Accreditation Report

Cluster "Computer Science"

European University Kyiv

Reference Number IP-1033-1

24th Meeting of the ZEvA Commission on 5 June 2025

Agenda item 04.03

Study Programme	Degree	Programme Duration	Type of Programme	ECTS Credits
Software Engineering	BA	46 months	Full-Time / Part-Time	240
Computer Sciences	BA	46 months	Full-Time / Part-Time	240
Computer Sciences	MA	17 months	Full-Time / Part-Time	90
Computer Sciences	PhD	48 months	Full-Time / Part-Time	40
Cybersecurity	BA	46 months	Full-Time / Part-Time	240
Cybersecurity	MA	17 months	Full-Time / Part-Time	90

Accreditation contract signed on: 11 January 2024

Date of site visit: 19 February 2025

Contact person at the higher education institution: Prof. Dr. Serhii Yagodzinskyi, Vice-Rector for Educational Affairs, European University, Kyiv, Ukraine

ZEvA project manager: Dr. Alrik Thiem

Expert Panel:

Representation of Higher Education Institutions

- Prof. Dr. Natalie Coull, Head of Department of Cybersecurity and Computing; Abertay University, UK
- Prof. Dr. Martin Lange, Professor of Theoretical Computer Science and Formal Methods; Faculty of Electrical Engineering and Computer Science; University of Kassel, Germany
- Prof. Dr. Nicole Ondrusch, Professor of Applied Computer Science and Digital Transformation; Heilbronn University of Applied Sciences, Germany

Representation of Professions

- Dr. Gerhard Tobermann, Oracle Germany, Munich

Representation of Students

- Mr. Sören Rempel, Student Computer Science (B.Sc.), University of Oldenburg

Hanover, 29 April 2025

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I. Final Vote of the Expert Panel and Decision of the ZEvA Commission

1. Decision of the ZEvA Commission (5 June 2025)

The ZEvA Commission follows the experts' report and recommendations and acknowledges the university's response to the accreditation report dated 9 May 25.

The ZEvA Commission decides to accredit the following six degree programmes offered by European University without conditions for a period of six years:

1. *Software Engineering* *Bachelor*
2. *Computer Sciences* *Bachelor*
3. *Computer Sciences* *Master*
4. *Computer Sciences* *PhD*
5. *Cybersecurity* *Bachelor*
6. *Cybersecurity* *Master*

This decision is based on the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG), the Framework of Qualifications of the European Higher Education Area and the recommendations of the ECTS Users' Guide as referred to in the ZEvA Manual for the External Assessment of Study Programmes.

2. Central Findings and Final Vote of the Expert Panel

2.1 Central Findings of the Experts: Executive Summary

The expert panel agrees that the overall concept and profile of the University as a private institution of higher education is convincing and well-integrated. During the online accreditation talks, it became apparent that the level of motivation and engagement across all levels of hierarchy at the University, from management over faculty to students, is very high. In particular, student satisfaction levels are high due to a number of aspects that support a student-centred approach: mentoring programmes help weaker students, a broad curriculum ensures that students can pick courses that fit their individual study plans, a general technical infrastructure and infrastructure for distance learning that meets all requirements of the respective programme and the personal life situation of students, the possibility to attend courses both offline and online, and student support services that are geared towards the needs of students. Moreover, staff development opportunities are extensive and well-used, and thus also contribute to an improvement of the teaching and learning experience of students.

The only condition that the expert panel initially issued concerned the weight of the thesis of the Bachelor's and the Master's programmes in the accreditation cluster, both of which were valued at 3 ECTS credit points. The expert group emphasized that the weight of the thesis as the culmination of a programme of higher education has to reflect the acquisition of the knowledge and skills associated with the respective qualification level as stipulated in the European Qualifications Framework. The expert group thus issued the condition that the weight of the thesis be raised from 3 ECTS credit points to at least 15 ECTS credit points on the Master's level and to at least 6 ECTS credit points on the Bachelor's level. Thereafter, on 27 March 2025, the Council of the European University approved updated versions of programmes 1 – 5, with thesis credits having been raised to 6 ECTS at the Bachelor's level and 15 ECTS at the Master's level. The expert panel therefore considers its original condition fulfilled.

The expert panel issues a number of remarks, short of recommendations, that should help European University improve and develop their programmes in the future:

1. Some module titles suggest that modules are the same or very similar even though their content varies. The University may want to consider revising these module titles.
2. The student numbers of female students in the programmes to be accredited are relatively low. The University may want to increase its efforts to attract more females.
3. The University may want to continue to make sure that staff have sufficient resources to carry out research.
4. The University may want to continue to ensure that programme outcomes and student competences remain aligned with national industry needs.

2.2 General Aspects

2.2.1 General Recommendations:

No general recommendations issued

2.2.2 General Conditions:

No general conditions issued

2.3 Programme 1: Software Engineering (Bachelor)

2.3.1 Recommendations:

No specific recommendations issued

2.3.2 Recommendation to the ZEvA Commission:

The expert group recommends the accreditation of programme 1 "Software Engineering (Bachelor)" for the duration of six years without conditions.

2.4 Programme 2: Computer Sciences (Bachelor)

2.4.1 Recommendations:

No specific recommendations issued

2.4.2 Recommendation to the ZEvA Commission:

The expert group recommends the accreditation of programme 2 "Computer Sciences (Bachelor)" for the duration of six years without conditions.

2.5 Programme 3: Computer Sciences (Master)

2.5.1 Recommendations:

No specific recommendations issued

2.5.2 Recommendation to the ZEvA Commission:

The expert group recommends the accreditation of programme 3 "Computer Sciences (Master)" for the duration of six years without conditions.

2.6 Programme 4: Computer Sciences (PhD)

2.6.1 Recommendations:

No specific recommendations issued

2.6.2 Recommendation to the ZEvA Commission:

The expert group recommends the accreditation of programme 4 "Computer Sciences (PhD)" for the duration of six years without conditions.

2.7 Programme 5: Cybersecurity (Bachelor)

2.7.1 Recommendations:

No specific recommendations issued

2.7.2 Recommendation to the ZEvA Commission:

The expert group recommends the accreditation of programme 5 "Cybersecurity (Bachelor)" for the duration of six years without conditions.

2.8 Programme 6: Cybersecurity (Master)

2.8.1 Recommendations:

No specific recommendations issued

2.8.2 Recommendation to the ZEvA Commission:

The expert group recommends the accreditation of programme 6 "Cybersecurity (Master)" for the duration of six years without conditions.

II. Evaluation Report of the Expert Panel

1. Introduction: Purpose, Design and Context of the Accreditation Procedure

In January 2024, European University Kyiv commissioned the Central Evaluation and Accreditation Agency Hanover (ZEvA) with the external quality assessment and international accreditation of the six study programmes in the field of computer science. For this purpose, the agency assembled a panel of five experts from inside and outside academia, including a student expert.

The assessment was conducted according to the criteria laid out in the "ZEvA Manual for the External Assessment of Study Programmes". This assessment framework is fundamentally based on the "European Standards and Guidelines for Quality Assurance in Higher Education (ESG)" (ENQA 2015), the "Framework for Qualifications for the European Higher Education Area" (2005) and the "ECTS Users' Guide" (European Communities, 2015).

This report is based on the experts' desktop validation of the university's self-report and on the outcomes of the online accreditation talks with faculty, staff and students on 19 February 2025.

The accreditation report serves as a basis for the ZEvA Commission to decide on the accreditation of the study programmes, and as a source of information for the general public as regards the quality and the accreditation status of the programmes.

2. Introduction: Profile and Mission of the University

European University has been founded in 1991 by the Tymoshenko family. The University is a member of the Association of Private Educational Institutions of Ukraine. It focuses on educational activities, offering preschool education, primary education, basic secondary education, specialized secondary education, professional pre-higher education as well as higher education at the bachelor's, master's, and doctoral levels. The University conducts its educational activities across various cities in Ukraine and has established branch campuses in Kryvyi Rih, Lviv, Mykolaiv, Rivne, Uman, Cherkasy, Pyriatyn, Odesa, Poltava, Varash, and Vinnytsia.

On the highest level, European University offers education in 17 specialties and 26 study programs at the bachelor's level, 13 specialties and 26 study programs at the master's level, and 8 specialties and 8 educational-scientific programs at the doctoral level. All study programs are accredited in accordance with Ukrainian national legislation. As of 2024, 6,031 students have been enrolled, including 662 in the Junior Bachelor's programs, 3,471 in the Bachelor's programs, 907 in the Master's programs and 991 in the doctoral programs. The University's hosts scientific schools in the following areas: Financial and Economic Regulation of the Economy; Development Strategies for the Economic Potential of Agro-Industrial Enterprises; Quality Management in the Development of Industrial Enterprises; Information and Software Support, Mathematical Modelling of Complex Systems; Economic Security of Enterprises.

