ASIIN Seal & European Label

Accreditation Report

Bachelor's Degree Programmes
Housing Architecture and Urban Development
Landscape Architecture

Provided by
Ain Shams University, Cairo

Version: 25th March 2025

Table of Content

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]
عمارة الإسكان والتنمية العمرانية	Housing Architecture and Urban Development	ASIIN, EUR-ACE® Label	/	03
عمارة تنسيق المواقع	Landscape Architecture	ASIIN, EUR-ACE® Label	/	03
Date of the contract: 21.06.2023 **Submission of the final version of the self-assessment report:** 21.07.2023 **Date of the onsite visit:** 06.-07.03.2024 **at:** ASU Campus, Cairo				
Expert panel: Prof. Dipl.-Ing. Cornelia Bott, Nürtingen-Geislingen University of Applied Sciences Prof. Dr. Lutz Beckmann, Jade University of Applied Sciences Dr.-Ing. Martin Rumberg, University of Kaiserslautern-Landau *The industry representative's participation got cancelled at short notice* Ahmed Abdelhady, student at Alexandria University and Military Technical College				
Representative of the ASIIN headquarter: Yanna Sumkötter				
Responsible decision-making committee: Accreditation Commission for Degree Programmes				
Criteria used:				

[1] ASIIN Seal for degree programmes; EUR-ACE® Label: European Label for Engineering Programmes
[2] TC: Technical Committee for the following subject areas: TC 03 - Civil Engineering, Geodesy and Architecture

European Standards and Guidelines as of May 15, 2015 ASIIN General Criteria, as of December 7, 2021 Subject-Specific Criteria of Technical Committee 03 – Civil Engineering, Geodesy and Architecture as of September 28, 2012	

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
Housing Architecture and Urban Development	B.Sc.	Affordable housing/Mixed-Use Development/ Urban Planning and Design	6	Full time	Yes, University of East London (UEL) or Mediterranean University of Reggio Calabria (UNIRC)	8 semesters	250 ECTS/144 CH	Annually / 2018
Landscape Architecture	B.Sc.	Sustainable landscape design/Urban design and planning	6	Full time	Yes, University of East London (UEL) or Mediterranean University of Reggio Calabria (UNIRC)	8 semesters	250 ECTS/144 CH	Annually / 2013

Ain Shams University (ASU) was founded in 1950, the third-oldest native public Egyptian university under the name of Ibrahim Pasha's University. Its site used to be a former royal palace, called the Zafarana Palace. When it was first established, ASU had a number of faculties and academic institutes, which were later developed into a university. The university's current academic structure includes 20 faculties, several institutes, centres and special units.

For the Bachelor's degree programme Housing Architecture and Urban Development the institution has presented the following profile in the self-assessment report:

"HAUD program is qualifying graduates with all necessary competences to understand the housing market and real estate development; graduates will gain knowledge in housing typology, provision, policies, finance, legislation, and management. It qualifies graduates to use digital technologies and software as design aiding tools to generate and analyses

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

spatial data, produce integrated architecture documents, and land mapping. The HAUD emphasizes the integration of social, economic, environmental, along with physical aspects to create safe, inclusive, healthy, and sustainable cities. It introduces graduates to contemporary trends and practices in housing industry and urban development schemes such as smart housing/cities. Graduates of the HAUD program can handle with different jobs in related fields to the housing and urban development sector ranging from architecture level to the urban design and planning level."

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

"Landscape Architecture program (LAAR) aims to prepare distinguished engineering graduates of Architects and Landscape Architects capable of keeping pace with the global perspective of sustainable landscape practices and technological development. LAAR prepares a diverse student body to become leaders within the field of architecture and landscape architecture. Students are instilled with the theoretical, technical and life skills necessary to address the complex and continually changing ecological, social and technological challenges associated with the design, conservation and management of architecture and landscapes. Educational emphasis is placed on developing creative and critical thinking skills, high moral character and ethical behaviour, exposure to various geographies and cultures, and an independence of mind and freedom of spirit."

C Expert 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:

- Self-Assessment Report
- Study plans of the two degree programmes
- Module descriptions of the two degree programmes
- Objective-module-matrices of the two degree programmes
- Webpage of both study programmes
- Discussions during the audit

Preliminary assessment and analysis of the experts:
The experts refer to the respective ASIIN Subject-Specific Criteria (SSC) of the Technical Committees 3 (Civil Engineering, Geodesy and Architecture)**,** the objective-module-matrices for the degree programmes, the matching learning objectives and the modules as a basis for judging whether the intended learning outcomes of the Bachelor's degree programmes Housing Architecture and Urban Development as well as Landscape Architecture correspond with the competences as outlined by the SSC. The descriptions of the qualification objectives are comprehensive and include the achieved competencies and possible career opportunities of the graduates.

