ASIIN Seal & Euro-Inf-Label & EUR-ACE-Label

Accreditation Report

Bachelor's Degree Programmes
Electronics and Communication Engineering
Software Engineering
Management Information Systems

Provided by
European University of Lefke

Version: 22 September 2023

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A About the Accreditation Process

Name of the degree programme (in original language)	**(Official) English translation of the name**	**Labels applied for** [1]	**Previous accreditation (issuing agency, validity)**	**Involved Technical Committees (TC)**[2]
Ba Electronics and Communication Engineering	-	ASIIN, EUR-ACE® Label	10.09.2017 – 30.09.2022	02
Ba Software Engineering	-	ASIIN, Euro-Inf® Label,	29.09.2017 – 30.09.2022	04, 07
Ba Management Information Systems	-	ASIIN, Euro-Inf® Label,	01.04.2017 – 30.09.2022	07, 04
Date of the contract: 09.09.2021 **Submission of the final version of the self-assessment report:** 30.03.2022 **Date of the onsite visit:** 30.- 31.05.2022 **at: Lefke, North Cyprus**				
Peer panel: Prof. Dr. Dirk Dahlhaus, University of Kassel Prof. Dr. Thomas Barton, Worms University of Applied Sciences Prof. Dr. Ing. Sandro Leuchter, Mannheim University of Applied Sciences Günther Müller-Luschnat, Industry representative Paul-Emmanuel Ossom, Girne American University (Student)				
Representative of the ASIIN headquarter: David Witt				

[1] ASIIN Seal for degree programmes; EUR-ACE® Label: European Label for Engineering Programmes; Euro-Inf®: Label European Label for Informatics

[2] TC: Technical Committee for the following subject areas: TC 02 - Electrical Engineering/Information Technology; TC 04 - Informatics/Computer Science; TC 07 - Business Informatics/Information Systems

Responsible decision-making committee: Accreditation Commission for Degree Programmes	
Criteria used: European Standards and Guidelines as of May 15, 2015 ASIIN General Criteria, as of December 10, 2015 Subject-Specific Criteria of: Technical Committee 02 – Electrical Engineering/Information Technology as of December 9, 2011 Technical Committee 04 – Informatics/Computer Science as of March 29, 2018 Technical Committee 07 – Business Informatics/Information Systems as of December 8, 2017	

B Characteristics of the Degree Programmes

a) Name	Final degree (original/English translation)	b) Areas of Specialization	c) Corresponding level of the EQF[3]	d) Mode of Study	e) Double/Joint Degree	f) Duration	g) Credit points/unit	h) Intake rhythm & First time of offer
Electronics and Communication Engineering	B.Sc.	/	6	Full time	-	8 Semester	240 ECTS/ 141 Cypriot Credits	Fall semester / Fall 2007
Software Engineering	B.Sc.	/	6	Full time	-	8 Semester	240 ECTS/142 Cypriot Credits	Fall semester / Fall 2008
Management Information Systems	B.A.	/	6	Full time	-	8 Semester	240 ECTS/130 Cypriot Credits	Fall semester / Fall 2007

For the Bachelor's degree programme Electronics and Communication Engineering the institution has presented the following profile in the self-assessment report:

"The Electronics and Communication Engineering (ECE) Department was founded in 2007 under the Faculty of Engineering and admitted its first students in the Fall 2007-2008 academic year. The department is recognized by the Higher Education Council of Turkey (YÖK), with Ref Number: B.30.0. EÖB.000.00.03-01.01-2224. The department offers formal education in English. The ECE department has been accredited by ASIIN since 2017.

The program follows a curriculum with 141 credits (240 ECTS) that lasts for 8 semesters. The credits of the courses are expressed in terms of both the credit system and the European Credit Transfer System (ECTS). In the current credit system, for each course and in each semester, the evaluation criteria are determined by the lecturer, which is acknowledged by the department. The lecturer decides on the appropriate weighting applied to each assessment element of the course, e.g. exams, coursework, laboratory work, presentations, projects and course participation. The students completing the program are awarded a Bachelor of Science degree in Electronics and Communication Engineering. Our

[3] EQF = The European Qualifications Framework for lifelong learning

diploma explicitly states the length of the education (4 years) and the degree awarded. The ECE Department academic year includes two semesters, Fall and Spring, each lasting at least 14 weeks. The academic calendar to be used in conjunction with the program is determined every year by the University Senate. Some classes may be reoffered during the summer, namely Summer School. The purpose of the Summer School is to offer classes to those students who have taken the offered course before but failed, who have not taken the offered course before, and/or who are having to retake some courses to raise their CGPA. Summer School has a compressed 7-week duration, where the weekly class hours have been doubled. The ECE Department engineering program is a program supported by practical, laboratory, and internship studies and theoretical teaching. In this way, students are given the ability to use the theoretical knowledge they have acquired in solving real-life problems. The ECE Department uses the already set-up laboratories together with the sister departments (the Electrical and Electronics Engineering Department and the Computer Engineering Department). Our laboratories include Circuit Theory laboratory, Electronics laboratory, Power Electronics laboratory, Digital Circuits laboratory, Communications laboratory, Microprocessor laboratory, Antenna laboratory, and computer programming laboratories. Also, our recently established 3D-design laboratory is shared with the sister departments.

Vision:

The Department of Electronics and Communication Engineering strives to become one of the prestigious engineering departments in the area. The aim is to graduate engineers produce who are able to keep up with the latest developments, are aware of the problems of the era, are able to come up with creative solutions to these problems as a part of a team, or alone, and who are able to take part in national and international projects.

Mission:

The experienced faculty and strong infrastructure in the Electronic and Communication Engineering Department aim for high quality engineering education, so as to have graduates who are able to critically think, write and speak, have understanding and respect for social and ethical issues, who have a wide perspective and integrity; and who have ability produce solutions to various engineering and research topics."

For the Bachelor's degree programme Software Engineering the institution has presented the following profile in the self-assessment report:

"The Department of Software Engineering was founded in 2008 and continues its education as one of the five engineering programmes currently offered in the Engineering Faculty at

EUL. The programme accepted its first students in the fall semester of the 2008-2009 academic year, and the first group of graduates graduated in the spring semester of the 2012-2013 academic year. The medium of instruction is English. The university awards a 4-year Bachelor-of-Science (BSc) degree in Software Engineering upon completion of the programme's curriculum that corresponds to 142 EUL credits (240 ECTS). In the current credit system, for each course, the evaluation criteria for the semester (midterm exams, homework, laboratory, presentation, project and course participation, final exam, make-up exam, re-sit exam) and their weights are determined by the lecturer and acknowledged by the department.

The department is recognized by the Higher Education Council of Turkey (YÖK) Ref Number: B.30.0. EÖB.000.00.03-01.01-2224. The department offers formal education in English. The Software Engineering department has been accredited by ASIIN since 2017.

The diplomas explicitly state the length of the education (4 years) and the degree awarded. EUL Software Engineering Department's academic year includes two semesters, Fall and Spring, each lasting at least 14 weeks. The academic calendar to be used in conjunction with the program is determined every year by the University Senate's decision. Some classes may be reoffered in the so-called "Summer School". The purpose of the Summer School is to offer classes for students who has taken and failed, who hasn't taken, or who are having to retake some courses to raise CGPA. Summer School has a compressed 7-week duration, where the weekly class hours have been doubled. The Software Engineering Department program is a program supported by practical, laboratory and internship studies, as well as theoretical teaching. In this way, students are given the ability to use the theoretical knowledge they have acquired in solving real-life problems. The Software Engineering Department uses the already set-up laboratories together with the sister departments (Computer Engineering Department & Management Information Systems Department). The Software Engineering Department has developed its mission and vision statements in line with those established by the University and published them on the University's website.

Mission:

The mission of the Software Engineering Programme is to produce graduates that are creative and who have the mathematical, analytical, programming, communication, critical thinking, leadership and decision-making skills necessary in leading a successful career, whilst being aware of the social and ethical aspects of their work.

Vision:

The vision of the Software Engineering Programme is to become the prominent and preferred engineering programme in the Eastern Mediterranean region, producing highly competent graduate software engineers who are able to follow the latest developments in the field.

We see our graduates as qualified and in high demand as professional software engineers with a solid scientific background and ethical and moral values."

For the Bachelor's degree programme Management and Information Systems the institution has presented the following profile in the self-assessment report:

"The Management Information Systems (MIS) programme under the School of Applied Sciences, is a unique specialization with the combination of Business Fundamentals, Business Informatics, Informatics Fundamentals. Information and its technological applications can now be considered essential to any modern country's development from economic and technological perspectives. The programme integrates business and informatics elements leading to a four-year bachelor's degree.

The programme is for 4 years and 8 semesters with 130 credits (240 ECTS). The course credits are expressed in terms of both the credit system and the European Credit Transfer System (ECTS). In the current credit system, the evaluation criteria for the semester (midterm exams, homework, laboratory, presentation, project, and course participation) and the end of the semester (final exam, make-up exam, re-sit exam) and their weights are determined by the course lecturer.

Upon the completion of program, the students are awarded a Bachelor of Arts degree in Management Information Systems. The duration of the education (4 years) and awarded degrees are diplomas explicitly stated on the diploma. Each academic year of the MIS department contains 2 semesters (fall and spring) in 14 weeks. The University Senate prepares the annual academic calendar based on this 14-week period stretching to two semesters.

