### **APPROVED**

by Resolution No. SPN-43 of 17 October 2023 of the Senate of Vilnius University

### THE CONCEPT OF INTERDISCIPLINARY STUDIES AT VILNIUS UNIVERSITY

### CHAPTER I GENERAL PROVISIONS

- 1. Modern society faces complex global challenges and problems that require solutions arising from the coherence of expertise and practical knowledge in different areas. To address such social and technological challenges, it is no longer sufficient to have specialised knowledge which is primarily present at universities that have long fostered the autonomy of disciplinary cognition. Sustainable societal development requires crossing the boundaries of individual academic disciplines and expanding the interdisciplinary competencies of university researchers and graduates; in professional activities, the relevance of the aforementioned competencies is steadily increasing.
- 2. Vilnius University (hereinafter the 'University'), with a strategic focus on growing influence in society and the state, recognises the importance of interdisciplinarity in studies and research, and undertakes to create incentives for interdisciplinary cooperation in the academic community, promote links between different fields of research and the development of interdisciplinary studies. The University aims to steadily develop teaching and learning that links different disciplines; a broad cognition of sciences, cultures and societies; high-level theoretical and practical skills; a commitment to personal and societal responsibility; the ability to apply knowledge to solve problems and challenges requiring complex solutions.
- 3. Interdisciplinarity is a systematic collaboration between different disciplines of scientific cognition, emphasising the links between different study fields in the context of the content of studies and enabling solving complex problems while maintaining the requirements for each of these fields. Interdisciplinary competencies fall under the general competencies of Vilnius University graduates, developed in an interdisciplinary environment. This Concept of Interdisciplinary Studies at Vilnius University (hereinafter the 'Concept') defines the concept of the content of interdisciplinary study programmes and course units (modules), study objectives, competencies, learning outcomes, applied study and assessment methods, and the principles of organisation and quality assurance.
- 4. The provisions of interdisciplinary studies defined in the Concept shall be based on the existing practice of interdisciplinarity at the University and the good practices of foreign universities. The implementation of the provisions of the Concept will encourage smooth and consistent development of interdisciplinary studies at the University, contribute to the recognition of existing interdisciplinary practice in studies, strengthening of interdisciplinary communities and developing graduates who are able to make complex decisions and become future leaders of society.
- 5. The Concept stems from the University's long-term vision to implement interdisciplinary studies leading to a qualification degree in interdisciplinary studies. The University acknowledges that the current national regulation of studies, which subordinates interdisciplinarity to the requirements of the main (dominant) discipline, does not ensure full development of interdisciplinary competencies and their recognition, and therefore needs to be reviewed. After the changes in the legal requirements for the implementation of interdisciplinary studies, the provisions for their implementation should also be changed at the University.
  - 6. Key terms used in the Concept:
  - 6.1. **Interdisciplinary studies course unit (module)** a course unit (module) that combines two or more disciplines in study objectives, teaching and assessment methods and expected learning outcomes;
  - 6.2. **Interdisciplinary study programme** a first or second cycle study programme linking two or more disciplines to achieve the learning outcomes of the main (dominant)

discipline and interdisciplinary studies. The General Requirements for the Provision of Studies, approved by Order of the Minister of Education and Science of the Republic of Lithuania No. V-1168 of 30 December 2016 "On the Approval of the Description of the General Requirements for the Provision of Studies" (as subsequently amended), shall be applied to interdisciplinary study programmes <sup>1</sup>.

7. Other terms used in the Concept shall be understood as they are defined in the legal acts of the Republic of Lithuania and the University.