According to its mission statement, European University seeks to contribute to societal development through research, the generation and dissemination of new knowledge, and the preparation of competitive professionals and creative individuals. It pursues this mission by focusing on the following strategic goals:

- Establishing the University as a leading national centre for research, education, and innovation.
- Ensuring personal and professional growth for students by developing competencies that enhance the competitiveness of graduates both in Ukraine and globally.
- Fostering the comprehensive development of the creative potential within the University's academic and teaching staff.
- Building the University's reputation as an international educational and research centre.
- Promoting the development of bright individuals who are active members of society and patriots of Ukraine.
- Creating modern infrastructure and a management system designed to ensure the University's effective operation.

The University's study programmes cover the humanities, and socio-economic and professionally oriented specialized disciplines. Graduates are expected to develop modern economic thinking and a high level of general education and culture. They should possess fundamental knowledge in the humanities, strong theoretical training in their chosen field, and a deep understanding of both the theory and practice of business operations in a market economy. Furthermore, graduates should be capable of independently and competently addressing tasks related to their functional duties, continuing their education autonomously, and continuously expanding their knowledge within their chosen specialty.

3. Assessment of the Study Programmes

3.1 General Aspects

3.1.1 Intended Learning Outcomes

European University has developed programme competencies and intended learning outcomes for all six study programmes within the cluster. Programme competencies are categorized into three groups: integral competence, general competencies, and specialized competencies.

The integral competence of a study programme is the key competence that represents a generalized result of mastering all other competencies embedded in the study programme. According to the University, it reflects a graduate's ability to apply knowledge, skills, and other competencies in real-life and professional situations. The general competencies of a study programme are comprised of the knowledge, skills, abilities, and value orientations that are necessary for a wide range of professions and life situations. These help graduates adapt to various professional environments, communicate with colleagues, solve problems, and continue learning throughout life. The specialized competencies of a study programme consist of specific knowledge, skills, abilities, and professional qualities required to perform tasks in a particular field or profession. These competencies are closely related to the specific specialization of the study programme and reflect the aspects of professional training necessary for carrying out professional activities.

The intended learning outcomes of the Bachelor programmes are designed to provide a graduate with: advanced knowledge and comprehensive understanding of the fundamental principles and theories in computer science, cybersecurity, algorithms, data structures, software engineering, databases, and computer networks, involving a critical understanding of theories and principles; advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in the field of computer sciences. Graduates should be able to manage complex technical or professional activities or projects, take responsibility for decision-making in unpredictable work or study contexts; take responsibility for managing professional development of individuals and groups in the fields of computer sciences, cybersecurity, and software engineering.

Intended learning outcomes of the Master's programs (Computer Sciences, Cybersecurity) are designed to provide a graduate with highly specialized knowledge, some of which is at the forefront of knowledge in the field of computer sciences and cybersecurity. Graduates should be able to demonstrate original thinking, and critical awareness of knowledge issues in the field of computer sciences, cybersecurity, and at the interface between different fields. Intended learning outcomes include specialized problem-solving skills required in research and/or innovation in order to develop new knowledge and procedures in commuter sciences and cybersecurity and to integrate knowledge from different fields. Graduates should be able to manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches; take responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams.

Intended learning outcomes of the PhD programme in computer sciences are designed to provide a graduate with knowledge at the most advanced frontier of a field of work or study and at the interface between fields. Intended learning outcomes are also designed to provide graduates with advanced

and specialized skills and techniques, including synthesis and evaluation, required to solve critical problems in research and/or innovation and to extend and redefine existing knowledge or professional practice in the field of computer sciences. Graduates should demonstrate substantial authority, innovation, autonomy, scholarly and professional integrity and sustained commitment to the development of new ideas or processes at the forefront of computer sciences including research.

Each study programme within the cluster includes two matrices (see supplementary material folder 1). The first illustrates the alignment of competences with the educational components (courses), the second the alignment of intended learning outcomes with the educational components (courses). The intended learning outcomes are also reflected in the syllabus of each course. Mandatory courses are designed to develop all the competencies and learning outcomes specified in the higher education standard. For elective courses, which must constitute at least 25% of the total study programme in accordance with the Law of Ukraine on Higher Education, the learning outcomes are determined autonomously by the University and are reflected in the syllabi of the elective courses. All intended learning outcomes included in the study programmes correspond to specific levels of the European Qualifications Framework for the European Higher Education Area (FQ-EHEA), as well as the National Qualifications Framework of Ukraine (NQF).

According to the University, the intended learning outcomes of its six study programmes in computer science also include preparing students for active citizenship and supporting their personal development. For instance, students are educated on the societal impacts of technology, including issues related to privacy, security, and the ethical use of data. Through courses that touch on the social and economic impacts of computing, as well as extracurricular activities like hackathons focused on social good, students are also encouraged to engage with societal challenges and use their skills to contribute to community and civic initiatives. Another core competency the University puts an emphasis on in this connection is the ability to engage in lifelong learning. This involves not only staying updated with technological advancements but also continuously developing personal and professional skills. The programs foster a mindset of continuous improvement and self-directed learning.

Last, but not least, according to the report of the University, its programmes place a strong emphasis on the development of soft skills such as communication, teamwork, critical thinking, and leadership, skills that are essential for personal growth and effective collaboration in diverse environments. In an increasingly interconnected world, the University's programmes also seek to incorporate elements that enhance cultural sensitivity. By integrating all these elements into the learning outcomes, the University aims to produce graduates who are not only technically proficient but also socially responsible and personally well-developed individuals.

3.1.1.1 Experts' Appraisal

The expert reviewer group confirms that all six programmes are designed with overall programme objectives that are in line with the institutional strategy of European University. The intended learning outcomes are made explicit and reflect the overall programme objectives. The respective qualification resulting from each of the six programmes is clearly specified and communicated, and refers to the correct level of the national qualifications framework for higher education. The intended learning

outcomes also include the future role of graduates in society and the personal development of students.

3.1.2 Structure and Content of the Study Programmes

3.1.2.1 General Features

The ECTS (European Credit Transfer and Accumulation System) key features, including the awarding of credits for achieved learning outcomes, are applied throughout the six study programmes. Credits are awarded based on the successful achievement of the intended learning outcomes for each course within the programme. Students earn ECTS credits only when they have demonstrated that they have met the specific learning objectives associated with that part of the curriculum, whether through assessments, practical work, or other forms of evaluation. All programmes are designed in accordance with standard ECTS guidelines, where one academic year corresponds to 60 ECTS credits, reflecting a total student workload of 1,500 to 1,800 hours per year.

Bachelor's programmes in Software Engineering, Computer Sciences, and Cybersecurity award 240 ECTS credits; Master's programmes in Computer Sciences and Cybersecurity 90 ECTS credits, and the PhD programme in Computer Sciences 40 ECTS credits. The amount of ECTS credits for each educational component is presented in chapter 3.2.2 – 3.7.2. Each course or module is assigned a certain number of ECTS credits that correspond to the workload required to achieve the learning outcomes. Typically, 1 ECTS credit represents 30 hours of total student effort, including contact hours, independent study, and assessment activities. For courses that last from one semester to one year, the number of ECTS credits is usually 3 to 5. There are also longer courses that span 3 to 4 semesters, which typically carry 8 to 10 ECTS credits. Internships usually award 15 or more ECTS credits. Additionally, credits are awarded for the successful completion of the thesis.

According to the University, the curriculum of each programme in the cluster is structured to progressively build the necessary knowledge, skills, and competencies required to achieve the intended learning outcomes. Core courses are strategically placed at the beginning of the programmes to establish a strong foundation, while more advanced and specialized courses are introduced in later semesters. Elective courses constitute at least 25% of the students' workload, allowing each student to shape their educational trajectory by enhancing specific skills, abilities, and knowledge.

The allocation of credits for elective courses at all three levels of higher education is strictly regulated by the Law on Higher Education of Ukraine and must be no less than 25%. For the bachelor's programmes in Software Engineering, Computer Science, and Cybersecurity, elective courses account for 60 ECTS credits. For the master's programmes in Computer Science and Cybersecurity, elective courses account for 25 ECTS credits, representing 27.7 percent of the total credits. For the PhD programme in Computer Sciences, elective courses account for 10 ECTS credits.

The catalogue of elective courses is updated annually and developed based on proposals from the university's departments. The decision to include a course in the catalogue is made by the Academic Council. Once the catalogue of elective courses for the academic year is formed, the faculty offices inform students about the list of elective courses, the procedure for selecting and studying them, and

provide annotations to the content of the elective courses. They also organize meetings with instructors from the relevant departments and offer consultations on any questions related to choosing a particular course.