Additionally, some courses may be re-offered as a Summer School other than fall and spring semesters. The reason for the summer school is to offer the course(s) for students that failed; that didn't enrol before; that only have one or two courses left for graduation, or that retake some courses to raise their GPA. Summer School has a compressed 7-week duration, where the weekly class hours have been doubled.

Moreover, the MIS department program also provided two projects and summer training in addition to theoretical teaching. Students find the opportunity to use their theoretical knowledge through these practical courses.

The general aims of the programme are to:

- Provide students with the theoretical and interdisciplinary training necessary for academic and/or career advancements.
- Provide students necessary skills to be able to work as a part of a team or alone, and additional skills to take part in national and international projects
- Provide students skills to critically think, write and speak,
- Provide the students with developing an appreciation of and respect for the social, moral, and ethical values to the community."

C Peer Report for the ASIIN Seal[4]

1. The Degree Programme: Concept, content & implementation

Criterion 1.1 Objectives and learning outcomes of a degree programme (intended qualifications profile)

Evidence:

- Learning Outcomes for all study programmes published on the respective websites (accessed 20 August 2022)
  - https://www.eul.edu.tr/en/academic/faculties/faculty-of-engineering/electronics-and-communication-engineering/
  - https://www.eul.edu.tr/en/academic/faculties/faculty-of-engineering/software-engineering/
  - https://www.eul.edu.tr/en/academic/graduate-programs/school-of-applied-sciences/management-information-systems/
- SSC-based Objectives-Module-Matrices for all programmes in the Self-Assessment Report
- Discussions during the audit

Preliminary assessment and analysis of the peers:
For all study programmes under review the HEI presented Objective-Module-Matrices matching the respective learning outcomes of the modules with the Subject Specific Criteria of the Technical Committees involved. A more generic description of the educational objectives as well as the learning outcomes of the respective programmes is also presented on the programmes' websites.

The peers learned during the onsite visit that frequent consultation about the further development of the curricula is held, internally as well as externally, for example with industry representatives. Given the limited size of Northern Cyprus industry, the peers understand that most graduates are trained not so much for a local economy, but for the industry of

[4] This part of the report applies also for the assessment for the European subject-specific labels. After the conclusion of the procedure, the stated requirements and/or recommendations and the deadlines are equally valid for the ASIIN seal as well as for the sought subject-specific label.

their respective home countries, countries of the European Union or the UK. Consequently, the revision of the curricula also has to take into account the demands presented by international industry representatives from countries that send larger groups of students for the programmes under review. In addition to a large group of students in the programmes coming from Turkey, the HEI is dependent on decisions and funds from the Turkish Government. Therefore, all programmes need to comply with the curriculum requirements posed by the Higher Education Council of Turkey (YÖK) that defines what a graduate seeking to work in Turkey needs to have studied for certain professions. Furthermore, the HEI is forced to include some courses such as Chemistry and History in the programmes whose relation to the programmes learning outcomes is limited according to the peers. Nevertheless, the peers could understand the HEI's needs to comply with these regulations for economic reasons. At the same time, the study programmes encompass eight semesters, therefore no fundamental subject-specific courses need to be left outside.

The described learning outcomes as well as the Objectives-Module-Matrices were considered by the peers to be very precise, detailed but not over-extensive covering all important aspects of the respective Subject-Specific-Criteria (SSC). For all programmes, the coordinators defined a set of general educational objectives and more specific programme outcomes (see Appendix) that have been matched with the SSC of the respective Technical Committees. In another matrix, the defined programme outcomes have been assigned to the respective modules so that it is clear in which module which qualifications are taught.

Consequently, it became clear that students enrolled in the Bachelor Software Engineering will acquire a fundamental understanding of central concepts and methods of their discipline including mathematics, natural sciences and computing. They are also capable of applying design principles, methods and skills, using tools and techniques necessary for efficient and effective software engineering practice and communicating about these ideas verbally and in writing to both experts and non-technical people. Moreover, graduates will be able to use theoretical and applied knowledge to solve complex (software) engineering problems as well as to recognize the economic, business, judicial, ethical, global, environmental and societal impacts of software engineering.

For the Bachelor Management Information Systems, four more general educational objectives and seven programme learning outcomes have been defined and are published on the department's website. The HEI presents a matrix describing the impact of each course on the seven stated learning outcomes. According to these learning outcomes, the students will acquire effective verbal and written communication skills in the field of Information Technology, scientific foundations necessary for managing and maintaining information systems, the ability to identify, analyse, make decisions, apply strategies and implement

solutions in complex management-related problems. In addition, they shall have the fundamental knowledge regarding technical concepts and practices in IT when working with key information systems, such as operating systems, database systems, communication systems and networks. They are aware of current-day problems having an adequate understanding of professional, ethical, legal, security and social issues while also being enabled to work in an interdisciplinary research team and presenting their results effectively in word and writing.

For the Bachelor Electrical and Communication Engineering the HEI similarly presented a precise matrix including eleven programme outcomes well matched to the SSC of the Technical Committee 02. Thus, students will gain broad and sound knowledge in mathematics, natural sciences and engineering including complex phenomena related to Electronics and Communications, enabling them to apply this knowledge to engineering problems. They will be able to simulate and experimentally validate, gather data, analyse, critique, document and present results, they can recognize, identify, formulate and solve complex engineering problems and have basic knowledge of project management and risk management methods. Further, graduates will have gained the ability to design a complex system, electrical/electronic circuit, communication system, process or product according to given specifications, via consultation of norms, guidelines and safety regulations, considering criteria and conditions such as economics, environmental problems, sustainability, manufacturability, ethics, health, safety, socio-political problems and the ability to apply modern design methods to achieve the above. Moreover, graduates shall be aware of the professional and ethical responsibilities imparted on the intended engineering applications, gain the ability to access information with the knowledge of the necessity of life-long-learning to self-improve and to follow the latest innovations in science and technology as well as the ability to develop, choose and apply the modern techniques and tools, in the applications of Electronic and Communication Engineering, to effectively use information technologies.

Furthermore, the University applies for the EUR-ACE® (European Accredited Engineer) Label for the Bachelor Electrical and Communication Engineering. The EUR-ACE® Label is a quality certificate for engineering degree programmes and is recognized Europe-wide. During the accreditation process, the reviewers verified whether the degree programme complies with the criteria fixed in the EUR-ACE Framework Standards. The SSC of the Technical Committee 02 - Electrical Engineering/Information Technology are closely linked to the EUR-ACE Framework Standards; consequently, the analysis of the Subject-Specific Criteria encompasses the EUR-ACE Framework Standards. The peers confirm that the EUR-ACE Framework Standards regarding the intended learning outcomes are fulfilled for the Bachelor's degree programme in line with the Bologna Declaration.

In addition, the University applies for the Euro-Inf® (European Informatics) Label for the Bachelor Software Engineering and the Bachelor Management Information Systems. The Euro-Inf® Label is a quality certificate for informatics degree programmes and is recognized Europe-wide. During the accreditation process, the reviewers verified whether the degree programmes comply with the criteria fixed in the Euro-Inf® Framework Standards. The Subject-Specific Criteria (SSC) of the Technical Committee 04 - Informatics/Computer Science are closely linked to the Euro-Inf® Framework Standards; consequently, the analysis of the Subject-Specific Criteria encompasses the Euro-Inf® Framework Standards. The peers confirm that the Euro-Inf® Framework Standards regarding the intended learning outcomes are fulfilled for the Bachelor's degree programmes in line with the Bologna Declaration.

Moreover, the peers emphasise how well the students are received by future employers. During the audit discussions, the industry representatives were very satisfied with the graduates of the different programmes. According to the peers, this speaks for the intended learning outcomes of the three study programmes.

In conclusion, the peers asses that the described learning outcomes for all three study programmes adequately reflect the ASIIN Subject-Specific Criteria as well as the EQF-level 6 for Bachelor programmes.

Criterion 1.2 Name of the degree programme

Evidence:

- Self-Assessment Report
- Websites for all study programmes (accessed 20 August 2022):
  - https://www.eul.edu.tr/en/academic/faculties/faculty-of-engineering/electronics-and-communication-engineering/
  - https://www.eul.edu.tr/en/academic/faculties/faculty-of-engineering/software-engineering/
  - https://www.eul.edu.tr/en/academic/graduate-programs/school-of-applied-sciences/management-information-systems/
- SSC-based Objectives-Module-Matrices in the Self-Assessment Report

Preliminary assessment and analysis of the peers:
The peers consider the names of the study programmes to be adequately reflecting the respective aims and learning outcomes.

Criterion 1.3 Curriculum

Evidence:

- Curricula for all programmes are being presented in the Self-Assessment Report
- Diploma Supplements
- SSC-based Objectives-Module-Matrices for all programmes in the Self-Assessment Report
- Module Handbooks

Preliminary assessment and analysis of the peers:
The curricula of all three study programmes were being reviewed by the peers in order to identify whether the described learning objectives can be achieved by the available modules.