## CHAPTER II THE OBJECTIVE, COMPETENCIES AND ASSESSMENT OF INTERDISCIPLINARY STUDIES

- 8. The objective of interdisciplinary studies is to develop the interdisciplinary competencies of students needed to bring together knowledge, skills and abilities of different fields of science and apply them in solving complex problems and acting in undefined real-life situations. The University's interdisciplinary studies develop the following interdisciplinary competencies:
  - 8.1. **recognition of interdisciplinary perspectives**, demonstrated by the ability to justify the need for different disciplines to solve complex problems, the knowledge of terms, cognitive assumptions, and research methods of these disciplines, the ability to apply them, along with consistent and clear presentation of the research findings;
  - 8.2. **focused and innovative thinking**, demonstrated by the ability to harmonise theoretical and methodological approaches of different sciences with the aim of achieving a unified understanding of a complex phenomenon, recognising one's biased disciplinary perspective and seeing other perspectives of cognition as part of the problem-solving process, as well as the ability to think creatively and not avoid the risk of error in unfamiliar situations and when faced with challenges;
  - 8.3. **collaboration**, demonstrated by trust and respect towards disciplinary cognitive practices and different positions of team members; it involves openness and effort to understand a common goal that goes beyond the boundaries of a single discipline or world-view;
  - 8.4. **communication in an interdisciplinary team**, the ability to formulate, give and accept feedback, provisions of other scientific cognition perspectives; the ability to explain, in an understandable way, the scientific knowledge, concepts and terms of the studied field to colleagues with experience in another field of study;
  - 8.5. **critical reflection**, which involves a conscious analysis of the experience of interdisciplinary action in order to advance learning and improve, as well as assessing the impact of proposed solutions on society and the limitations of solutions.
- 9. The objectives, learning outcomes, content and process of the University's interdisciplinary study programmes and/or interdisciplinary studies course units (modules) must be consistent with the objective of interdisciplinary studies.
- 10. The competencies developed during interdisciplinary studies are consistent with the general competencies of graduates, approved by Resolution of the Senate of Vilnius University No. SPN-46 of 21 September 2021 "On the Approval of the List of General Competencies of Vilnius University Graduates".
- 11. In interdisciplinary studies, formative and summative<sup>2</sup> assessment methods are most often applied. For the assessment of interdisciplinary competencies, it is recommended to use rubrics

<sup>&</sup>lt;sup>1</sup> The term of interdisciplinary studies used in the Concept corresponds to the term of interdisciplinary studies laid down in the Description of the General Requirements for the Provision of Studies.

<sup>&</sup>lt;sup>2</sup> Formative assessment is applied to determine the learner's progress, provide feedback on their learning and development opportunities. This assessment method aims at learning efficiency; it is associated with the continuous assessment of learning outcomes, whereas feedback allows the learner to understand the learning aspects to be improved. Summative

(scoring tables) (Annex to the Concept), which explain what learning outcomes the student shall demonstrate at the threshold, typical, or excellent levels.

- 12. The assessment applied in interdisciplinary studies is in accordance with the principles established in the Vilnius University Study Regulations and other University documents regulating studies.
- 13. Research works developing interdisciplinary competencies (written works, projects, final theses and/or applied works, etc.) must be oriented towards the achievement of interdisciplinary learning outcomes and ensure comprehensive complex-decision-making and/or the understanding of complex phenomena analysed.
- 14. Interdisciplinary studies course units (modules) are completed by taking an examination assessing the achievement of the learning outcomes of studies of different fields (or by preparing a project). The final assessment of learning outcomes in a course unit (module) may be a cumulative grade, calculated in accordance with the proportions established in the description of the course unit (module).
- 15. Interdisciplinary study programmes are completed by preparing an individual or group final thesis (project) focused on the learning outcomes of studies of different fields. Final theses and compulsory professional internship (in first cycle studies) must link the main field of the interdisciplinary study programme with at least one other relevant field (or at least two equivalent fields). When the final thesis is prepared by a group of students, their input shall be assessed individually.