By the end of the second week of the first semester of each academic year, students submit applications to the faculty dean's office, selecting courses from the catalogue of elective courses for study in the following academic year. Based on the analysis of students' applications, the dean's office forms study groups for the selected elective courses. Students may be denied the choice of a course if the number of students who selected the course is less than 25 for the Bachelor's degree level, 20 for the Master's degree level, and 15 for the PhD level.

3.1.2.2 Course Catalogues

The programme-specific course catalogues can be found in chapters 3.2.2 – 3.7.2.

3.1.2.3 Internationalisation, Recognition and Mobility

The University has developed policies on academic mobility for both students and faculty, as outlined in the "Regulation on Academic Mobility and Recognition of Learning Outcomes Obtained in Other Higher Education Institutions" (see supplement 14). These policies define the organization of academic mobility and regulate the rules for credit transfer and recognition of learning outcomes. Academic mobility is conducted based on agreements with other higher education institutions. The University's policies specify that mobility can be either national or international.

Student academic mobility involves short-term study at another university. Within the framework of academic mobility programmes, students are enrolled in partner universities and, for the duration of their studies there, have the rights and obligations of participants in the educational process of the respective partner institution. All credits earned during studies abroad or through virtual mobility, as agreed upon in the Learning Agreement and confirmed by an academic transcript, must be transferred and do not require additional assessment.

During the period of academic mobility at a partner institution in Ukraine or abroad, students retain their place of study at European University. In addition to mandatory courses at the partner institution, students have the right to select additional courses, which must be authorized by the University.

The policy for the transfer of learning outcomes obtained at other higher education institutions, outside the framework of academic mobility programs, is outlined in the University's policy on the credit transfer system of the educational process. Credit transfer can be carried out through the recognition of credits earned by students while studying in other educational programs. The transfer of credits obtained during studies in other educational programs is conducted based on a written request from the student and is approved by the head of the relevant structural unit of the University, typically the Dean of the Faculty. The basis for credit transfer includes documents related to previously obtained education (diploma supplement, academic transcript), or an extract from the academic record in cases of concurrent studies in multiple programs.

When a transfer request is submitted by a person who previously studied at another higher education

institution, the University reviews the documentation of the previously obtained education and determines the number of educational components and learning outcomes that can be recognized (transferred). The volume of uncredited educational components at the time of admission must not exceed 20 ECTS credits. Any uncredited educational components and learning outcomes form the student's "academic difference". The student is required to make up this academic difference by completing the specified educational components within six months, according to the established schedule.

The University also has policies for the recognition of learning outcomes acquired through non-formal and informal education. The policy is outlined in Regulations on the recognition of learning outcomes acquired in non-formal/informal education (see supplement 15). The recognition of such learning outcomes applies to both mandatory and elective educational components, except for diploma projects, internships, and final attestation.

To initiate the procedure, a student submits her or his application to the Dean of the Faculty. Along with the application, the student must provide documentation that directly or indirectly confirm the acquisition of learning outcomes obtained through non-formal or informal education (if available). Based on the application and supporting documents, the Dean of the Faculty assigns a faculty member to conduct an interview with the student. The purpose of the interview is to establish whether the relevant learning outcomes have been achieved. Based on the interview results, the possibility of recognizing the educational component or its part as a result of non-formal or informal education is determined. The application for the validation of learning outcomes, along with the accompanying documents signed by the faculty member and the Dean, is submitted to the Vice-Rector for Academic Affairs of the University for final approval.

Students are informed about the policies for transferring learning outcomes obtained at other higher education institutions and for recognizing learning outcomes acquired through non-formal and informal education. According to the University, these policies are available on its website and are also explained to students by faculty members. All graduates also receive an appropriate diploma that certifies the qualification obtained, including a diploma supplement that meets all requirements. Sample of diplomas and diploma supplements have been provided by the University (see supplementary material folder 5).

Faculty members may also exercise their right to academic mobility in accordance with the terms of an academic mobility programme agreement. Their primary position at the University is retained for up to one year while participating in the programme.

3.1.2.4 Experts' Appraisal

The expert reviewer group agrees that all formal prerequisites to allow for students' academic mobility are in place. The procedures for the recognition of higher education qualifications, periods of study and prior learning, including the recognition of non-formal and informal learning, are fair and transparent. Students receive appropriate documentation that explains the qualification gained, including achieved learning outcomes and the context, level, content and status of the studies that were pursued and successfully completed.

3.1.3 Teaching Faculty

According to the self-assessment report of the university, hiring and selection of the faculty members at European University are conducted in accordance with the "Regulations on the Selection and Hiring of Academic Staff" (see supplement 17), which are based on the Laws of Ukraine "On Higher Education" and "On Education" as well as the "Labour Code of Ukraine" and the University Charter. The regulations outline the procedures for hiring and the competitive selection of candidates for vacant academic positions at the University, including professors, associate professors, senior lecturers, and lecturers.

The selection process is conducted in stages. First, vacant positions are announced on the University's website. Applications are then accepted and applicants' CVs are reviewed to ensure compliance with the requirements of the announced vacancy. Subsequently, the professional level of candidates is assessed and final selection is made through a voting procedure.

The selection procedure is organized by a selection committee, which is formed by a decree of the Rector. The selection committee consists of a chairperson, a secretary, and committee members. The main functions of the selection committee include receiving documents from candidates and verifying that the submitted documents meet all requirements. Applicants for positions of professors, associate professors, senior lecturers and lecturers must hold at least a Master's degree and meet all relevant professional requirements. The required level of professionalism for academic staff involved in the educational process within study programs is validated by their relevant academic degrees, titles, scientific publications, teaching experience, and practical work experience in their specific field.

The selection of faculty members is conducted through voting at a meeting of the selection committee. The decision of the selection committee is considered valid if at least two-thirds of the committee members participate in the voting. A candidate is considered elected if they receive more than percent of the votes from the committee members present. The decision serves as the basis for signing a contract with the selected candidate and for their employment.

Deans and Heads of Departments are appointed to their positions without a competitive selection process and can be dismissed from their roles by the University Rector. The contract term for Deans and Heads of Departments is determined by the University Rector.

According to its self-assessment report, all departments of the University have a sufficient number of faculty members to ensure the effective functioning of the study programs under consideration. Academic staff possess the appropriate education and significant achievements in their professional and scientific fields. Teaching within the study programs is provided by academic staff with more than three years of experience and a high level of scientific and professional engagement. The professional activities of the faculty meet the requirements of national legislation, specifically the Licensing Requirements for Educational Activities.

Faculty members are active researchers, as evidenced by their participation in annual scientific and practical conferences, including international ones, and by their publications in professional and international journals indexed in prominent databases such as Scopus and Web of Science. All faculty

members, in accordance with their scheduled plans, also undergo internships at other universities or participate in professional courses offered by online platforms, such as Coursera, or at IT companies.

Over the past 5 years, the university's faculty members have published 74 individual and collective monographs, 38 textbooks and teaching manuals, 438 scientific articles in professional journals (including 74 in journals indexed in international scientific databases such as Scopus), and 840 conference abstracts. In 2024, European University ranked 132nd among 300 higher education institutions in Ukraine according to the Scopus ranking.

The University also offers free professional development courses for its faculty. It organizes training sessions, master classes, roundtable discussions, seminars, and scientific-practical conferences. Events conducted for University faculty to enhance their qualifications in the past have included:

- Webinar by DAN.IT Education: "How to Start Your Career in DevOps"
- Professional Development Course: "Innovative Methods and Practices in Education: Intelligent Systems and Digital Technologies"
- Roundtable Discussion: "International Systems of Higher Education"
- Webinar: "The Concept of 'Transparent Universities' and Academic Integrity"
- Professional Development Course: "Digital Transformation in Higher Education"
- Training on the use of tools for workflow automation.

3.1.3.1 Experts' Appraisal

The experts are convinced that European University has appointed a sufficient number of qualified teaching faculty. In the course of the online talks, the experts have also gained the impression that the programme profits from a highly motivated team. Processes for staff recruitment and conditions of employment appear transparent and fair, and follow clear regulations. All lecturers hold appropriate academic qualifications. Opportunities for professional development of teaching staff are offered and utilized. The expert group was also pleased to see that the University encourages scholarly activities of staff to strengthen the link between research and education, particularly at the master's and PhD level. Staff support students and encourage them to attend national and international conferences, to publish work and to take part in competitions.

3.1.4 **Infrastructure, Resources and Student Support**

3.1.4.1 General Infrastructure on Campus

The infrastructure and resources of the University, including lecture halls, laboratories, classrooms, computer labs, and the library meet the requirements of national legislation. The classrooms are equipped with all the necessary hardware and software, and there is unlimited Internet access throughout the university premises.