For the Software Engineering programme, the HEI describes the composition of the curriculum as follows: "The modules that constitute the programme's curriculum are classified according to knowledge areas […]. The modules are classified as Natural Sciences (NS), University Core (UC), University Elective (UE), Area Core (AC) and Technical Elective (TE). As can be seen from the table, the computer science and software engineering specific courses make up 52.82% of the curriculum, the TE courses make up 12.67% of the curriculum, the NS courses that include the mathematical, physics and chemistry courses mmakeup23.24% of the curriculum, and the UC and UE courses make up 7.04% and 4.23% of the curriculum, respectively. Thus, almost 66% of the modules make up the area or elective courses of the profession. The curriculum also includes mandatory summer training where the students are expected to complete 30 working days under the supervision of a certified engineer in the industry."

The first study year serves to convey basic knowledge in natural sciences in general ("Physics", "Physics Lab", "Chemistry", "Chemistry Lab", "Linear Algebra", and "Calculus") as well as Informatics ("Computing foundations", and "Computer Programming"). Furthermore, two consecutive English courses are part of the first study year. Moreover, History courses are part of the curriculum. There is one course for Non-Turkish speaking students; "History", introducing a brief history of Turkish Republic and Cyprus, and one course for Turkish speaking students; "Tarih", covering Turkish history in more detail. In the second and third year, qualifications as programming, analysis and design are being enhanced in modules such as "Digital Logic Design", "Discrete Mathematics", "Data Structures", "Ordinary Differential Equations", "Operating Systems", "Object-Oriented Programming", "Engineering Maths", "Probability and Statistical Methods", "Software Requirements Analysis and Spec-

ification", "Analysis of Algorithms", "Database Management Systems", "Systems Programming", "Software Design and Architecture", "Computer Networks", "Principles of Programming Languages", "Software Quality Assurance and Testing", and "Human Computer Interaction". After the third year, all students have to perform a thirty-days working practice that is reflected in a so-called "summer-training Log-Book" and therefore supervised by the HEI. In the final year, students take five technical elective courses in additional to the compulsory courses "Engineering Economics", "Strategic Planning and Management", "Software Project Management", and "Engineering Ethics". The topics of the electives include a variety of aspects, for example "Artificial Intelligence", "Internet Programming" or "Database Security". During the final year, students also have to prepare their graduation project, which is divided into two modules at a total value of 13 ECTS-credits. From the curriculum, the peers were convinced that all learning objectives described above could be reached by the programme.

However, the peers consider that some of the (advanced) programming content, especially taught in the technical electives of the programme needs to be updated, for example by introducing topics as *Cloud-Computing, Modern Fronted Technologies, NoSQL or DevOps*. More specifically, the experts advocate updating the technical elective course Internet Programming (COMP 464), e.g. by covering topics as *JSON, REST, GraphQL, and server side rendering*.

The EUL describe in its Self-Assessment Report that the courses of the Management Information Systems programme "are classified as Business Fundamentals (BF), Business Informatics (BI), Informatics Fundamentals (IF), and Other Fundamentals (OF). The main aim of the curriculum is to provide students with the fundamentals of computer-applied sciences, business, and management. During the four-year undergraduate programme, along with the basic courses on Informatics/computing and business, MIS degree offers to uncover graduates who can analyse, design, make decisions, apply strategies, implement solutions and manage information systems. In addition to basic informatics/computing courses, the department also offers a wide range of business and management-related courses which include macro/micro economics, accounting, and project management."

The curriculum of Management Information Systems starts with foundation and introductory courses as "Introduction to Computers", "Mathematics", "Economics", "Ethics in Profession", "Introduction to Information Systems", In addition, the students also have to take courses in English, Psychology, Sociology, Turkish and History. The second year enhances the students' skills in Management, Business and Informatics including courses in "Financial Accounting", "Principles of Management", "Mathematics for Social and Applied Sciences",

"Macroeconomics", "Principles of Marketing", "Statistics", "Principles of Law", "Principles of Operating Systems", "Programming for Management Information Systems", and "Software Requirements Analysis and Specification." In the third year, there are four courses assigned to Business Informatics ("Software Design and Architecture", "Human Resource Management", "Research Methods", "Human Factors in Computing"), three assigned to Business Fundamentals ("Production Management", "Purchasing and Cost Control", "Entrepreneurship"), two assigned to Informatics Fundamentals ("Database Management Systems", "Computer Networks") and one Technical Elective. In the final year, competences in project management are conveyed while students choose five electives; e. g. "Contemporary Issues in Business", "Network Security Theory", "International Business", "Artificial Intelligence" and other courses. Furthermore, the final year consists of the Summer Training as well as the Graduation Project, which is divided into two parts as well as in the other programmes. From the curriculum, the peers were convinced that all learning objectives described above could be reached by the programme. However, the peers recommend reconsidering the assignment of some courses to the category "Business Informatics", since the course "Research Methods" as well as two elective courses are assigned to this category, although this does not necessarily have to be the case. Therefore, the number of strict Business Informatics courses should be increased, as one third of the curriculum should have the type "Business Informatics". For example, courses as "ERP Systems" or "Business Process Management" should be introduced.

In Electronic and Communication Engineering students also acquire basic computer knowledge and programming skills ("Computing Foundations", "Computer Programming") during the first year in addition to non-technical courses ("English ", "History"/"Tarih"), introductory courses to Natural Sciences ("Physics" and "Chemistry"), Mathematics ("Calculus", "Linear Algebra"), and the introductory course "Introduction to Profession". In the second year, a focus is directed toward aspects of electrical engineering in courses such as "Digital Circuits", "Circuit Theory", "Electrical Materials", "Electromagnetic Theory", and "Electronics". Furthermore, students have to take the mathematical courses "Engineering Mathematics", "Ordinary Differential Equations", and "Probability & Statistics Methods". In the second half of the curriculum, further aspects of electrical engineering are taught (e.g. "Signals and Systems"). Students may specialize themselves through six "Technical Electives" courses and two "Free Electives" courses. The HEI lists five different areas of specialization (Signal Processing, Power Systems, Wireless Communication, Electromagnetics, Computer Networking) and assigns appropriate electives to each of them so that students are able to choose (technical) elective courses that fit together. In addition, after the third year, students take their 30-days working practice during the summer. The electives

in the last study year are being accompanied by courses as “Strategic Planning and Management”, “Engineering Ethics” and “Engineering Economics”. Eventually, in the fourth year, the graduation project assessed with 13 ECTS-credits has to be prepared. The graduation project is divided into two parts. In the seventh Semester, students should familiarise with their project, conduct their research and prepare their materials (3 ECTS) before implementing their project in the final semester (10 ECTS). To sum up, the peers are convinced that the curriculum covers all relevant aspects of the SSC.

Criterion 1.4 Admission requirements

Evidence:

- Admission Requirements on the University website (accessed 22 August 2022: https://www.eul.edu.tr/en/student-affairs/admissions-requirements/undergraduate-and-graduate-students/
- Self-Assessment report
- Audit Discussions

Preliminary assessment and analysis of the peers:
The HEI presents the following three admission regulations in the Self-Assessment Report:

“**Internationals**: The European University of Lefke admits international student’s alongside TRNC/Turkish nationals. The students must have a high school level diploma/certificate or its equivalent with good academic performance in order to the accepted. An international student with a minimum average diploma grade of 'C' is admitted to the program. International students who possess results of GCE/IGCSE/GCFE ‘O’ Levels examinations (or its equivalents), are also admitted provided they have a minimum grade of ‘C’ or above in 5 different subjects, of which one must include Mathematics.”

“**Turkish Republic of Northern Cyprus (TRNC) Nationals**: Nationals of TRNC who have successfully completed high school are admitted based upon the provision of excellent and suitable performance at entrance examinations conducted and administered by European University of Lefke. TRNC students who possess results of UK-Based GCE/IGCSE/GCFE ‘O’ Levels examinations (or its equivalents), are also admitted provided they have a minimum grade of ‘C’ or above in 5 different subjects, of which one must include Mathematics.”

“**Turkish Nationals:** The university admits students from Turkey via the central Turkish University Entrance Examination (LYS) which is conducted by the Office of Student Selection and Placements (OSYM). The Turkish Authorities coordinate this examination with the aim of managing Turkish student placements into Turkish Universities in Turkey as well as Turkish Cypriot Universities in TRNC. Students who are successful in this examination and have

selected our program at the European University of Lefke in their preference list are placed into our program depending on their examinations scores."

The "[a]dmission policies are published in the University promotion materials, on the University website (https://www.eul.edu.tr/en/student-affairs/admissions-requirements/undergraduate-and-graduate-students/) and in publications supporting individual programs. They are supported by admission advice provided by representative employed in Promotion Offices of EUL located in different countries. "

The peers criticized that the official admission regulations submitted were not in English. Furthermore, the experts consider the information on the website to be insufficient and not transparent, as the requirements are only listed briefly; e.g. it is not stated whether a certain minimum grade is required for access to the degree programmes.

However, during the discussion with the students, the peers were able to get a good impression of their English skills and were quite satisfied with them. Furthermore, employers of Alumni of all three Bachelor's degree programmes stated that they are very satisfied with the graduates. Consequently, the peers found the admission requirements for all programmes adequate, but not easily accessible and transparent.

Final assessment of the peers regarding criterion 1:

The peers asses Criterion 1 to be not fulfilled.