## CHAPTER III THE STRUCTURE OF INTERDISCIPLINARY STUDIES

- 16. The interdisciplinary study programme must comply with the provisions of Chapter II of this Concept. The interdisciplinary study programme must consist of at least two different yet linked disciplines, one of which is considered to be the main (dominant) and must correspond to the learning outcomes set out in the description(s) of the study field(s).
- 17. In the first cycle interdisciplinary study programmes with a scope of 180, 210 or 240 study credits (hereinafter the 'credits'), at least one-third of study programme credits shall be allocated to interdisciplinary studies course units (modules) and the preparation of the final thesis.
- 18. In the second cycle interdisciplinary study programmes with a scope of 90 or 120 credits, at least half of the study programme credits shall be allocated to interdisciplinary studies course units (modules) and the preparation of the final thesis.
- 19. The scope of an interdisciplinary studies course unit (module) carried out as a course unit (module) of individual studies shall be equivalent to the multiple of 5 credits.

# CHAPTER IV THE IMPLEMENTATION AND QUALITY ASSURANCE OF THE INTERDISCIPLINARY STUDY PROGRAMME

- 20. Interdisciplinary study programmes shall be prepared and approved in accordance with the provisions of the Description of the Procedure for the Development, Implementation and Improvement of Study Programmes at Vilnius University. The objective of the interdisciplinary study programme and the learning outcomes must highlight the links between the fields that the programme includes.
- 21. Interdisciplinary study programmes shall be carried out in cooperation of the core academic units of the University (hereinafter the 'Units') operating under the Agreement on the

assessment is used to sum up and summarise the learning outcomes of learners. Using the conclusions of the summative assessment, learners can judge their progress, but unlike the formative assessment, their learning outcomes cannot be adjusted. (Gedvilienė, Stasiūnaitienė, and Teresevičienė. *Mokymosi pasiekimų vertinimas*. Vytautas Magnus University.)

Implementation of the Interdisciplinary Study Programme. The Agreement on the Implementation of the Interdisciplinary Study Programme shall define the distribution of the functions of the development, organisation, implementation, administration, quality assurance, and representation of the study programme in the Study Programme Committee (hereinafter the 'Committee') between the Units. The agreement shall also specify the total number of members of the Committee and the number of members delegated to the Committee by each of the Units. In cases where a Unit carries out studies in more than one field and is developing an interdisciplinary study programme at the Unit, such agreement is not concluded.

- 22. At the beginning of the implementation of the interdisciplinary study programme, a Study Programme Committee for that study programme shall be established. The representatives of each Unit implementing the programme, except for student representatives, shall be approved by a resolution of the Council of the said Unit upon a proposal from the head of the said Unit. The Chairman of the Committee shall be approved by the Council of the Unit that is implementing the main (dominant) field of the programme. When the composition of the Committee changes, the change shall be approved by the Council of the Unit whose representative is being replaced.
- 23. The Unit implementing the main (dominant) study field shall be considered the coordinating Unit of the interdisciplinary study programme.
- 24. The quality assurance of interdisciplinary study programmes is carried out in accordance with the Regulations of the Study Programme Committee of Vilnius University and the Description of the Procedure for the Development, Implementation and Improvement of Study Programmes at Vilnius University. The coordinating Unit and the Committee shall be responsible for the quality of the interdisciplinary study programme being implemented.

# CHAPTER V THE IMPLEMENTATION AND QUALITY ASSURANCE OF INTERDISCIPLINARY STUDIES COURSE UNITS (MODULES)

- 25. Interdisciplinary studies course units (modules) shall be identified according to their compliance with at least one of the following criteria for the implementation of studies:
  - 25.1. the implemented interdisciplinary studies course units (modules) are taught by a lecturer who, during the course unit (module), links the perspectives of different scientific disciplines in order to gain the cognition of real-world problems;
  - 25.2. the implemented interdisciplinary studies course units (modules) are taught by a group of lecturers whose members represent different science fields and develop different skills of scientific cognition or work with information;
  - 25.3. the implementation of teamwork by students representing different disciplines focused on solving complex real-world problems is ensured.
- 26. The interdisciplinary studies course unit (module) shall be developed and implemented by a lecturer or a group thereof. When the interdisciplinary studies course unit (module) is developed and implemented by a group of lecturers, a coordinating lecturer shall be appointed.
- 27. The lecturer appointed as the coordinator of the interdisciplinary studies course unit (module) shall be responsible for:
  - 27.1. high-quality development of the description of the interdisciplinary studies course unit (module);
  - 27.2. linking the content of different fields in the interdisciplinary studies course unit (module) to achieve its objectives and learning outcomes;
  - 27.3. coordination of the work of the team of lecturers who teach the interdisciplinary studies course unit (module);
  - 27.4. the implementation quality and timely updating of the interdisciplinary studies course unit (module);