The university library currently holds a collection of 88,516 items. Of these, the collection of educational literature consists of 60,788 items, while the collection of scientific literature includes

27,728 items. In addition, the collection of literature in digital format includes: 17,675 records of books and compilations, 951 records of dissertations and dissertation abstracts, 14,829 records of periodicals, and 1,337 electronic publications (serving as a full-text database of books). The integrated library information system allows for the entry of new acquisitions, information retrieval, cataloguing, and classification of various types of information carriers. It also facilitates the subscription to periodicals, the creation of literature lists and indexes, and the publication of informational bulletins on new arrivals. The university also operates an institutional repository, which hosts the scientific and educational-methodical works of the university's academic staff, materials from scientific-practical conferences, and collections of scientific works from European universities.

A "Cyber Polygon" training lab has been established for students, designed to simulate cyberattack defence scenarios and enhance the qualifications of future cybersecurity professionals. The "Cyber Polygon" is also used for conducting scientific research in the field of cybersecurity, for developing new methods and technologies for cyber defence, and for increasing awareness of cybersecurity among students and faculty. The University also operates a Robotics and UAV (Unmanned Aerial Vehicles) laboratory. In accordance with a contract with the Scientific and Production Enterprise "Robotics" students, together with specialists, learn to assemble, connect, configure, and test drones. These drones are then provided by the University to assist the Armed Forces of Ukraine. Additionally, the University has a 3D printing laboratory where students can learn to use software for modelling 3D objects, print models on a 3D printer, and utilize 3D printers to produce individual parts for UAVs.

3.1.4.2 Student Advice and Support Services

European University provides various services to support students, including advisory and counselling services, career counselling, an international office, clubs and societies, such as the Startup Club and the Esports Club, as well as services for students with disabilities.

The Career Center offers students advice and guidance on current professions and employment, and on how to acquire practical skills that will help them successfully embark on their career path during or immediately after their studies. The Career Center offers seminars and workshops on employment preparation, from creating a resume to navigating interviews in English. Additionally, students have the opportunity to develop digital skills and to work on their personal brand. The Career Center's partner, DAN.IT Education, trains students and career changers in high-demand IT professions. It also specializes in career support, assisting in crafting competitive resumes, matching relevant job vacancies, preparing for interviews, and guiding graduates through the offer negotiation process. Students of the University also have access to online courses, upon completion of which they receive a corresponding certificate. The list of courses includes, for instance, "Crypto Business: From Idea to Implementation", "Innovative Methods and Practices in Education: Intelligent Systems and Digital Technologies", "Digital Transformation of Higher Education", "How to Become a Doctor of Philosophy: A Step-by-Step Guide", "The Right to Creativity: Procedure for Registration and Protection of Intellectual Property", "How to Start Your Own Business: From Idea to Registration of an Individual Entrepreneur", "Preparing for Exams in English and Ukrainian (Levels B2-C2)", "Tools for Grant Funding of Scientific and Educational Projects" and "Preparing a Scientific Publication for Print: Methodological Training".

Administrative staff supports and manages teaching and learning processes. There is an Academic Department that ensures the effective organization of the educational process and creates class schedules for students.

To organize meaningful student leisure activities, the Cultural and Artistic Center and the Department of Advertising and Tourism have been established and are operational at the time of the accreditation. Personal and social issues are handled by the Call Center, the Psychological Support Service, and the Law School, while career development matters are managed by the Career Center.

3.1.4.3 Equal Opportunities

According to the University, the organization of the educational process for students with special educational needs includes:

- Creating an inclusive educational environment: The University is committed to fostering an environment that supports the inclusion of all students, regardless of their physical or learning needs.
- Applying universal design principles in the educational process: Educational practices and resources are designed to be accessible to all students, ensuring that the learning environment accommodates diverse needs.
- Aligning the University's territory, buildings, structures, and premises with state building codes, standards, and regulations: In cases where existing buildings and facilities cannot be fully adapted to meet the needs of persons with disabilities, reasonable accommodations are made in accordance with universal design principles.
- Providing necessary educational and methodological materials and information and communication technologies: These resources are essential for organizing the educational process in a way that meets the needs of students with special educational requirements.
- Ensuring reasonable accommodations as needed: The University takes steps to adapt the learning environment and resources to the specific needs of students.
- Utilizing the most appropriate communication methods and techniques for students with special educational needs: This includes the use of Ukrainian Sign Language, Braille, and other communication methods as necessary, with the involvement of qualified specialists and educators.
- Ensuring information accessibility in various formats: Information is made available in multiple formats, such as Braille, large print, electronic format, and others, to meet the diverse needs of students.

Furthermore, according to the University, support for students with special educational needs at the University includes the following:

- Educational-organizational support: This involves assisting participants in the educational process with organizing the educational activities, writing and monitoring the implementation of an individual educational plan for the student with special educational needs, organizing individual consultations, and more.

- Psychological-pedagogical (psychological-andragogical) support: This encompasses systematic activities, including providing psychological and pedagogical assistance to students with special educational needs during the educational process.
- Social support: This includes measures to create conditions for social and everyday support for students with special educational needs, including providing information and assistance in arranging dormitory accommodation, obtaining technical rehabilitation aids, and organizing volunteer assistance to support these students.

The regulation of conflict situations between participants in the educational process is carried out in accordance with the Regulations on the Settlement of Conflict Situations at the Private Higher Education Establishment "European University" (see supplement 18). According to the code, the University adheres to a policy of respect and recognition of the dignity of every individual, condemns harassment, humiliation, discrimination, and the promotion of hatred, and will not tolerate, ignore, or leave unaddressed any acts of discrimination or harassment.

The University recognizes the right of students to protection during the educational process from any forms of violence and exploitation, bullying, discrimination based on any grounds, and harmful propaganda or advocacy that could negatively impact the health of the student. All employees and students of the University are expected to respect the dignity and rights of their colleagues and the academic community to which they belong.
In the event of a conflict situation, any member of the university community can submit a complaint to the Rector of the University. Upon receiving a complaint from a member of the university community regarding a violation of the Code of Ethics, the Rector forms a commission to review the complaint. The commission investigates the facts presented in the complaint, and if the allegations are confirmed, the violator will face consequences as stipulated by the laws of Ukraine and the University's internal regulations.

Depending on the situation, the commission's recommendations are provided to the Rector or the Chair of the Academic Council of the University. Depending on the nature of the violation, the Head of the Commission may be appointed from among the University's Vice-Rectors. The commission also includes representatives of students.

3.1.4.4 Experts' Appraisal

The experts commend European University on its comprehensive student support services and efforts to create equal opportunities for students at all levels, including students with special educational needs. Academic support is also provided for the students of the programme at a fully satisfactory level. The digital infrastructure seems sufficient for ensuring student learning success and progress. Powerful learning platforms and the possibilities they create enhance the experience of distance learning.

3.1.5 **Student Learning and Assessment**

According to the University, the general didactic approach of the programme at the bachelor, master,

and PhD levels is designed to progressively develop students' knowledge, skills, and competencies, aligning with their educational and professional goals. Each level employs a distinct approach tailored to the students' stage of learning and the complexity of the content.

The didactic approach in the bachelor's programmes for Software Engineering, Computer Science, and Cybersecurity focuses on providing a foundation in core principles while promoting structured learning and a gradual progression from basic to more complex concepts. The curriculum is designed to establish a solid base of knowledge. As students progress, they encounter more specialized and complex topics. Core courses are mandatory to ensure that all students acquire essential competencies, while electives offer opportunities for personalization and exploration of specific interests. Assignments and projects are designed with clear instructions and objectives to allow students to build confidence as they master foundational skills. Regular assessments provide feedback, helping students identify areas for improvement and ensuring they stay on track.

The didactic approach in the master's programmes for Computer Science and for Cybersecurity shifts towards specialization and research-oriented learning, with an emphasis on independent thinking and the application of advanced knowledge. The curriculum is designed to allow students to specialize in specific areas within the discipline. Courses are more focused and advanced, delving deeply into particular topics, theories, and methodologies. Elective courses enable students to tailor their education to their career goals and areas of interest.

A core component of master's level education is research and inquiry-based learning. Students are encouraged to engage with current research, critically analyse existing literature, and contribute to the body of knowledge through their projects and theses. Problem-based learning and case studies are common, in which students apply theoretical knowledge to real-world problems and develop solutions through research and collaboration. Students are expected to take greater responsibility for their own learning, with an emphasis on independent study and self-directed research. However, collaborative projects and group work remain important, reflecting the collaborative nature of professional practice.

On both bachelor's and master's levels, practical application of knowledge is emphasized through internships. According to the University, internships ensure that students not only gain theoretical knowledge but also develop the practical skills needed in their professional careers.

According to the University, the main methods of assessment at the bachelor, master, and PhD levels are designed to align with the specific teaching methods and learning objectives at each stage of the educational process and to ensure that the intended learning outcomes (ILOs) for each educational component are effectively achieved. These assessments are tailored to evaluate both the knowledge and competencies that students are expected to acquire at each level of their education.