2. The degree programme: structures, methods and implementation

Criterion 2.1 Structure and modules

Evidence:

- Self-Assessment Report
- Curricula for all programmes as presented in the Self-Assessment Report
- Programme-outcomes-Modules-Matrices as presented in the Self-Assessment Report
- SSC-bases Objectives-Module-Matrices as presented in the Self-Assessment Report
- Module-handbooks
- Questionnaires and Surveys

Preliminary assessment and analysis of the peers:

All study programmes under review are divided into modules, which comprise a sum of teaching and learning. The panel found the structure of the modules in general to be adequate and manageable for the students.

As described above, the curricula offer a great variety of electives, leaving sufficient options for the students to set individual and flexible focuses on certain specializations. Furthermore, the curricula are constantly being revised and adapted to the changing demands from future employers, although in some aspects they have to reflect the structure defined by YÖK. In general, the peers were convinced, that the programme structures allow for an individual yet goal-oriented order of study in the designated time.

From the visit of the laboratories and the descriptions of the modules, the peers could apprehend that many courses implicate practical approaches that provide students with the necessary experience required for working in industry. The only internship forming part of all curricula is the 30-days work experience. The peers understood that the work experience during the summer holidays allows students to carry it out wherever they prefer, which is in most cases in their home countries. Since the majority of the students return to their home or other foreign countries for work after the completion of their studies this is thought to be reasonable. Through the compilation of the Log-Book, the university at the same time ensures that the working performance and the learning progresses are being documented. However, in the discussion round with the industry partners the need for a longer internship integrated in the curriculum was stated. Therefore, the peers argue that it could be useful not to divide the Graduation Project into two parts but to introduce a longer internship instead. This could also increase the chances of cooperation with industry partners for the graduation projects afterwards.

International mobility is only of marginal importance for the programmes under review because of the internationality of their students. For most students the stay at Lefke is already an international experience. At the same time, due to the political circumstances of Northern Cyprus, students are excluded from participation in Erasmus-partnerships. However, the university does have a limited number of bilateral agreements with other universities that allow students to go abroad if they wish. A laudable example of these efforts is the cooperation with Bradford University in England where talented students may partake in a dual degree programme. However, during the audit discussions, the peers conclude that the EUL could increase the support and promotion of this cooperation with Bradford. In any case, regulations for the recognition of competences and achievements acquired at other universities are publicly accessible through the website and are well in place.

Consequently, the peers are of the opinion that the structure of the curricula and modules were well organized and support an effective study progress.

Criterion 2.2 Work load and credits

Evidence:

- Self-Assessment Report
- Discussions during the Audit
- Module-handbooks
- Evaluation Questionnaires

Preliminary assessment and analysis of the peers:

The peers learned from the discussions during the on-site visit that the workload of all courses is regularly assessed as part of the course evaluations and that modifications are being introduced in case of grave differences. All courses are assigned with local as well as ECTS-credits. They understood that the Cypriot calculation is orientated to the Turkish system where theoretical hours and practical hours are assigned a different number of credits. Therefore, less Cypriot Credits are assigned to the Management Information Systems programme, as it consists of more theoretical courses in relation to the other two programmes. The most apparent example for these differences is the overall calculation indicated for the respective study programmes. While according to the self-assessment report, all three programmes consist of 240 ECTS-credits, the Bachelor Management Information Systems programme consists of 130 local Credits, Software Engineering of 142 and Electrical and Communication Engineering of 141 credits. However, after this issue was already discussed during the first accreditation of the programmes (by ASIIN), the EUL included the distribution of hours in the module descriptions, thus creating a high degree of transparency for the students. For this reason, the peers consider the assignment of Credits to be in order, especially since the students made clear in the discussions that the workload is continuously reviewed and revised and is not considered excessive.

Criterion 2.3 Teaching methodology

Evidence:

- Self-Assessment Report
- Discussions during the Audit
- Module-handbooks

Preliminary assessment and analysis of the peers:
It has already been outlined that teaching in the three programmes includes many practical approaches which is welcomed by the peers. In general, teaching includes lectures, classroom exercises, tutorials, group exercises, laboratory work, group and individual projects as well as seminars. From the discussion with the teaching staff, it became apparent that the teaching methodology includes modern didactical approaches and technological innovations. Materials for all modules are being presented on the platform Moodle where also details about the schedule, assignments, etc. are made accessible. Several staff members explained to the panel how they involved practical approaches and real-life project work into their courses in order to keep up student enthusiasm. The peers liked how the teaching staff emphasized industry co-operations in order to prepare their students to normal work cycles, project management and industry demand.

During the on-site-visit, the peers also gained a very positive impression of the laboratories available which are not only equipped with modern technology but also offer handbooks for several courses that allow students in self-study to understand experiments, how to perform them and how to advance. In sum, the peers were convinced that the teaching methodology applied in the programmes under review is mostly state-of-the-art and ensures the learning progress of all students. However, the peers think that the HEI could introduce more seminars and strengthen students' technical writing.

Criterion 2.4 Support and assistance

Evidence:

- Self-Assessment Report
- Discussions during the Audit

Preliminary assessment and analysis of the peers:
The panel had a very good impression from the offers related to support and assist the students. They learned that for the EUL it is of primary importance that all students are constantly advised about and supervised in their progresses. In line with this, the students also stated that they are very satisfied with the programme as well as the assistance. Regarding the professional support in their studies, the students commended the staff's dedication. Teachers were usually open to questions and easy to contact and the students described that individual problems are solved quickly and effectively. In the discussion during the audit, the peers came to the view that the teaching staff seems to be very committed. Based on this, the peers have the opinion that there seems to be a very good relation between the students and the teaching staff. Overall, the peers concluded that the support and assistance offered is beneficial to the academic success.

However, the peers perceived a few inconveniences in finding internships, especially for international students. As it is difficult for non-Turkish students to find internships in Turkey, the university should strengthen its international industry connections to be able to support its students in finding internships abroad, as the number of possible internships in Northern Cyprus is limited.

On the campus, the students are offered a great variety of recreation areas as well as support options, they have access to psychological counselling, medical care – they were offered vaccines since the Covid-pandemic - and a wide range of cultural activities with special focus on the multicultural background of the students.

Final assessment of the peers regarding criterion 2:

The peers asses criterion 2 to be fulfilled.

3. Exams: System, concept and organisation

Criterion 3 Exams: System, concept and organisation

Evidence:

- SSC-based Objectives-Module-Matrices for all programmes in the Self-Assessment Report
- Self-Assessment Report
- Module Handbooks
- Discussions during the Audit
- Examination Regulations
- Questionnaires and Surveys
- Academic calendar displaying the examination period

Preliminary assessment and analysis of the peers:

Each course-content in the reviewed study programmes is reflected in exams, which are distributed in two examination periods each semester, the midterm and the final period. The exams are usually taken in the form of a written test while additional tasks such as homework, quizzes, project works and presentations make use of alternative examination forms. Consequently, the peers suggested that the number of oral exams should be increased where it seems to be reasonable in order to enhance the students' skills in conducting presentations. While the skill to give a previously prepared presentation is certainly

important, students should also be able to answer spontaneously asked questions demonstrating their flexibility and creativity on previously defined fields of study.

The dates of the exams are scheduled in advance at the beginning of each year while the type of the exam is announced to the students at the beginning of each semester. Re-sit exams for the final exams are offered each semester after the grades are announces and before the registration for the next semester. Additionally, an election of courses is also offered each summer in form of a condensed summer school. During seven weeks, students may repeat the course and take the exam thus allowing them to remain in their planned curriculum without losing more time.

Final assessment of the peers regarding criterion 3:

The peers asses criterion 3 to be fulfilled.

4. Resources

Criterion 4.1 Staff

Evidence:

- Self-Assessment Report including Student-Teacher-Ratio, Academic staff, Equipment and Financial Resources
- On-site-visit
- Discussions during the Audit

Preliminary assessment and analysis of the peers:

Along with the information in the SAR, the HEI presented detailed staff handbooks for all study programmes. On this basis, the peers were convinced that the number of staff assigned to the programmes was sufficient to properly sustain the degree programmes. The average ratio of students to teachers appeared to be excellent (8:1 in ECE, 6:1 in MIS and 15:1 in Software Engineering). All teachers are of outstanding qualification, most of them have international degrees and excellent English. In the discussion with the staff, the panel learned that the teaching staff feels very well supported by the University, teaching reductions can be obtained for research projects and bonuses are paid for the publication of articles. For example, professors get $1000 when they publish with someone from another university. If they publish with someone from EUL, they both receive $500. Through this, the HEI would like to motivate the teaching staff to cooperate with international professors. The peers consider this financial compensation for publications in high rated journals to be good practice.

In summary, the panel had no doubt about the qualification and the sufficient quantity of the staff for all study programmes.

Criterion 4.2 Staff development

Evidence:

- Self-Assessment Report including Student-Teacher-Ratio, Academic staff, Equipment and Financial Resources
- On-site-visit
- Discussions during the Audit

Preliminary assessment and analysis of the peers:
As mentioned above, the staff feels well supported by the University in terms of research as well as individual development. Several offers are made by the University for teachers to go abroad during the holidays or to attend conferences. Related to this, the lecturers confirmed that they are free to go to conferences and that there is no limitation. If at all, there is a financial constraint, but all lecturers confirmed during the audit discussions that this has never been an issue. Furthermore, during the audit the teaching staff explained that it is possible for them to take a sabbatical and work at another university for one year.

