members									H		
SSC-21. Graduate are qualified to apply different methods to communicate effectively with the scientific community and the society as a whole				H		H					
SSC-22. feel obliged to act in accordance with professional ethics and the responsibilities and standards of practical engineering	H				H		H	H			H
SSC-23. are aware of the methods of project management and business practices such as risk and change management and understand their limitations		H									
SSC-24. recognize the necessity of independent life-long learning and are qualified to do so			H	H							

SSC-25. depending on the professional field they have competences in the fields of management and marketing, in particular project management, acquisition, personnel management, controlling etc									H		
SSC-26. are adequately competent in the area of communication, e.g. presentations or moderation											H