

Appendix 14. suitability of education gained with the field of work

Chemical Curriculum Fulfillment Survey on Competencies of Graduates of the Undip FSM Chemistry Study Program

I. Learning outcomes for study program graduates

Question	Is indispensable	Required	Not required
Attitude			
Applying values and attitudes according to Pancasila	93.3%	4.4%	2.2%
Carry out tasks based on religion, morals and ethics	97.8%	2.2%	
Demonstrate a responsible attitude towards work in their area of expertise independently	95.6%	4.4%	
Obedying the law and discipline in social and state life dan	82.2%	17.8%	
General Skills			
Able to think logically, critically, systematically, creatively and innovatively	88.9%	11.1%	
Able to show performance carefully, diligently, and responsibly	91.1%	8.9%	
Have the ability to develop science and follow the latest technological developments	80%	20%	
Able to work independently or together in a team	93.3%	6.7%	
Special skill			
Able to analyze, solve problems and produce conclusions related to science and technology in general and simple chemistry fields such as identification, analysis, isolation, transformation, and synthesis of micro-molecules through the application of knowledge of	66.6%	26.7%	6.7%

structure, properties, kinetics, and energetics of molecules and systems chemistry, with analysis and synthesis methods in specific chemical fields, then apply them according to the relevant technology			
Able to use software to determine the structure and energy of micromolecules, software to assist analysis and synthesis in general or more specific chemical fields (organic, biochemical, or inorganic), and for data processing (analytical chemistry).	55.5%	37.8%	6.7%
Knowledge Mastery			
Mastering the theoretical concepts of structure, properties, changes, kinetics, and energetics of molecules and chemical systems, identification, separation, characterization, transformation, synthesis of micromolecular chemicals and their application	55.5%	35.6%	8.9%
Mastering operational knowledge of general chemical instruments and the basic principles of software for analysis, synthesis, and molecular modeling in general or more specific chemical fields.	55.5%	37.8%	6.7%
Is the chemistry study curriculum in accordance with the competencies needed in the world of work?	33.3%	66.7%	

Complete data :

https://docs.google.com/spreadsheets/d/1GswWi5GZ0OnST0OITKLy9lxdMqtI_RqnhXxW9YvD7M8/edit?resourcekey#gid=553856898