Criterion 4.3 Funds and equipment

Evidence:

- Self-Assessment Report including Student-Teacher-Ratio, Academic staff, Equipment and Financial Resources
- On-site-visit
- Discussions during the Audit

Preliminary assessment and analysis of the peers:
The peers found that the funding and the equipment of the University as a whole but especially of the three programmes under review are sufficient. During the tour on the premises, it became obvious that most buildings are new, laboratories are well-equipped and designed to fit the needs of disabled persons. Analysing the equipment, the peers remark that it is absolutely fitting the needs of Bachelor programmes. In addition, the students confirm that they are very satisfied with the equipment and accessibility of the laboratories and that they meet the needs of the respective programmes and their educational requirements.

Final assessment of the peers regarding criterion 4:

The peers asses criterion 4 to be completely fulfilled.

5. Transparency and documentation

Criterion 5.1 Module descriptions

Evidence:

- Module handbooks ("Course outlines") for all study programmes presented with the Self-Assessment Report

Preliminary assessment and analysis of the peers:

The peers appreciated the module descriptions presented beforehand with the self-assessment report. From the documentation and during the discussion with teaching staff and students they made certain that a complete description for each module is available to the students through an eLearning-platform thus ensuring that all students have sufficient information about the courses and their contents in advance. However, the peers found out that these course descriptions are not published on the departments' websites. The peers advocate publishing these descriptions online in order to give students and prospective students a transparent and detailed insight into the curriculum in advance.

Criterion 5.2 Diploma and Diploma Supplement

Evidence:

- Exemplary Diploma Supplement for each degree programme

Preliminary assessment and analysis of the peers:

Along with the self-assessment report, the HEI presents exemplary Diploma Supplements for each degree programme covering all required information about the programme contents, the curricula, the calculation of the final grade, a relative grade that allows for the classification of the individual grade in the context of the study cohort, and the Northern Cypriot system of higher education. However, the peers recommend that the relevant learning outcomes should also be included in the respective Diploma Supplement.

Criterion 5.3 Relevant rules

Evidence:

- Admission Requirements
- Examination Regulations and Grading System
- Academic Calendar

- Senate Decision About Curriculum
- University Governance and Organization (including Organisation Chart)

Preliminary assessment and analysis of the peers:
The peers realized that regulations for all important aspects of student life and the respective degree programmes have been issued by the HEI and are accessible to the students via an online platform. Furthermore, students in all three study programmes must attend the respective course "Introduction to Profession" in the first semester, in which they are also taught about the organisation and policies of the university. During the discussion with the students, they made sure that all participants knew perfectly well where to find any regulations, whom to contact, what are their rights and their duties. Nevertheless, the peers could not find all regulations online, which might be helpful to further increase the HEI's transparency and make decisions easier for those who are interested in studying at the European University of Lefke.

Final assessment of the peers regarding criterion 5:

The peers asses criterion 5 to be fulfilled.

6. Quality management: quality assessment and development

Criterion 6 Quality management: quality assessment and development

Evidence:

- Samples of questionnaires for Industry partners, graduates, students, course evaluations and course-learning-outcomes as part of the Self-Assessment Report
- Audit-discussions

Preliminary assessment and analysis of the peers:
The quality management at the EUL and the reviewed degree programmes was scrutinized by the peers and considered to be manifold, well organized and effective. The HEI showed during the audit that a continuous evaluation by the students as well as the graduates is essential for the programme coordinators and the rector. At the same time, students evaluate the programme at several stages of their studies, industry representatives are frequently asked for their opinion of the qualification of programme graduates and, of course, all courses are being evaluated by the students. As part of the course evaluation the workload of the students is also assessed and, if necessary, modified. In the discussion with the

students, the expert team got the impression that the students were content with the degree to which they are involved in the quality management process and that the criticism they express in the evaluations leads to a constant improvement of the programmes. During the audit discussions, some students explained that they were asked at the beginning and end of the semester, if they wanted to change anything. This is then discussed in class. Furthermore, the students mentioned a positive example where the students claimed that a course was too full, whereupon the HEI split the classes. In general, the students seemed to be very satisfied with the communication between them and the teaching staff and confirmed that it is always possible to talk to the professors or the dean to solve problems immediately.

Another point discussed during the audit is the transparency of statistics on applications, failures, and dropouts. During the audit discussions, the experts gained the impressions that these rates are neither collected in a transparent and uniform way nor published (internally). Therefore, the peers are of the opinion that the HEI should develop a uniform process for collecting statistics on applications, failures, and dropout rates.

In summary, the expert team finds that the quality management at EUL is adequate and aims at continuous improvement of the programmes, even when there is still room for improvement, especially with regard to the transparent and consistent collection and publication of application, failures, and dropout rates.

Final assessment of the peers after the comment of the Higher Education Institution regarding criterion 6:

The peers consider that criterion 6 is not fulfilled.

D Additional Documents

Before preparing their final assessment, the panel ask that the following missing or unclear information be provided together with the comment of the Higher Education Institution on the previous chapters of this report:

No additional documents needed

E Comment of the Higher Education Institution

The institution provided no statement.

F Summary: Peer recommendations (09.09.2022)

Taking into account the additional information and the comments given by the peers summarize their analysis and **final assessment** for the award of the seals as follows:

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
Ba Electronics and Communication Engineering	With requirements for one year	30.09.2029	EUR-ACE®	30.09.2027
Ba Software Engineering	With requirements for one year	30.09.2029	Euro-Inf®	30.09.2029
Ba Management Information Systems	With requirements for one year	30.09.2029	Euro-Inf®	30.09.2029

Requirements

For all degree programmes

A 1. (ASIIN 1.4) The admission requirements should be published in English and more detail on the University's website to provide transparent information.

A 2. (ASIIN 6) The university should introduce a uniform process for collecting statistics on applications, failures, and dropout rates.

Recommendations

For all degree programmes

E 1. (ASIIN 2.1) It is recommended not to split the Graduation Project into two parts, but to introduce a longer internship instead.

E 2. (ASIIN 2.4) It is recommended to strengthen the international industry connections to be able to support the students in finding internships abroad, as the number of possible internships in Northern Cyprus is limited.
E 3. (ASIIN 3) It is recommended to introduce oral exams in modules where this might be reasonable in order to enhance the students' skills in conducting presentations.
E 4. (ASIIN 5.1) It is recommended to publish the corresponding module descriptions on the websites of the respective departments in order to give students and prospective students a transparent and detailed insight into the curriculum in advance.
E 5. (ASIIN 5.2) It is recommended to include the programme learning outcomes into the Diploma Supplements.
E 6. (ASIIN 5.3) It is recommended to publish all relevant rules on the websites of the degree programmes.

For the Bachelor Software Engineering

E 7. (ASIIN 1.3) It is recommended to update the programming content covered in the technical electives of the programme.

For the Bachelor Management Information Systems

E 8. (ASIIN 1.3) It is recommended to reconsider the assignment of courses to the category "Business Informatics" and increase the number of strict "Business Informatics" courses.

G Comment of the Technical Committees

Technical Committee 02 – Electrical Engineering/Information Technology (16.09.2022)

Assessment and analysis for the award of the ASIIN seal:

The Technical Committee follows the peers' assessment.

Assessment and analysis for the award of the EUR-ACE® Label:

The Technical Committee deems that the intended learning outcomes of the degree programme do comply with the engineering specific parts of Subject-Specific Criteria of the Technical Committee 02 – Electrical Engineering/Information Technology.

The Technical Committee 02 – Electrical Engineering/Information Technology recommends the award of the seals as follows:

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
Ba Electronics and Communication Engineering	With requirements for one year	30.09.2029	EUR-ACE®	30.09.2027

Technical Committee 04 – Informatics/Computer Science (16.09.2022)

Assessment and analysis for the award of the ASIIN seal:

The TC is in favour of formulating the two requirements A 1 and A 2 more strictly. Furthermore, the TC wants to convert the requirements E 4 and E 6 into requirements. Moreover, the TC discusses the recommendation E 3 and comes to the result that oral exams do not necessarily enhance the students' skills in conducting presentations and therefore is in favour to delete the second part of the E 3. Otherwise, the TC agrees with the peers without any changes.

Assessment and analysis for the award of the Euro-Inf® Label:

The Technical Committee deems that the intended learning outcomes of the degree programmes do comply with the Subject-Specific Criteria of the Technical Committee 04 – Informatics/Computer Science.

The Technical Committee 04 – Informatics/Computer Science recommends the award of the seals as follows:

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
Ba Software Engineering	With requirements for one year	30.09.2029	Euro-Inf®	30.09.2029
Ba Management Information Systems	With requirements for one year	30.09.2029	Euro-Inf®	30.09.2029

Requirements

For all degree programmes

A 1. (ASIIN 1.4) Publish the admission requirements in English and in more detail on the University's website to provide transparent information.
A 2. (ASIIN 6) Introduce a uniform process for collecting statistics about applications, failures, and dropout rates.
A 3. (ASIIN 5.1) Publish the corresponding module descriptions on the websites of the perspective departments in order to give students and prospective students a transparent and detailed insight into the curriculum in advance.
A 4. (ASIIN 5.3) Publish all relevant rules on the websites of the degree programmes.

Recommendations

For all degree programmes

E 3. (ASIIN 3) It is recommended to introduce oral exams in modules where this might be reasonable.