For the bachelor's programmes in Software Engineering, Computer Science, and Cybersecurity, assessments are designed to evaluate students' understanding of foundational knowledge, their ability to apply basic skills, and their progression towards more advanced topics. The assessments focus on both formative (ongoing) and summative (final) evaluation methods. Within the cluster of computer sciences programmes, the assessment methods are directly aligned with the learning outcomes of each course. Assessment methods include entrance assessment (testing), intermediate/module assessment (oral questioning, written express assessment/computer testing, etc.), final semester assessment (pass/fail exams, oral and written (testing), combined forms, defence of course projects,

defence of practice reports), and attestation (defence of the thesis).

Exams are used to assess students' grasp of the theoretical knowledge presented in lectures and tutorials. They typically include a mix of multiple-choice questions and oral exams. Some exams may include problem-solving or case-based questions that require students to apply their knowledge to new situations, thereby assessing critical thinking and analytical skills. Exams are aligned with intended learning outcomes that emphasize understanding of key concepts, theories, and principles. They assess the student's ability to recall, explain, and apply this knowledge in various contexts.

Quizzes and tests, often conducted during seminars or lab sessions, provide a quick check of students' understanding of recently covered material. These are often low-stakes assessments designed to give students and instructors immediate feedback. Practical Assignments are designed to measure the application of theoretical knowledge in practical scenarios, aligning with intended learning outcomes that focus on technical skills and hands-on competencies.

Presentations and group work are aligned with intended learning outcomes that focus on communication, collaboration, and the ability to articulate and defend ideas. Group work assesses the student's ability to collaborate, share responsibilities, and contribute to collective outcomes, reflecting teamwork competencies. Writing assignments are often tied to lectures and reading materials, requiring students to explore topics in greater depth. This method helps develop critical thinking and academic writing skills. Group projects integrate learning from multiple courses and are typically conducted towards the end of the programme. These projects often require students to work in teams, apply knowledge to real-world problems, and produce a final report or presentation.

For the master's programmes in Computer Science, and Cybersecurity, assessments are mostly the same but more specialized and research-oriented, focusing on students' ability to engage in independent research, apply advanced knowledge, and solve complex problems. Apart from the methods described above, the assessments are often linked to problem-based learning methods. Students must apply theoretical knowledge to real-world scenarios, demonstrating their problem-solving skills and ability to work in teams. Such assessment methods linked with intended learning outcomes that focus on applying knowledge within specific professional or industry contexts (ILO.10, Computer Science; ILO.13 Cybersecurity; see programme descriptions in supplementary material folder 1).

The master's thesis is directly linked to research seminars and independent study. It requires students to conduct original research, often under faculty supervision. Research papers and theses are closely aligned with intended learning outcomes that emphasize advanced knowledge, research skills, and the ability to contribute to academic discourse.

According to the University, the assessment criteria are accessible to all participants in the educational process and are published on the University's website. Additionally, these criteria are explained to students during the first class of each course. Detailed evaluation criteria are included in the course syllabi, where a grading table for various student activities is provided. The table specifies how many points a student can earn for different types of in-class and out-of-class activities, such as testing on lecture materials, project evaluations, assessments of independent work, oral questioning, and other forms of educational activity. The exam programmes are posted in the Google Classroom. All students are provided with corporate accounts and are connected to the University's corporate Google

Workspace.

The ECTS grading scale is applied across all six programmes. The grading system is described in details in the self-assessment report. Final assessment can take the form of a pass/fail evaluation or an exam. In cases where a pass/fail evaluation is planned for a course, the final grade is based on the total points earned for all types of in-class and out-of-class activities. The maximum grade for a pass/fail evaluation, according to the ECTS scale, is 100 points. When an exam is scheduled for a course, the maximum points a student can earn for all in-class and out-of-class activities is 60 points. An additional 40 points can be earned during the exam. The final grade is calculated by summing the points from the ongoing assessment and the exam. Students who receive a grade of "F" during semester assessments or who fail to pass the assessment within the set deadlines after receiving an "FX" grade may retake the examination. Retakes are allowed only before the start of the next semester. If a student receives an unsatisfactory final semester grade upon retaking the assessment, they have the right to request a re-examination before a commission. This commission is formed by the Dean of the Faculty based on proposals from the relevant departments. The composition and timeline for clearing academic debts are approved by the Dean. The commission is chaired by the head of the department and includes faculty members and deans, if they agree to participate. The grade assigned by the commission is final and cannot be appealed. A student who fails to meet the requirements of their individual study plan will be expelled from the University.

3.1.5.1 Experts' Appraisal

The expert reviewer panel agrees, and the online talks with students of the study programmes under consideration have given no indication to the contrary, that the implementation of student-centred learning and teaching as well as the University's approach to student assessment complies with the requirements of the European Standards and Guidelines. In particular, the implementation of student-centred learning and teaching considers and uses different modes of delivery and a variety of pedagogical approaches, such as group work and presentations. The reviewer group also confirms that assessment is consistent, fairly applied to all students and carried out in accordance with official procedures. A formal procedure for student appeals is in place. Students know the criteria for and method of assessment as well as criteria for marking in advance. The means of assessment allows students to demonstrate the extent to which the intended learning outcomes have been achieved. Procedures for dealing with student complaints are in place.

3.1.6 **Quality Assurance**

To ensure the quality of educational services, the University has developed an internal quality assurance system. The quality assurance policies are outlined in the "Regulations on the Quality Assurance System of Educational Activities and Higher Education at the Private Higher Education Establishment 'European University'" (see supplement 8) and the "Regulations on the Organization of the Educational Process" (see supplements 6 and 7).

The internal quality assurance system at European University is based on the Standards and Guidelines

for Quality Assurance in the European Higher Education Area (ESG) and national legislation in the field of higher education. The key principles embedded in the internal quality assurance system include: compliance with European and national quality standards; university autonomy, with responsibility for ensuring the quality of education; a systematic approach, which involves managing quality at all stages of the educational process; a process-oriented approach to management; quality monitoring; continuous quality improvement; involvement of students, employers, and other stakeholders in the quality assurance process; and transparency of information at all stages of quality assurance.

According to the University, its internal quality assurance system includes the following procedures and measures:

- Monitoring and periodic review of study programmes based on employer feedback, student satisfaction levels, graduate employment rates, and employer ratings.
- Continuous monitoring of students' initial and final knowledge levels, achievements in student research competitions, tournaments, Olympiads, and involvement in research work.
- Annual assessment of students' learning performance.
- Ensuring the quality of the faculty, including providing professional development for teaching, research, and academic staff.
- Ensuring the availability of necessary information resources for organizing the educational process and supporting students in each study programme.
- Providing an information system for the effective management of educational activities.
- Ensuring transparency of information about the University's activities.
- Preventing and detecting academic plagiarism in the scientific and educational works of staff and students.
- Ensuring adherence to academic integrity by higher education institution staff and students.
- Monitoring the internal quality assurance of educational activities and higher education quality.

The University monitors student satisfaction through annual surveys using specially developed questionnaires for bachelor's, master's, and PhD students. These questionnaires address various aspects, including overall satisfaction with studies, student involvement in developing or updating study programmes, satisfaction with teaching and assessment methods, academic integrity, and more. Additionally, the survey includes specific questions designed to better understand students' experiences regarding their professional development and psychological well-being. Samples of questionnaires are provided in supplement 21.

To ensure that the study programmes align with current trends in the field and labour market, the University also involves industry and other external experts in the development of courses and learning materials. For example, based on recommendations from stakeholders at the NGO "Platform of Innovative Partnership", with which the university has been collaborating since 2019, a course titled "Startup Project Development and Teamwork" has been added to the curricula of the Bachelor's programmes in Software Development, Computer Sciences, and Cybersecurity. Employers' feedback, particularly regarding the employability of graduates, is additionally gathered through meetings with representatives from IT companies and IT recruitment agencies. As a result of these discussions, the course "DevOps Methodology" has been added to the Master's programme in Computer Sciences.

Furthermore, during the recent revision of the Software Engineering study programme, suggestions from representatives of the IT company Genesis have been considered. They recommended adding a course on business analytics in IT to the curriculum. As a result, a 4-ECTS-credit course has been introduced.

According to the University, significant attention is also given to tracking the career paths of its graduates. Regular surveys among graduates help identify potential gaps and issues in the educational process. These findings are then discussed within relevant departments to explore possible solutions and improvements. Graduates who have become industry professionals remain involved in the educational process, serving as mentors and experts in various sessions, training programmes, and master classes. Meetings with well-known and successful graduates are organized for current students, and graduates are engaged as stakeholders in the development and discussion of study programmes.