- 27.5. the final assessment of the students' works, the provision of feedback to students, and other activities relevant to the implementation of the interdisciplinary studies course unit (module).
- 28. The Council of the Unit of the lecturer coordinating the interdisciplinary studies course unit (module) shall consider the developed interdisciplinary studies course unit (module) intended to be proposed as a course unit of individual studies and shall take one of the decisions:
  - 28.1. approve the implementation of the interdisciplinary studies course unit (module) and submit it to the Commission of Interdisciplinary Studies Experts (hereinafter the 'Commission') established by a decree of the Rector of the University or their authorised Pro-Rector;
  - 28.2. approve the implementation of the interdisciplinary studies course unit (module) with comments and submit it to the Commission for consideration;
  - 28.3. not to approve the implementation of the interdisciplinary studies course unit (module) and return it to the coordinating lecturer for improvement.
- 29. Upon the Council of the Unit that coordinates the interdisciplinary studies course unit (module) approving a new interdisciplinary studies course unit (module) intended to be offered as a course unit of individual studies, the Head of the Unit (or their authorised person) shall submit the following via the University document management system to the Study Quality Subdivision of the Study Quality and Development Division of the University (hereinafter the 'Study Quality Subdivision'):
  - 29.1. an extract from the Minutes of the meeting of the Council of the Unit;
  - 29.2. a description of the interdisciplinary studies course unit (module);
  - 29.3. a list of all lecturers intended to teach the interdisciplinary studies course unit (module) with links to their profiles published on the University's website.
- 30. After evaluating the coherence of the objectives and the learning outcomes, the teaching methods and the assessment methods of the interdisciplinary studies course unit (module) submitted, the Study Quality Subdivision shall provide the Commission with a description of this course unit (module) and its annexes. The Commission, upon evaluating whether the submitted description of the interdisciplinary studies course unit (module) complies with the provisions of this Concept, shall adopt one of the following decisions:
  - 30.1. approve the description of the interdisciplinary studies course unit (module);
  - 30.2. approve the description of the interdisciplinary studies course unit (module) with comments;
  - 30.3. not to approve the description of the interdisciplinary studies course unit (module) and return it to the Unit for improvement.
- 31. The interdisciplinary studies course unit (module) approved by the Commission shall be entered in the Register of Interdisciplinary Course Units (Modules) (hereinafter the 'Register'). An unapproved interdisciplinary studies course unit (module) shall be returned for improvement to the Unit that submitted it.
- 32. The coordinating lecturer shall be responsible for the implementation of the interdisciplinary studies course unit (module) and the quality of its content, whereas the Unit coordinating the course unit (module) shall be responsible for the organisation and administration.
- 33. The quality monitoring of the interdisciplinary studies course unit (module) implemented as a course unit (module) of individual studies not in a study programme shall be carried out by the Commission. Quality monitoring shall include:
  - 33.1. regular monitoring of the interdisciplinary studies course unit (module) performed every two years, evaluating the feedback of students on this course unit (module), the learning outcomes (assessments) of students, and the comments of the lecturer coordinating the course unit (module);
  - 33.2. the submission of proposals for the improvement of the interdisciplinary studies course unit (module) to its coordinating lecturer.

