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# THE COMPETENCIES FOR THE FORMATION OF THE FUTURE SPECIALIST OF SUSTAINABILITY EDUCATION

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Based on several years of research focused on comparing existing domestic professional education programs and European best practices, it was concluded that a critical problem in professional education in Ukraine is the underestimation of the importance of developing some ey and professional competencies. The experience of the best European programs allows for identifying such essential competencies for forming the future specialist of sustainability education and organisation of training by the principles of sustainable development.

An analysis of existing practices of fifteen European universities, the UN report on education, science and culture (UNESCO) on learning objectives related to the goals of sustainable development [1] and scientific publications of leading European experts [2-4] was done to determine the list of competencies. Five key, one general and two professional competencies forming a basis of European educational practices were identified. In contrast, they are not currently formulated as individual competencies in the educational programs of Ukraine.

The results of the analysis are given in Table 1. This list of competencies is not universal but is formed to teach students in professional education.

Table 1 – The competencies for sustainability education

1 able 1 – The competencies for sustainability education	
Competence. Definition	Most common descriptors
General competency	
Creativity. Ability to envision, develop, implement, and assess transformative interventions for sustainability	Reshape, criticise, analyse, take a decision, critically interpret text/information, show initiative, create, synthesise, integrate, change, propagate
Professional competencies	
Compassionate communication.  Ability to 1) communicate with others without accusing, to hear criticism, and have constructive dialogue, 2) to communicate to reduce conflicts and improve relationships between people, 3)	Communicate, understand the role of communication and social processes in making sustainable decisions, demonstrate strategies for effective interviewing and successful transmission of personal and professional statements when it comes to sustainability, respond, explain, understand,



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Competence. Definition	Most common descriptors
to understand the influence of your communications on your and other life	help, discuss, promote, categorise, perform, present, report, elect
Responsive project management.	Demonstrate leadership skills, organise
Ability to use the tools necessary for the	teamwork, perform individually assigned
effective implementation of projects and	work carefully, efficiently and on time, know
programs appropriately and to ensure	project approaches to increase the
positive change management and effective communication	sustainability of the organisation/processes, determine project types, plan and initiate,
Communication	develop, adhere to, use, compare, defend,
	summarise, integrate
Key competencies	
Systems-Thinking Competence (including Futures-, Values- and Strategies-Thinking). Ability to 1) apply modelling and complex analytical approaches, 2) carry out or construct simulations, forecasts, scenarios, and visions, 3) identify, map, specify, negotiate, and apply sustainability values, principles, and goals, 4) construct and test viable strategies (action plans) for interventions, transitions, and transformations toward sustainability	Understand, identify, describe, analyse sustainability challenges and problems, complex issues, relationships, impacts, structures, unintended consequences, feedback loops, context, interactions across different domains (environmental, social, economic), scales (local to global), and perspectives (interdisciplinary).  Anticipate, foresight, envision, craft, analyse, and evaluate long-term future consequences, scenarios and visions regarding intergenerational equity, future generations, uncertainty.  Identify, assess, negotiate, reconcile, reflect on, map, apply sustainability principles, morals, norms, ethics, goals, integrity, justice, conflicts, trade-offs.  Design, create, develop, test transformative, innovative, viable, feasible interventions.
	transitions, strategies, action plans, solutions,
	considering barriers, inertia, path dependence
Implementation Competence. Ability to put sustainability strategies	Implement, enact, adapt, manage, transfer, scale action plans, strategies, change plans,
(action plans) into action, including	intervention plans, governance initiatives,
implementation, adaptation, transfer and	etc.
scaling, in practical and efficient ways	
Intrapersonal Competence.	Enable, motivate, facilitate interdisciplinary,
Ability to avoid personal health challenges	transdisciplinary, cross-cultural collaboration
and burnout in advancing sustainability	in teams and among stakeholders through
transformations through resilience-oriented self-care (awareness and self-regulation)	listening, compassionate communication, negotiation, conflict resolution, empathic
sen-care (awareness and sen-regulation)	leadership, etc
Interpersonal Competence.	Reflect, motivate, have respect for, be
Ability 1) to collaborate successfully in	responsible, be empathetic, self-care for
inter-disciplinary and professional teams;	identity, commitment, feelings, burnout,
and 2) to involve diverse stakeholders, in	personal boundaries, limits of capacity, etc



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Competence. Definition	Most common descriptors
meaningful and effective ways, in advancing sustainability transformations.	
Integration Competency. Ability to apply collective problem-solving procedures to complex sustainability problems: 1) to develop viable sustainability strategies (action plans); and 2) successfully implement them in collaborative and self-caring ways	Develop, apply, promote, make decisions to advance sustainability by using viable, equitable, and inclusive solution processes, procedures, frameworks, schemes, etc

Employers of future specialists joined the discussion of the competencies of sustainable development specialists. In October 2021, a panel discussion was held. The meeting was attended by the representatives of the clothing industry cluster, business leaders, representatives of technological universities of three European countries and Ukraine. Prospects for the development of educational programs for bachelors and masters and the possibility of applying EU practices in the activities of Ukrainian manufacturers of the clothing industry were discussed.

Thus, the main functions of future specialists in sustainable production and how EU practices meet the needs of local stakeholders were consulted. Practical requirements for future specialists were formulated.

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