Moreover, the University has established a Center for Pedagogical Excellence and Quality Monitoring. The Center's primary purpose is to coordinate efforts across various departments to ensure the quality of education at the University. It conducts continuous monitoring of educational activities and standards, and it develops recommendations for improving the training of competitive specialists who meet current labour market demands. The Center's activities are designed to support teaching and academic staff in adapting to their roles, gaining teaching experience, and developing professional competencies.

A last element in the University's quality assurance mechanisms is the EUni app, which can be used by both students and instructors to address issues related to communication and class scheduling. It provides instant access to class schedules, chats, reminders, feedback on pressing issues, tuition payments, and more.

3.1.6.1 Experts' Appraisal

The experts have reached the conclusion that a purposeful quality assurance system has been set up by the University, which centrally involves external partners and stakeholders. As far as the experts can judge, adequate measures are taken to monitor the quality of the programmes. Furthermore, the expert group has perceived a high level of satisfaction among the students with the way the programmes have been run so far.

3.1.7 **Transparency and Public Information**

According to the report of the University, it regularly publishes information about its educational programmes – including admission rules, procedures for the recognition of learning outcomes, assessment criteria, equal opportunity policies, etc. on its official website at https://e-u.edu.ua/ua/. In addition, this website contains information about academic, scientific, and extracurricular activities, faculties, and contact details.

3.1.7.1 Experts' Appraisal

Due to the lack of a full English-language version of the University's website, the expert reviewer group could not adequately assess this criterion. In this context, the experts also asked the University about its objective to attract more international students. It was confirmed that an update of the website seems necessary.

3.2 Programme 1: Software Engineering (Bachelor)

3.2.1 Intended Learning Outcomes

In addition to the general aspects laid out in chapter 3.1.1, programme 1 includes 25 programme-specific learning outcomes, which are listed in the programme's description (see supplementary material folder 1).

3.2.1.1 Experts' Appraisal

The experts regard the programme-specific intended learning outcomes are fully appropriate for the programme's level of qualification. The intended learning outcomes are in line with the institutional strategy of European University and are made explicit in the programme description.

3.2.2 Structure and Content of the Study Programme

Table 1 shows the specific structure of programme 1. Elective courses make up no less than 25 percent of the study programme's content.

Table 1. Structure of programme 1

Educational Units and Courses	Semester	Form of Examination /Assessment	Workload (hours)		ECTS-credits
			Contact Time	Self-Study Time	
Part 1 Compulsory Courses					
History of Ukrainian statehood and culture	1	pass/fail	32	58	3
Business Ukrainian language	1	exam	32	58	3
Professional English	1-8	exam, pass/fail	200	400	20
Life safety and basic physical health	1, 2	pass/fail	36	84	4
Fundamentals of academic integrity	2	pass/fail	30	60	3
Introduction to the specialty	1	pass/fail	32	58	3
Jurisprudence	2	pass/fail	40	80	4
Technology for creating startup projects and teamwork	1	pass/fail	48	102	5
Philosophy and critical thinking	3	exam	40	80	4
Higher mathematics	1, 2	pass/fail, exam	72	138	7
Algorithmization and programming basics	1	exam	40	80	4
Software testing, quality and support	7	exam	40	80	4
Object-Oriented Programming	3-5	exam, pass/fail, research project	88	212	10
Software tools and frameworks	2	exam	40	80	4
IT project lifecycle management	5	pass/fail	40	80	4

Theory and methods of Information Search	1	exam	32	58	3
Web programming	3	exam	48	102	5
Security of Information Systems	4	exam	50	100	5
Operating Systems and System Administration	2	exam	50	100	5
Theory of algorithms and data structures	2	exam	40	80	4
Databases and knowledge bases	5-7	exam, pass/fail, research project	80	220	10
System programming	7	exam	48	102	5
Operations research and mathematical models	4	exam	40	80	4
Business Analytics in IT	5	exam	40	80	4
Human-machine interfaces	3	exam	40	80	4
Cross-platform programming	6	exam	80	160	8
Data mining and Cloud computing	7	exam	40	80	4
Software design and construction	7, 8	pass/fail, exam	88	182	9
System analysis and numerical methods	6	pass/fail	50	100	5
Computer networks	4	exam	50	100	5
Part 2 Elective Courses					
Elective course	3	pass/fail	48	102	5
Elective course	3	pass/fail	48	102	5
Elective course	4	pass/fail	50	100	5
Elective course	4	pass/fail	50	100	5
Elective course	5	pass/fail	48	102	5
Elective course	5	pass/fail	48	102	5
Elective course	5	pass/fail	48	102	5
Elective course	6	pass/fail	50	100	5
Elective course	6	pass/fail	50	100	5
Elective course	7	pass/fail	48	102	5
Elective course	7	pass/fail	48	102	5
Elective course	8	pass/fail	48	102	5
Professional internship	8	pass/fail	4	446	15
Thesis	8	defense	2	88	3
Total			2176	5024	240

3.2.2.1 Experts' Appraisal

The experts consider the structure and content of programme 1, primarily the compulsory courses, to be in line with European standards on similar programmes. The share of electives, which need not be related to the study programme, seems high yet grants flexibility to students in designing individual study profiles.

3.2.3 Teaching Faculty

See chapter 3.1.3

3.2.3.1 Experts' Appraisal

See chapter 3.1.3.1

3.2.4 Infrastructure, Resources and Student Support

See chapter 3.1.4

3.2.4.1 Experts' Appraisal

See chapter 3.1.4.4

3.2.5 Student Learning and Assessment

See chapter 3.1.5

3.2.5.1 Experts' Appraisal

See chapter 3.1.5.1

3.2.6 Quality Assurance

See chapter 3.1.6

3.2.6.1 Experts' Appraisal

See chapter 3.1.6.1

3.2.7 Transparency and Public Information

See chapter 3.1.7

3.2.7.1 Experts' Appraisal

See chapter 3.1.7

3.3 Programme 2: Computer Sciences (Bachelor)

3.3.1 Intended Learning Outcomes

In addition to the general aspects laid out in chapter 3.1.1, programme 2 includes 16 programme-specific learning outcomes, which are listed in the programme's description (see supplementary material folder 1).

3.3.1.1 Experts' Appraisal

The experts regard the programme-specific intended learning outcomes are fully appropriate for the programme's level of qualification. The intended learning outcomes are in line with the institutional strategy of European University and are made explicit in the programme description.

3.3.2 Structure and Content of the Study Programme

Table 2 shows the specific structure of programme 2. Elective courses make up no less than 25 percent of the study programme's content.

Table 2. Structure of programme 2

Educational Units and Courses	Semester	Form of Examination /Assessment	Workload (hours)		ECTS-credits
			Contact Time	Self-Study Time	
Part 1 Compulsory Courses					
History of Ukrainian Statehood and Culture	1	pass/fail	32	58	3
Business Ukrainian Language	1	exam	32	58	3
Professional Foreign Language	1-8	exam, pass/fail	200	400	20
Life Safety and Basics of Physical Health	1, 2	pass/fail	36	84	4
Fundamentals of Academic Integrity	2	pass/fail	30	60	3
Introduction to the Specialty	1	pass/fail	32	58	3
Jurisprudence	2	pass/fail	40	80	4
Technology for creating startup projects and teamwork	1	pass/fail	48	102	5
Philosophy and Critical Thinking	3	exam	40	80	4
Higher Mathematics	1, 2	pass/fail, exam	72	138	7
Algorithmization and Programming Basics	1, 2	pass/fail, exam	80	160	8
Information Systems Design	5-7	exam, pass/fail, research project	80	190	9
Object-Oriented Programming	3-5	exam, pass/fail, research project	88	212	10
Databases and Knowledge Bases	5, 6	pass/fail, exam	80	160	8

Data mining and Cloud Computing	7	pass/fail	48	72	4
Web Programming	3	exam	40	110	5
Operating Systems and System Administration	2	exam	50	100	5
Cross-Platform Programming	6	exam	60	120	6
System Analysis and Numerical Methods	6	pass/fail	40	80	4
Cloud Services and Infrastructure	2	pass/fail	40	80	4
Probability Theory	3	exam	40	80	4
Parallel and Distributed Computing	8	exam	48	102	5
IT Project Life Cycle Management	5	exam	40	80	4
Software Testing, Quality, and Maintenance	7	exam	40	80	4
Operations Research and Mathematical Models	4	exam	40	80	4
Systems Programming	7	exam	48	102	5
Artificial Intelligence and Machine Learning Technologies	7	exam	40	80	4
Information Systems Security	4	exam	50	100	5
Information Retrieval Theory and Methods	1	pass/fail	32	58	3
Computer Networks	4	exam	50	100	5
Part 2 Elective Courses					
Elective course	3	pass/fail	48	102	5
Elective course	3	pass/fail	48	102	5
Elective course	4	pass/fail	50	100	5
Elective course	4	pass/fail	50	100	5
Elective course	5	pass/fail	48	102	5
Elective course	5	pass/fail	48	102	5
Elective course	5	pass/fail	48	102	5
Elective course	6	pass/fail	50	100	5
Elective course	6	pass/fail	50	100	5
Elective course	7	pass/fail	48	102	5
Elective course	7	pass/fail	48	102	5
Elective course	8	pass/fail	48	102	5
Industrial internship	8	pass/fail	4	446	15
Thesis	8	defense	2	88	3
Total			2186	5014	240

3.3.2.1 Experts' Appraisal

The experts consider the structure and content of programme 2, primarily the compulsory courses, to be in line with European standards on similar programmes. The share of electives, which need not be related to the study programme, seems high yet grants flexibility to students in designing individual study profiles.