Technical Committee 07 – Business Informatics/Information Systems (16.09.2022)

Assessment and analysis for the award of the ASIIN seal:

The technical committee discusses the procedure and comes to the conclusion that recommendation E 7 is formulated too strongly. The committee sees the point that the allocation of subjects to the category "Business Informatics" should be reconsidered, but the committee sees no reason to recommend that the university increase the number of subjects in this category, since even without the courses mentioned in the report, there are still enough courses from the area of "Business Informatics". Otherwise, the TC agrees with the peers' assessment without any changes.

Assessment and analysis for the award of the Euro-Inf® Label:

The Technical Committee deems that the intended learning outcomes of the degree programmes do comply with the Subject-Specific Criteria of the Technical Committee 07 – Business Informatics/Information Systems.

The Technical Committee 07 – Business Informatics/Information Systems recommends the award of the seals as follows:

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
Ba Management Information Systems	With requirements for one year	30.09.2029	Euro-Inf®	30.09.2029
Ba Software Engineering	With requirements for one year	30.09.2029	Euro-Inf®	30.09.2029

Recommendations

For the Bachelor Management Information Systems

E 8. (ASIIN 1.3) It is recommended to reconsider the assignment of courses to the category "Business Informatics."

H Decision of the Accreditation Commission (23.09.2022)

Assessment and analysis for the award of the subject-specific ASIIN seal:

The accreditation commission discusses the procedure. The TC follows the assessment of the TC 04 and decides to reformulate the requirements A1 and A2 and extends the requirement A 2 to clarify. In addition, the TC decides to convert the recommendations E 4 and E 6 into requirements. Moreover, the AC follows the assessment of the TC 07 regarding the requirement E 8.

Assessment and analysis for the award of the EUR-ACE® Label:

The Accreditation Commission deems that the intended learning outcomes of the Bachelor's degree programme Electronics and Communication Engineering do comply with the engineering specific parts of Subject-Specific Criteria of the Technical Committee 02 – Electrical Engineering/Information Technology.

Assessment and analysis for the award of the Euro-Inf® Label:

The Accreditation Commission deems that the intended learning outcomes of the Bachelor's degree programmes Software Engineering and Management Information Systems do comply with the Subject-Specific Criteria of the Technical Committee 04 – Informatics/Computer Science.

The Accreditation Commission decides to award the following seals:

Degree Programme	**ASIIN Seal**	**Maximum duration of accreditation**	**Subject-specific label**	**Maximum duration of accreditation***
Ba Software Engineering	With requirements for one year	30.09.2029	Euro-Inf®	30.09.2029
Ba Management Information Systems	With requirements for one year	30.09.2029	Euro-Inf®	30.09.2029

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation*
Ba Electronics and Communication Engineering	With requirements for one year	30.09.2029	EUR-ACE®	30.09.2027

*Subject to the approval of the ENAEE Administrative Council

Requirements

For all degree programmes

A 1. (ASIIN 1.4) Publish the admission requirements in English and in more detail on the University's website to provide transparent information.

A 2. (ASIIN 6) Introduce a uniform process for collecting statistics about applications, failures, and dropout rates.

A 3. (ASIIN 5.1) Publish the corresponding module descriptions on the websites of the perspective departments in order to give students and prospective students a transparent and detailed insight into the curriculum in advance.

A 4. (ASIIN 5.3) Publish all relevant rules on the websites of the degree programmes.

Recommendations

For all degree programmes

E 1. (ASIIN 2.1) It is recommended not to split the Graduation Project into two parts, but to introduce a longer internship instead.

E 2. (ASIIN 2.4) It is recommended to strengthen the international industry connections to be able to support the students in finding internships abroad, as the number of possible internships in Northern Cyprus is limited.

E 3. (ASIIN 3) It is recommended to introduce oral exams in modules where this might be reasonable in order to enhance the students' skills in conducting presentations.

E 4. (ASIIN 5.2) It is recommended to include the programme learning outcomes into the Diploma Supplements.

For the Bachelor Software Engineering

E 5. (ASIIN 1.3) It is recommended to update the programming content covered in the technical electives of the programme.

For the Bachelor Management Information Systems

E 6. (ASIIN 1.3) It is recommended to reconsider the assignment of courses to the category “Business Informatics.”

I Fulfilment of Requirements (22.09.2023)

Analysis of the peers and the Technical Committees (14.09.2023)

Requirements

For all degree programmes

A 1. (ASIIN 1.4) Publish the admission requirements in English and in more detail on the University's website to provide transparent information.

Initial Treatment	
Peers	fulfilled Vote: unanimous Justification: The University has published admission requirements in English on their websites as required.
TC 02	fulfilled Vote unanimous Justification: The TC 02 follows the vote of the experts.
TC 04	fulfilled Vote unanimous Justification: The TC 04 follows the vote of the experts.
TC 07	fulfilled Vote unanimous Justification: The TC 07 follows the vote of the experts.
AC	fulfilled Vote unanimous Justification: The AC follows the vote of the experts and the Technical Committees.

A 2. (ASIIN 6) Introduce a uniform process for collecting statistics about applications, failures, and dropout rates.

Initial Treatment	
Peers	not fulfilled Vote: unanimous Justification: The University has not provided any documents/ information on a (new) uniform procedure for collecting statistics

	on applications, failure, and drop-out rates. Thererfore, there is no evidence for the fulfilment of requirement 2.
TC 02	Not fulfilled Vote unanimous Justification: The TC 02 follows the vote of the experts.
TC 04	Not fulfilled Vote unanimous Justification: The TC 04 follows the vote of the experts.
TC 07	Not fulfilled Vote unanimous Justification: The TC 07 follows the vote of the experts.
AC	Not fulfilled Vote unanimous Justification: The AC follows the vote of the experts and the Technical Committees.

A 3. (ASIIN 5.1) Publish the corresponding module descriptions on the websites of the perspective departments in order to give students and prospective students a transparent and detailed insight into the curriculum in advance.

Initial Treatment	
Peers	fulfilled Vote: unanimous Justification: The University has published the corresponding module descriptions on their websites as required
TC 02	fulfilled Vote unanimous Justification: The TC 02 follows the vote of the experts.
TC 04	fulfilled Vote unanimous Justification: The TC 04 follows the vote of the experts.
TC 07	fulfilled Vote unanimous Justification: The TC 07 follows the vote of the experts.
AC	fulfilled Vote unanimous Justification: The AC follows the vote of the experts and the Technical Committees.

A 4. (ASIIN 5.3) Publish all relevant rules on the websites of the degree programmes.

Initial Treatment	
Peers	fulfilled

	Vote: unanimous Justification: The University has published all relevant rules on the websites of the degree programmes as required
TC 02	fulfilled Vote unanimous Justification: The TC 02 follows the vote of the experts.
TC 04	fulfilled Vote unanimous Justification: The TC 04 follows the vote of the experts.
TC 07	fulfilled Vote unanimous Justification: The TC 07 follows the vote of the experts.
AC	fulfilled Vote unanimous Justification: The AC follows the vote of the experts and the Technical Committees.

Decision of the Accreditation Commission (22.09.2023)

Degree programme	**ASIIN-label**	**Subject-specific label**	**Accreditation until max.**
Ba Software Engineering	Requirement 2 not fulfilled	Euro-Inf	6 months prolongation
Ba Management Information Systems	Requirement 2 not fulfilled	Euro-Inf	6 months prolongation
Ba Electronics and Communication Engineering	Requirement 2 not fulfilled	EUR-ACE	6 months prolongation

Appendix: Programme Learning Outcomes and Curricula

According to its website (https://www.eul.edu.tr/en/academic/faculties/faculty-of-engineering/electronics-and-communication-engineering/, accessed on 03. September 2022) the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Bachelor degree programme Electronics and Communication Engineering:

Educational Objectives:

- EO1: Graduates actively start and improve their professional careers in their field or in a multi-disciplinary area in international organizations/institutions.
- EO2: Graduate are able to continue on to postgraduate studies and take part in research and development in a related field.
- EO3: Graduates are capable of self-motivation and self-improvement, consequently who are actively involved in various certificate programs, courses or symposia.
- EO4: Graduates have leadership and team-working abilities and are able to excel through their peers and become entrepreneurs.

Learning Outcomes:

- PO1: To have gained broad and sound knowledge in mathematics, natural sciences and engineering including complex phenomena related to Electronics and Communications, enabling them to apply this knowledge to engineering problems.
- PO2: The ability to apply the obtained broad Engineering knowledge in disciplinary or multidisciplinary contexts, in either individual or team setting.
- PO3: To have gained the ability to simulate and experimentally validate, gather data, analyse, critique, document and present results in the area of Electronic and Communication Engineering.
- PO4: To be able to research technical literature, and other sources of information relating given problems, and effectively communicate, both verbally and in writing, whilst working on projects and in professional venues.
- PO5: To have gained the ability to recognise, identify, formulate and solve complex engineering problems by selecting and applying the appropriate analysis and modelling tools, whilst being aware of the limits of the applied methods and materials.