- 34. Data for quality monitoring of the interdisciplinary studies course unit (module) implemented as a course unit (module) of individual studies shall be collected from the University Study Information System (VUSIS) and aggregated by the Study Quality Subdivision.
- 35. The Commission, having assessed the quality monitoring data of the interdisciplinary studies course unit (module) carried out as a course unit (module) of individual studies, may take a decision to remove the option of choosing this course unit (module) in the Register.

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Annex to the Concept of Interdisciplinary Studies at Vilnius University

### COMPETENCIES DEFINING INTERDISCIPLINARY THINKING OF STUDENTS

The interdisciplinary thinking of students shall be defined by the following competencies:

- 1. **Recognition of interdisciplinary perspectives,** demonstrated by the ability to justify the need for different disciplines to solve complex problems, the knowledge of terms, cognitive assumptions, and research methods of these disciplines, the ability to apply them, along with consistent and clear presentation of the research findings;
- 2. **Focused and innovative thinking**, demonstrated by the ability to harmonise theoretical and methodological approaches of different sciences with the aim of achieving a unified understanding of a complex phenomenon, recognising one's biased disciplinary perspective and seeing other perspectives of cognition as part of the problem-solving process, as well as the ability to think creatively and not avoid the risk of error in unfamiliar situations and when faced with challenges;
- 3. **Collaboration**, demonstrated by trust and respect towards disciplinary cognitive practices and different positions of team members; it involves openness and effort to understand a common goal that goes beyond the boundaries of a single discipline or world-view;
- 4. **Communication in an interdisciplinary team,** the ability to formulate, give and accept feedback, provisions of other scientific cognition perspectives; the ability to explain, in an understandable way, the scientific knowledge, concepts and terms of the studied field to colleagues with experience in another field of study;
- 5. **Critical reflection,** which involves a conscious analysis of the experience of interdisciplinary action in order to advance learning and improve, as well as assessing the impact of proposed solutions on society and the limitations of solutions.

COMPETENCY	THRESHOLD LEVEL OF LEARNING OUTCOMES	TYPICAL LEVEL OF LEARNING OUTCOMES	EXCELLENT LEVEL OF LEARNING OUTCOMES
Recognition of interdisciplinary perspectives	<ul> <li>The complexity of the problem is not properly defined, the need for an interdisciplinary approach is not justified.</li> <li>The insights of the main field are described too superficially and/or some basic concepts are missing.</li> </ul>	- The relevance of the chosen fields for the analysis of the complex problem	<ul> <li>The problem analysed is complex, it is properly justified via a literature review, and the problem's relevance to society is presented.</li> <li>The analysis of the complex problem involves an in-depth examination of</li> </ul>

	<ul> <li>The choice of one or more fields for the analysis of a complex problem is questionable and/or there is a lack of important insights from fields relevant to the problem.</li> <li>Insights are presented in an inconsistent and imbalanced way; there is a lack of definition of key concepts in different fields.</li> </ul>	<ul> <li>Some of the field insights are well developed, yet the remaining ones should be analysed in more depth.</li> <li>The presented scientific terms of different fields are not always clearly explained; a more coherent and balanced presentation of insights should be sought.</li> </ul>	the insights, assumptions and context of different fields.  In the analysis of a complex problem, the terms and concepts of different fields are clearly defined, indicating why it involves the knowledge of several science fields.  The most important fields related to the complex problem analysed are properly emphasised, indicating why other fields are not examined.
Focused and innovative thinking	<ul> <li>There is a lack of openness to the ideas and beliefs of other fields.</li> <li>There is no critical assessment of the bias of the assumptions of the analysed field.</li> <li>The problem-solving process barely involves other perspectives.</li> <li>Only standard ideas based on traditional solutions are offered.</li> </ul>	<ul> <li>The ideas and beliefs of other fields are reviewed superficially.</li> <li>The analysis is not free from personal attitude and beliefs.</li> <li>The perspectives of other fields are considered to be insufficiently relevant to the analysed problem.</li> <li>Opportunities of other fields are to some extent considered in the search for non-standard solutions.</li> </ul>	<ul> <li>The insights and beliefs of other fields are critically assessed, paying additional interest thereto.</li> <li>The bias of the personal attitude and the limitations of the main field are perceived.</li> <li>The perspectives of other fields are seen as part of the problem-solving process.</li> <li>Opportunities of other fields are creatively combined to offer non-traditional solutions and create new, original ideas.</li> </ul>
Collaboration	<ul> <li>Collaboration is sporadic (excessive or insufficient initiative is demonstrated).</li> <li>The rules of effective teamwork are known, but only some of the interdisciplinary team members' competencies are trusted.</li> </ul>	<ul> <li>The opinions of other members of the interdisciplinary team are listened to but the information provided is not absorbed.</li> <li>The rules of effective teamwork are known and most of the interdisciplinary team members' competencies are trusted.</li> </ul>	<ul> <li>The opinions of other members of the interdisciplinary team are listened to objectively, evaluating the perspectives of different fields.</li> <li>The rules of effective teamwork are known and all of the interdisciplinary team members' competencies are trusted.</li> </ul>