3.3.3 Teaching Faculty

See chapter 3.1.3

3.3.3.1 Experts' Appraisal

See chapter 3.1.3.1

3.3.4 Infrastructure, Resources and Student Support

See chapter 3.1.4

3.3.4.1 Experts' Appraisal

See chapter 3.1.4.4

3.3.5 Student Learning and Assessment

See chapter 3.1.5

3.3.5.1 Experts' Appraisal

See chapter 3.1.5.1

3.3.6 Quality Assurance

See chapter 3.1.6

3.3.6.1 Experts' Appraisal

See chapter 3.1.6.1

3.3.7 Transparency and Public Information

See chapter 3.1.7

3.3.7.1 Experts' Appraisal

See chapter 3.1.7.1

3.4 Programme 3: Computer Sciences (Master)

3.4.1 Intended Learning Outcomes

In addition to the general aspects laid out in chapter 3.1.1, programme 3 includes 20 programme-specific learning outcomes, which are listed in the programme's description (see supplementary material folder 1).

3.4.1.1 Experts' Appraisal

The experts regard the programme-specific intended learning outcomes are fully appropriate for the programme's level of qualification. The intended learning outcomes are in line with the institutional strategy of European University and are made explicit in the programme description.

3.4.2 Structure and Content of the Study Programme

Table 3 shows the specific structure of programme 3. Elective courses make up no less than 25 percent of the study programme's content.

Table 3. Structure of programme 3

Educational Units and Courses	Semester	Form of Examination /Assessment	Workload (hours)		ECTS-credits
			Contact Time	Self-Study Time	
Part 1 Compulsory Courses					
Philosophy and Methodology of Scientific Knowledge	1	pass/fail	32	58	3
Academic Integrity and Basics of Academic Writing	2	pass/fail	30	60	3
Software Development, Maintenance, and Testing (DevOps)	2	pass/fail	30	60	3
Business English	1	pass/fail	30	60	3
Modeling of Information and Computer Systems	1	exam	40	80	4
Innovation and Project Management in IT	1	pass/fail	32	58	3
Mathematical Methods of Operations Research	1	pass/fail	48	102	5
Analysis of Software Requirements and Quality	2	exam	32	58	3
Models and Methods for Big Data Analysis	3	exam	50	100	5
Design of Information Systems and Databases	1	exam	48	102	5
Programming Languages for Analytical	1	exam	72	138	7

Research					
Part 2 Elective Courses					
Elective course	2	pass/fail	50	100	5
Elective course	2	pass/fail	50	100	5
Elective course	2	pass/fail	50	100	5
Elective course	3	pass/fail	48	102	5
Elective course	3	pass/fail	48	102	5
Research Internship	2	pass/fail	4	176	12
Professional Internship	3	pass/fail	4	356	6
Thesis	3	defense	2	88	3
Total			700	2000	90

3.4.2.1 Experts' Appraisal

The experts consider the structure and content of programme 3, primarily the compulsory courses, to be in line with European standards on similar programmes. The share of electives, which need not be related to the study programme, seems high yet grants flexibility to students in designing individual study profiles.

3.4.3 **Teaching Faculty**

See chapter 3.1.3

3.4.3.1 Experts' Appraisal

See chapter 3.1.3.1

3.4.4 **Infrastructure, Resources and Student Support**

See chapter 3.1.4

3.4.4.1 Experts' Appraisal

See chapter 3.1.4.4

3.4.5 **Student Learning and Assessment**

See chapter 3.1.5

3.4.5.1 Experts' Appraisal

See chapter 3.1.5.1

3.4.6 Quality Assurance

See chapter 3.1.6

3.4.6.1 Experts' Appraisal

See chapter 3.1.6.1

3.4.7 Transparency and Public Information

See chapter 3.1.7

3.4.7.1 Experts' Appraisal

See chapter 3.1.7.1

3.5 Programme 4: Computer Sciences (PhD)

3.5.1 Intended Learning Outcomes

In addition to the general aspects laid out in chapter 3.1.1, programme 4 includes 12 programme-specific learning outcomes, which are listed in the programme's description (see supplementary material folder 1).

3.5.1.1 Experts' Appraisal

The experts regard the programme-specific intended learning outcomes are fully appropriate for the programme's level of qualification. The intended learning outcomes are in line with the institutional strategy of European University and are made explicit in the programme description.

3.5.2 Structure and Content of the Study Programme

In Ukraine, there are specific regulations for PhD programs. A regular PhD programme consists of 30 to 60 ECTS credits over a span of four years. It is divided into educational and scientific/research components. ECTS credits are awarded for the educational component, which follows a curriculum, while the research component is guided by an individual research plan. To successfully complete the PhD programme, students must fulfil all the requirements of the educational component and complete

the PhD thesis, which is the primary goal of the research component. Typically, PhD students earn their credits within 2 to 2.5 years. Table 4 shows the specific structure of programme 4. Elective courses make up no less than 25 percent of the study programme's content.

Table 4. Structure of programme 4

Educational Units and Courses	Semester	Form of Examination /Assessment	Workload (hours)		ECTS-credits
			Contact Time	Self-Study Time	
Part 1 Compulsory Courses					
Philosophy of Science and Methodology of Scientific Research	1, 2	pass/fail, exam	54	96	5
Academic Integrity	1	exam	30	60	3
Management of Higher Education Institutions and Technologies for the Provision of Educational Services	2, 3	exam, pass/fail	54	96	4
Algorithmization of Scientific Research, Software Experiment and Distributed Computing	1	pass/fail	30	60	3
Academic English	1, 2	pass/fail	42	78	4
Modeling of Complex Processes and Systems	2	pass/fail	30	60	3
Methods and Modern Tools for Searching and Analyzing Big Data	3	exam	42	78	4
Part 2 Elective Courses					
Elective course	3	pass/fail	54	96	5
Elective course	4	pass/fail	54	96	5
Teaching Internship	4	pass/fail	4	41	1,5
Research Internship	4	pass/fail	4	41	2,5
Thesis		defense			
Total			398	802	40

3.5.2.1 Experts' Appraisal

The experts consider the structure and content of programme 4, primarily the compulsory courses, to be in line with European standards on similar programmes.

3.5.3 Teaching Faculty

See chapter 3.1.3

3.5.3.1 Experts' Appraisal

See chapter 3.1.3.1

3.5.4 Infrastructure, Resources and Student Support

See chapter 3.1.4

3.5.4.1 Experts' Appraisal

See chapter 3.1.4.4

3.5.5 Student Learning and Assessment

The didactic approach in the PhD programme in Computer Sciences is based on independent, original research, with students expected to contribute new knowledge to their field. Although the educational component of the PhD programme is guided by a curriculum, PhD students are expected to take full responsibility for their research activities. The didactic approach is highly individualized, with students working closely with their supervisors to define research questions, design studies, and conduct research. The approach emphasizes the development of advanced research skills, critical thinking, and the ability to work independently. Students are encouraged to challenge existing knowledge, develop new hypotheses, and produce work that meets the highest academic standards. While PhD students work independently, mentorship from experienced faculty is a crucial component of the programme. Students are expected to publish their research, present at conferences, and contribute to academic discourse.

For the PhD programme in Computer Sciences, assessment is primarily focused on the student's ability to conduct original research and contribute new knowledge to their field. The assessment methods are designed to evaluate the depth and quality of the student's research. The dissertation and defence are directly aligned with the intended learning outcomes that focus on original research, the generation of new knowledge, and the ability to engage with the academic community at a high level (ILO.03, ILO.04, ILO.05; see programme's list of intended learning outcomes, supplementary material folder 1).

PhD students regularly present their research at seminars and conferences. These presentations are linked to the ongoing development of research and communication skills. Presenting at seminars and conferences tests the student's understanding of their research topic and its relevance to the field. These assessments are related to the intended learning outcomes that focus on scholarly communication and the ability to engage with the broader research community (ILO.02; see programme's list of intended learning outcomes, supplementary material folder 1). PhD students are

expected to publish their research in peer-reviewed journals during their programme. This assessment is related to the development of research and writing skills and participation in the academic community.