- PO6: To have knowledge of project management and risk management methods, awareness about entrepreneurship, inventiveness and sustainable improvement in the area of Electronic and Communication Engineering.
- PO7: The ability to design a complex system, electrical/electronic circuit, communication system, process or product according to given specifications, via consultation of norms, guidelines and safety regulations, considering criteria and conditions such as economics, environmental problems, sustainability, manufacturability, ethics, health, safety, socio-political problems and the ability to apply modern design methods to achieve the above
- PO8: To be aware of the professional and ethical responsibilities imparted on the intended engineering applications.
- PO9: The ability to access information with the knowledge of the necessity of life-long-learning, to self-improve and to follow the latest innovations in science and technology.
- PO10: The ability to develop, choose and apply the modern techniques and tools, in the applications of Electronic and Communication Engineering, to effectively use information technologies.
- PO11: To have knowledge and awareness about the problems of the era, the universal and communal impact of Electrical Engineering applications on health, environment and safety.

The following **curriculum** is presented:

ELECTRONICS & COMMUNICATION ENGINEERING							
1st SEMESTER				2nd SEMESTER			
Course Code	Course Name	CREDIT	ECTS	Course Code	Course Name	CREDIT	ECTS
COM101	ENGLISH I	(3,0)3	3	COM108 / ORT108	HISTORY / TARİH	(2,0)2	2
COM111	CHEMISTRY	(3,0)3	4	COM110	ENGLISH II	(3,0)3	3
ENG131	PHYSICS I	(3,0)3	4	COM122	PHYSICS II	(3,0)3	5
COMP117	COMPUTING FOUNDATIONS	(3,2)4	6	COMP124	COMPUTER PROGRAMMING	(3,2)4	6
ECE119	INTRODUCTION TO PROFESSION	(2,0)0	2	ENG122	PHYSICS II LAB	(0,2)1	2
ENG111	CHEMISTRY LAB	(0,2)1	2	MATH109	LINEAR ALGEBRA	(3,0)3	5
ENG121	PHYSICS I LAB	(0,2)1	2	MATH110	CALCULUS II	(3,2)4	7
MATH101	CALCULUS I	(3,2)4	7				
TOTAL		19	30	TOTAL		20	30
3rd SEMESTER				4th SEMESTER			
COM106 / ORT106	TURKISH / TÜRKÇE	(2,0)2	2	ECE214	ELECTROMAG THEORY I	(3,0)3	6
ECE203	DIGITAL CIRCUITS I	(2,2)3	8	ECE216	CIRCUIT THEORY II	(3,2)4	8
ECE205	CIRCUIT THEORY I	(3,2)4	8	ECE204	ELECTRONICS I	(3,2)4	8
ECE227	ELECTRICAL MATERIALS	(3,0)3	5	MATH224	ENGINEERING MATHS	(3,0)3	5
MATH201	ORDINARY DIFFERENTIAL EQUATIONS	(3,2)4	5	MATH226	PROBABILITY & STATISTIC METHODS	(3,0)3	5
TOTAL		16	28	TOTAL		17	32
5th SEMESTER				6th SEMESTER			
COMP333	COMPUTER ARCHITECTURE AND ORGANIZATION	(3,2)4	6	ECE308	MICROPROCESSOR SYSTEMS	(3,2)4	7
ECE311	ELECTRONICS II	(3,2)4	7	ECE312	COMMUNICATION ENGINEERING	(2,2)3	4
ECE317	ELECTROMAGNETIC THEORY II	(3,0)3	6	ECEXX1	TECHNICAL ELECTIVE I	(3,0)3	5
EE317	SIGNALS AND SYSTEMS	(3,0)3	6	ECEXX2	TECHNICAL ELECTIVE II	(3,0)3	5
LEUXX1	FREE ELECTIVE I	(3,0)3	4	EE322	CONTROL SYSTEMS	(3,0)3	6
				LEUXX2	FREE ELECTIVE II	(3,0)3	4
TOTAL		17	29	TOTAL		19	31
7th SEMESTER				8th SEMESTER			
ECE310	SUMMER TRAINING	(0,1)0	2	ECE403	DIGITAL COMMUNICATION	(3,0)3	5
ECE408	DIGITAL SIGNAL PROCESSING	(3,0)3	5	ECE420	GRADUATION PROJECT II	(0,6)5	10
ECE410	GRADUATION PROJECT I	(0,3)1	3	ECEXX5	TECHNICAL ELECTIVE V	(3,0)3	5
ECEXX3	TECHNICAL ELECTIVE III	(3,0)3	5	ECEXX6	TECHNICAL ELECTIVE VI	(3,0)3	5
ECEXX4	TECHNICAL ELECTIVE IV	(3,0)3	5	ENGG434	ENGINEERING ETHICS	(3,0)3	5
ECON413	ENGINEERING ECONOMICS	(3,0)3	5				
BUSN461	STRATEGIC PLANNING AND MANAGEMENT	(3,0)3	5				
TOTAL		16	30	TOTAL		17	30

Table 1.11 The ECE Technical Elective Courses

Course Code	Course Name	Credit	ECTS
EE321	Satellite Communications	3	5
EE327	Introduction to Mobile Communication	3	5
EE329	Introduction. to Telecoms Networks	3	5
EE341	Electromechanical Energy Conversion	3	5
EE409	High Voltage Engineering	3	5
EE418	Microwave Theory and Design	3	5
EE419	Narrowband Wireless Communications	3	5
EE429	Antennas and Propagation	3	5
EE431	Princ. of Digital Image Processing	3	5
EE432	Wideband Mobile Communications	3	5
EE433	Fibre Optic Communications	3	5
EE436	Power System Analysis I	3	5
EE437	Renewable Energy Systems and Utilization	3	5
COMP448	Artificial Neural Networks	3	5
COMP415	Artificial Intelligent	3	5

According to its website (https://www.eul.edu.tr/en/academic/faculties/faculty-of-engineering/software-engineering/, accessed on 03. September 2022) the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Bachelor degree programme Software Engineering:

Educational Objectives:

- EO1: To be practicing software engineers who demonstrate an ability to design and develop software in a professional manner, making use of software engineering knowledge, appropriate tools and practices.
- EO2: To strive to meet the specific needs of industry and/or academia, able to contribute effectively in research and development, as part of a team and on an individual basis.
- EO3: To be aware of the need for lifelong-learning and personal and professional growth in a computing world that is continually changing whilst possessing ethical consciousness and global awareness.
- EO4: To work towards demonstrating leadership and entrepreneurship in their profession.

Learning Outcomes:

i. Adequate knowledge in mathematics, science and engineering subjects pertaining to the Software engineering discipline; ability to use theoretical and applied knowledge to solve complex engineering problems.
ii. Ability to identify, formulate, and solve complex engineering problems; ability to select and apply proper analysis and modeling methods for this purpose.
iii. Ability to design a complex system, process, device or product under realistic constraints and conditions, in such a way as to meet the desired result; ability to apply modern design methods for this purpose.
iv. Ability to devise, select, and use modern techniques and tools needed for analyzing and solving complex problems encountered in Software engineering practice; ability to employ information technologies effectively.
v. Ability to design and conduct experiments, gather data, analyze and interpret results for investigating complex engineering problems or Software engineering specific research questions.
vi. Ability to work efficiently in intra-disciplinary and multi-disciplinary teams; ability to work individually.

vii. Ability to communicate effectively in Turkish, both orally and in writing; knowledge of a minimum of one foreign language; ability to write effective reports and comprehend written reports, prepare design and production reports, make effective presentations, and give and receive clear and intelligible instructions.

viii. Recognition of the need for lifelong learning; ability to access information, to follow developments in science and technology, and to continue to educate him/herself

ix. Consciousness to behave according to ethical principles and professional and ethical responsibility; knowledge on standards used in engineering practice.

x. Knowledge about business life practices such as project management, risk management, and change management; awareness in entrepreneurship, innovation; knowledge about sustainable development.

xi. Knowledge about the global and social effects of Software engineering practices on health, environment, and safety, and contemporary issues of the century reflected into the field of engineering; awareness of the legal consequences of engineering solutions.

xii. Competence in modelling software architectures, using design patterns and implementing requirements analysis.

xiii. Knowledge in software quality assurance activities and documentation together with testing strategies for producing engineering projects.

The following **curriculum** is presented:

Table 1.13: Software Engineering Programme Curriculum

SEMESTER 1-3-5-7					SEMESTER 2-4-6-8				
COURSE CODE	COURSE NAME	CREDITS	ECTS	COURSE TYPE	COURSE CODE	COURSE NAME	CREDITS	ECTS	COURSE TYPE
COM101	ENGLISH I	(3,0)3	3	Compulsory	COM108 / ORT108	HISTORY* / TARİH**	(2,0)2	2	Compulsory
COM111	CHEMISTRY	(3,0)3	4	Compulsory	COM110	ENGLISH II	(3,0)3	3	Compulsory
ENG131	PHYSICS I	(3,0)3	4	Compulsory	COM122	PHYSICS II	(3,0)3	5	Compulsory
COMP117	COMPUTING FOUNDATIONS	(3,2)4	6	Compulsory	COMP124	COMPUTER PROGRAMMING	(3,2)4	6	Compulsory
COMP119	INTRODUCTION TO PROFESSION	(2,0)0	2	Compulsory	ENG122	PHYSICS II LAB	(0,2)1	2	Compulsory
ENG111	CHEMISTRY LAB	(0,2)1	2	Compulsory	MATH109	LINEAR ALGEBRA	(3,0)3	5	Compulsory
ENG121	PHYSICS I LAB	(0,2)1	2	Compulsory	MATH110	CALCULUS II	(3,2)4	7	Compulsory
MATH101	CALCULUS I	(3,2)4	7	Compulsory					
		19	30				20	30	
COMP205	DIGITAL LOGIC DESIGN	(3,2)4	6	Compulsory	COMP214	OPERATING SYSTEMS	(3,0)3	6	Compulsory
COMP209	DISCRETE MATHEMATICS	(3,0)3	5	Compulsory	COMP218	OBJECT-ORIENTED PROGRAMMING I	(3,2)4	8	Compulsory
COMP217	DATA STRUCTURES	(3,2)4	7	Compulsory	UEXX2	UNIVERSITY ELECTIVE	(3,0)3	4	Free Elective
UEXX1	UNIVERSITY ELECTIVE	(3,0)3	4	Free Elective	MATH224	ENGINEERING MATHS	(3,0)3	5	Compulsory
MATH201	ORDINARY DIFFERENTIAL EQUATIONS	(3,2)4	5	Compulsory	MATH226	PROBABILITY & STATISTIC METHODS	(3,0)3	5	Compulsory
					SENG212	SOFTWARE REQUIREMENTS ANALYSIS AND SPECIFICATION	(3,0)3	5	Compulsory
		18	27				19	33	
COMP315	OBJECT-ORIENTED PROGRAMMING II	(3,2)4	8	Compulsory	COM106 / ORT106	TURKISH* / TÜRKÇE**	(2,0)2	2	Compulsory
COMP335	ANALYSIS OF ALGORITHMS	(3,0)3	4	Compulsory	COMP342	COMPUTER NETWORKS	(3,0)3	5	Compulsory
COMP337	DATABASE MANAGEMENT SYSTEMS	(3,2)4	7	Compulsory	COMP364	PRINCIPLES OF PROGRAMMING LANGUAGES	(3,2)4	7	Compulsory
COMP339	SYSTEMS PROGRAMMING	(3,0)3	4	Compulsory	SENG308	SOFTWARE QUALITY ASSURANCE AND TESTING	(3,0)3	5	Compulsory
SENG305	SOFTWARE DESIGN AND ARCHITECTURE	(3,0)3	7	Compulsory	SENG312	HUMAN COMPUTER INTERACTION	(3,0)3	6	Compulsory
					TEXX1	TECHNICAL ELECTIVE	(3,0)3	5	Technical Elective
		17	30				18	30	
ECON413	ENGINEERING ECONOMICS	(3,0)3	5	Compulsory	ENGG434	ENGINEERING ETHICS	(3,0)3	5	Compulsory
BUSN461	STRATEGIC PLANNING AND MANAGEMENT	(3,0)3	5	Compulsory	SENG450	GRADUATION PROJECT II	(0,6)5	10	Compulsory
SENG360	SUMMER TRAINING	(0,0)0	2	Compulsory	TEXX4	TECHNICAL ELECTIVE	(3,0)3	5	Technical Elective
SENG407	SOFTWARE PROJECT MANAGEMENT	(3,0)3	5	Compulsory	TEXX5	TECHNICAL ELECTIVE	(3,0)3	5	Technical Elective
SENG451	GRADUATION PROJECT I	(0,3)1	3	Compulsory	TEXX6	TECHNICAL ELECTIVE	(3,0)3	5	Technical Elective
TEXX2	TECHNICAL ELECTIVE	(3,0)3	5	Technical Elective					
TEXX3	TECHNICAL ELECTIVE	(3,0)3	5	Technical Elective					
		16	30				15	30	

According to its website (https://www.eul.edu.tr/en/academic/graduate-programs/school-of-applied-sciences/management-information-systems/, accessed on 03. September 2022) the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Bachelor degree programme Management Information Systems:

Educational Objectives:

- E01: Be capable of practicing information technology (IT) and successfully participate in both national and international organisations within the field of IT in a professional manner.
- EO2: Participate successfully in research and development areas in national and international universities industry.
- EO3: Become entrepreneurs and/or acquire leadership skills (project management, team leadership, company directorship and/or management) in the areas of computing, software, information systems and the IT industry.
- EO4: Take part in the projects of various fields, working as part of a team or independently.

Learning Outcomes:

- PO1: Have effective verbal and written communication skills in the field of Information Technology (IT).
- PO2: Have the scientific foundations necessary for managing and maintaining information systems; in particular, an ability to apply knowledge of computing, logic and mathematics where necessary when solving problems.
- PO3: Have the ability to identify, analyse, make decisions, apply strategies and implement solutions in complex management related problems.
- PO4: Have the fundamental knowledge regarding technical concepts and practices in IT when working with key information systems, such as operating systems, database systems, communication systems and networks.
- PO5: Have an acute awareness of the need for continued professional development with a view to life-long learning; conduct research where necessary, apply modern techniques while following developments in the Informatics industry.
- PO6: Have an awareness of current-day problems, and an understanding of professional, ethical, legal, security and social issues.
- PO7: Be able to work and manage in interdisciplinary research and development projects as an individual and/or as a member of a team, and be equipped with the theoretical background to pursue graduate level studies.

The following **curriculum** is presented

MIS CURRICULUM (AFTER 2020-2021)									
COURSE CODE	COURSE NAME	CREDIT	ECTS	COURSE TYPE	COURSE CODE	COURSE NAME	CREDIT	ECTS	COURSE TYPE
COM100	INTRODUCTION TO COMPUTERS	(3,0)3	5	Compolsary	COM106 / ORT106	TURKISH / TÜRKÇE	(2,0)2	2	Compolsary
COM101	ENGLISH I	(3,0)3	3	Compolsary	COM108 / ORT108	HISTORY / TARİH	(2,0)2	2	Compolsary
COM104	PSYCHOLOGY	(3,0)3	6	Compolsary	COM110	ENGLISH II	(3,0)3	3	Compolsary
COM109	MATHEMATICS	(3,0)3	5	Compolsary	COM115	SOCIOLOGY	(3,0)3	7	Compolsary
COM112	ECONOMICS	(3,0)3	6	Compolsary	COM204	ETHICS IN PROFESSION	(3,0)3	8	Compolsary
SCI101	INTRODUCTION TO SOCIAL SCIENCES	(3,0)3	5	Compolsary	MIS152	INTRODUCTION TO INFORMATION SYSTEMS	(3,0)3	8	Compolsary
		18	30				16	30	
ACCT201	FINANCIAL ACCOUNTING I	(3,0)3	6	Compolsary	ACCT202	FINANCIAL ACCOUNTING II	(3,0)3	6	Compolsary
BUSN205	PRINCIPLES OF MANAGEMENT	(3,0)3	6	Compolsary	FEA102	PRINCIPLES OF LAW	(3,0)3	6	Compolsary
COM221	MATHEMATICS FOR SOCIAL AND APPLIED SCIENCES	(3,0)3	6	Compolsary	MIS214	PRINCIPLES OF OPERATING SYSTEMS	(3,0)3	4	Compolsary
COM223	MACROECONOMICS	(3,0)3	6	Compolsary	MIS251	PROGRAMMING FOR MANAGEMENT INFORMATION SYSTEMS	(3,0)3	3	Compolsary
MARK301	PRINCIPLES OF MARKETING	(3,0)3	6	Compolsary	SENG212	SOFTWARE REQUIREMENTS ANALYSIS AND SPECIFICATION	(3,0)3	5	Compolsary
STAT253	STATISTICS	(3,0)3	6	Compolsary					
		18	36				15	24	
BUSN303	PRODUCTION MANAGEMENT	(3,0)3	6	Compolsary	BUSN304	HUMAN RESOURCE MANAGEMENT	(3,0)3	6	Compolsary
MIS337	DATABASE MANAGEMENT SYSTEMS	(3,2)4	7	Compolsary	BUSN356	ENTREPRENEURSHIP	(3,0)3	6	Compolsary
TE - 1	TECHNICAL ELECTIVE - 1	(3,0)3	5	Elective	COM351	RESEARCH METHODS	(3,0)3	6	Compolsary
SENG305	SOFTWARE DESIGN AND ARCHITECTURE	(3,0)3	7	Compolsary	COMP342	COMPUTER NETWORKS	(3,0)3	5	Compolsary
TOUR302	PURCHASING AND COST CONTROL	(3,0)3	5	Compolsary	MIS306	HUMAN FACTORS IN COMPUTING	(3,0)3	7	Compolsary
		16	30				15	30	
BUSN461	STRATEGIC PLANNING AND MANAGEMENT	(3,0)3	5	Compolsary	FE - 2	FREE ELECTIVE - 2	(3,0)3	4	Free Elective
FE - 1	FREE ELECTIVE - 1	(3,0)3	4	Free Elective	MIS303	MANAGEMENT INFORMATION SYSTEMS	(3,0)3	5	Compolsary
MIS400	SUMMER TRAINING	(1,0)1	3	Compolsary	MIS412	INTERNET PROGRAMMING	(3,0)3	5	Compolsary
MIS410	GRADUATION PROJECT I	(1,0)1	3	Compolsary	MIS450	GRADUATION PROJECT II	(0,6)3	11	Compolsary
TE - 2	TECHNICAL ELECTIVE - 2	(3,0)3	5	Elective	TE - 4	TECHNICAL ELECTIVE - 4	(3,0)3	5	Elective
TE - 3	TECHNICAL ELECTIVE - 3	(3,0)3	5	Elective					
SENG407	SOFTWARE PROJECT MANAGEMENT	(3,0)3	5	Compolsary					
		17	30				15	30	