	<ul> <li>Feedback is provided to others, but the comments from the team members are accepted unenthusiastically.</li> <li>Compromise-seeking between the members of an interdisciplinary team is present, maintaining normal environment that does not invoke psychological stress.</li> <li>Division of work and tasks is carried out in the team.</li> <li>There is a lack of tolerance towards the opinions and ideas of other members of the interdisciplinary team, but conflict situations are avoided.</li> </ul>	<ul> <li>Feedback is provided to others properly; comments from other interdisciplinary team members are accepted.</li> <li>Compromise-seeking between the members of an interdisciplinary team is present; the tasks in stressful situations are distributed properly.</li> <li>The opinions of other members of the interdisciplinary team are objectively evaluated and properly responded to in order to make decisions suitable for all interested parties.</li> </ul>	<ul> <li>Constructive feedback is provided to others; comments from other interdisciplinary team members are accepted and taken into account.</li> <li>In order to solve the complex problem analysed, compromise is sought with other members of the interdisciplinary team, setting clear goals and priorities, highlighting essential values, and supporting other team members.</li> <li>The opinions of other members of the interdisciplinary team and their impact on the work are objectively evaluated, they are effectively responded to, and a way to solve problems that interfere with the joint work is sought.</li> </ul>
Communication in an interdisciplinary team	<ul> <li>The knowledge of different fields about the complex problem analysed is not properly explained to the audience.</li> <li>Different opinions are listened to but are too critically judged.</li> <li>The insights are not properly explained to other team members.</li> <li>Personal assumptions and conclusions are not always formulated clearly.</li> </ul>	<ul> <li>The accumulated knowledge of different fields is transferred to the audience, assessing their level of preparation.</li> <li>Different opinions are listened to; ideas suggested by others are considered.</li> <li>The complex problem analysed and personal insights are not presented to team members in sufficient detail.</li> <li>Personal assumptions and conclusions are formulated without full justification.</li> </ul>	<ul> <li>The accumulated knowledge of different fields is effectively transferred to the audience, having assessed their level of preparation.</li> <li>Different opinions are listened to by objectively evaluating the ideas presented and the possibilities of their implementation.</li> <li>Complex problems analysed are presented to other members of society together with one's own insights.</li> </ul>

			- The conclusions are drawn reasonably in both written and oral form.
Critical reflection	<ul> <li>The reflection is limited to the learning experience possessed.</li> <li>The reflection barely emphasises the societal impact of the solution to the complex problem.</li> <li>The possible limitations of the proposed solution to the problem are barely addressed.</li> </ul>	- The reflection does not describe in detail the societal impact of the	<ul> <li>The reflection provides information on the challenges faced during the stages of the process and the teaching and learning outcomes.</li> <li>The reflection describes in detail the societal impact of the solution to the complex problem and provides an effective plan for its solution.</li> <li>The possible limitations of the proposed solution to the problem and possible strategies for the solution thereof are clearly indicated.</li> </ul>