3.5.5.1 Experts' Appraisal

The experts regard the University's approach to student learning and assessment for programme 4 as being fully in line with the third cycle of the Framework for Qualifications of the European Higher Education Area.

3.5.6 Quality Assurance

See chapter 3.1.6

3.5.6.1 Experts' Appraisal

See chapter 3.1.6.1

3.5.7 Transparency and Public Information

See chapter 3.1.7

3.5.7.1 Experts' Appraisal

See chapter 3.1.7.1

3.6 Programme 5: Cybersecurity (Bachelor)

3.6.1 Intended Learning Outcomes

In addition to the general aspects laid out in chapter 3.1.1, programme 5 includes 55 programme-specific learning outcomes, which are listed in the programme's description (see supplementary material folder 1).

3.6.1.1 Experts' Appraisal

The experts regard the programme-specific intended learning outcomes are fully appropriate for the programme's level of qualification. The intended learning outcomes are in line with the institutional strategy of European University and are made explicit in the programme description.

3.6.2 Structure and Content of the Study Programme

Table 5 shows the specific structure of programme 5. Elective courses make up no less than 25 percent of the study programme's content.

Table 5. Structure of programme 5

Educational Units and Courses	Semester	Form of Examination /Assessment	Workload (hours)		ECTS-credits
			Contact Time	Self-Study Time	
Part 1 Compulsory Courses					
History of Ukrainian Statehood and Culture	1	pass/fail	32	58	3
Business Ukrainian	1	exam	32	58	3
Professional English	1-8	exam, pass/fail	200	400	20
Higher Mathematics	1	pass/fail	40	80	4
Fundamentals of Academic Integrity	2	pass/fail	30	60	3
Introduction to the Specialty	1	pass/fail	32	58	3
Jurisprudence	2	pass/fail	40	80	4
Technologies for Creating Startup Projects and Teamwork	1	pass/fail	48	102	5
Philosophy and Critical Thinking	3	exam	40	80	4
Methods and Means of Information and Data Protection	2	exam	50	100	5
Legislative and Regulatory Framework of Information and Cybersecurity	2	pass/fail	50	100	5
Theory and Search of Information	1	pass/fail	40	80	4
Object and Oriented Programming	3-5	exam, pass/fail, research project	90	210	10
Database Administration and Protection	5, 6	pass/fail, exam	80	160	8
Analysis and Restoration of Information and Telecommunication Systems	5	exam	48	102	5
Computer Network Security	7, 8	pass/fail, exam	96	204	10
Operating Systems and System Administration	2	exam	50	100	5
Security of Information Systems	4, 5	pass/fail, exam	82	158	8
System Programming	7	pass/fail	64	116	6
Computer networks	4	pass/fail	40	80	4
Security of Programs and Data	3	exam	32	58	3
Operations Research and Decision Theory	6	pass/fail	50	100	5
Methods of Designing Cybersecurity Systems	4	pass/fail	40	80	4
Software Testing, Quality and Maintenance	7	exam	40	80	4

Fundamentals of Algorithmization and Programming	1, 2	pass/fail, exam	80	160	8
Information and Cybersecurity Management	3	exam	40	80	4
Cryptographic Protection Systems and Tools	7	exam	32	58	3
Integrated Information Security Systems	6	exam	50	100	5
Information Security Risk Management	6	pass/fail	40	80	4
Security of Restricted Facilities	3	exam	32	58	3
Part 2 Elective Courses					
Elective course	3	pass/fail	48	102	5
Elective course	3	pass/fail	48	102	5
Elective course	4	pass/fail	50	100	5
Elective course	4	pass/fail	50	100	5
Elective course	5	pass/fail	48	102	5
Elective course	5	pass/fail	48	102	5
Elective course	5	pass/fail	48	102	5
Elective course	6	pass/fail	50	100	5
Elective course	6	pass/fail	50	100	5
Elective course	7	pass/fail	48	102	5
Elective course	7	pass/fail	48	102	5
Elective course	8	pass/fail	48	102	5
Industrial Internship	8	pass/fail	4	446	15
Unified State Qualifying Examination	8	exam	2	88	3
Total			2210	4990	240

3.6.2.1 Experts' Appraisal

The experts consider the structure and content of programme 5, primarily the compulsory courses, to be in line with European standards on similar programmes. The share of electives, which need not be related to the study programme, seems high yet grants flexibility to students in designing individual study profiles.

3.6.3 **Teaching Faculty**

See chapter 3.1.3

3.6.3.1 Experts' Appraisal

See chapter 3.1.3.1

3.6.4 Infrastructure, Resources and Student Support

See chapter 3.1.4

3.6.4.1 Experts' Appraisal

See chapter 3.1.4.4

3.6.5 Student Learning and Assessment

See chapter 3.1.5

3.6.5.1 Experts' Appraisal

See chapter 3.1.5.1

3.6.6 Quality Assurance

See chapter 3.1.6

3.6.6.1 Experts' Appraisal

See chapter 3.1.6.1

3.6.7 Transparency and Public Information

See chapter 3.1.7

3.6.7.1 Experts' Appraisal

See chapter 3.1.7.1

3.7 Programme 6: Cybersecurity (Master)

3.7.1 Intended Learning Outcomes

In addition to the general aspects laid out in chapter 3.1.1, programme 6 includes 23 programme-specific learning outcomes, which are listed in the programme's description (see supplementary material folder 1).

3.7.1.1 Experts' Appraisal

The experts regard the programme-specific intended learning outcomes are fully appropriate for the programme's level of qualification. The intended learning outcomes are in line with the institutional strategy of European University and are made explicit in the programme description.

3.7.2 Structure and Content of the Study Programme

Table 6 shows the specific structure of programme 6. Elective courses make up no less than 25 percent of the study programme's content.

Table 6. Structure of programme 6

Educational Units and Courses	Semester	Form of Examination /Assessment	Workload (hours)		ECTS-credits
			Contact Time	Self-Study Time	
Part 1 Compulsory Courses					
Philosophy and Methodology of Scientific Knowledge	1	pass/fail	32	58	3
Academic Integrity and Fundamentals of Academic Writing	2	pass/fail	30	60	3
Methods of Complex Cyber Protection	2	pass/fail	30	60	3
Business English	1	pass/fail	32	58	3
Strategic Information Security Management	1	exam	32	58	3
Designing of Cybersecurity Systems	1	exam	64	116	6
Cryptography Methods and Algorithms	1	pass/fail	40	80	4
Regulatory and Legal Framework in the Field of Information and Cybersecurity and Digital Forensics	3	exam	48	102	5
Security of Internet resources	1	exam	48	102	5

Mathematical Methods of Operations Research	2	exam	50	100	3
Security Audit of Information Systems, Penetration Testing	1	exam	64	116	6
Part 2 Elective Courses					
Elective course	2	pass/fail	50	100	5
Elective course	2	pass/fail	50	100	5
Elective course	3	pass/fail	48	102	5
Elective course	2	pass/fail	50	100	5
Elective course	3	pass/fail	48	102	5
Research Internship	2	pass/fail	4	176	12
Professional Internship	3	pass/fail	4	356	6
Thesis	3	defense	2	88	3
Total			726	1974	90

3.7.2.1 Experts' Appraisal

The experts consider the structure and content of programme 6, primarily the compulsory courses, to be in line with European standards on similar programmes. The share of electives, which need not be related to the study programme, seems high yet grants flexibility to students in designing individual study profiles.

3.7.3 **Teaching Faculty**

See chapter 3.1.3

3.7.3.1 Experts' Appraisal

See chapter 3.1.3.1

3.7.4 **Infrastructure, Resources and Student Support**

See chapter 3.1.4

3.7.4.1 Experts' Appraisal

See chapter 3.1.4.4

3.7.5 Student Learning and Assessment

See chapter 3.1.5

3.7.5.1 Experts' Appraisal

See chapter 3.1.5.1

3.7.6 Quality Assurance

See chapter 3.1.6

3.7.6.1 Experts' Appraisal

See chapter 3.1.6.1

3.7.7 Transparency and Public Information

See chapter 3.1.7

3.7.7.1 Experts' Appraisal

See chapter 3.1.7.1

Appendix

1. Statement of the University in Response to the Expert Report

ПРИВАТНИЙ ВИЩИЙ НАВЧАЛЬНИЙ ЗАКЛАД
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на № _____ від «____» _____ 20____ р.

Private Higher Educational Establishment "European University" would like to express its sincere gratitude to the members of the ZEvA expert panel for conducting the evaluation of our study programmes within the "Computer Science" cluster, and for the valuable recommendations aimed at improving the quality of the educational process. These recommendations will be taken into account in the further implementation and development of the study programmes.

With this letter, we confirm that we have no objections to the expert report.

With kind regards

Rector **Olena Tymoshenko**