The Ain Shams University (ASU) has described and published graduate attributes, programme educational aims and programme competencies for the degree programmes under review. While the educational aims and graduates attributes are developed based on the vision and mission of the university as well as the faculty and are rather general, the programme competences describe in great detail the competences the students should

[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.

acquire during their studies. The programme competences are subdivided into three categories: the “zero” level, the “A” level and the “D” level. The “zero level” category is supposed to accommodate a single general competence that expresses the basic and general competence any university graduate should be characterised with regardless of his/her major. While the “A level” category describes the specialty competences that any engineering graduate should acquire during his/her studies, the “D level” category includes the architectural engineering competencies with the specific subject of the degree programme. By means of being published on the website of the degree programmes, the educational aims, the graduate attributes and programme competences are easily accessible for students as well as other stakeholders. Furthermore, there are regular revision processes in place that take into account feedback by external and internal stakeholders. Minor curriculum adjustments are done every year whereas major revisions including consultations of stakeholders take place every five years.

The experts note that the relationship between the educational aims, the graduate attributes and programme competences have been established in a comprehensible and logical manner. The development of the programme competences of the two study programmes involves both internal and external stakeholders so that the curricula can be adapted and modified according to the needs of the industry and the graduates on a regular basis. For example, ASU regularly conducts surveys, through which the different stakeholders get the chance to assess the programmes and their main objectives and adapt them if necessary. Internal stakeholders include all of ASU members (students, teaching staff, and non-academic employees), while the external stakeholders include the industry, alumni, curricula from other universities, and society.

At the end of their studies, graduates of both degree programmes are able to identify, formulate, and solve complex engineering problems by applying engineering fundamentals, basic science and mathematics. Moreover, they have acquired understanding of how to develop and conduct appropriate experimentation and/or simulation, analyse and interpret data, assess and evaluate findings, and use statistical analyses and objective engineering judgment to draw conclusions. They are able to apply engineering design processes to produce cost-effective solutions that meet specified needs with consideration for global, cultural, social, economic, environmental, ethical and other aspects as appropriate to the discipline and within the principles and contexts of sustainable design and development. They are also capable of utilizing contemporary technologies, codes of practice and standards, quality guidelines, health and safety requirements, environmental issues and risk management principles.

With regard to the specialized competencies, the graduates of the Bachelor’s degree programme Housing Architecture and Urban Development know how to create aesthetically

pleasing and technically sound architectural designs ranging across different scale based on the most contemporary trends and smart systems and theories of architecture, urban and planning as well as how to produce designs that meet building users' requirements through understanding the relationship between people and buildings; and the need to relate indoor and outdoor to human needs, scale and environment. In addition, they are capable of preparing design project briefs and documents and analyse the context of the architecture in the construction industry, infrastructure including the architect's role in the processes of bidding, procurement of architectural services, and building production. Lastly, they can solve problems and creatively design housing schemes or urban contexts that demonstrate awareness and integration of information and processes in project work by considering their contexts (social, economic, political, institutional, / environmental and physical) technical installations, infrastructure and engineering problems associated with building designs with the underlying concepts and theories as well as coordinate and monitor the production of information and data from a variety of sources, including drawings, specifications, codes of practice, related to principals of architecture and Housing and urban development.

Therefore, graduates of this study programme are capable of working in several related fields to housing design and urban development ranging from architecture level to the urban design and planning level with special knowledge of real estate and land management. They can work as architects and urban planners in governmental bodies, such as, the Ministry of Housing Utilities and the Urban Development; International Agencies, such as UN-Habitat; and local companies and consultancies.

Graduates of the Bachelor's degree programme Landscape Architecture have fundamental understanding of how to create architectural, urban and landscape designs that satisfy both aesthetic and technical requirements, using adequate knowledge of history and theory, related fine arts, local culture and heritage, technologies and human sciences. They know how to integrate relationships of structure, energy systems, landscape materials, and construction elements into design process in different scales as well as to discuss, search and formulate informed opinions appropriate at specific context and circumstances affecting landscape architecture profession and practice. Moreover, they are capable of judging landscape architecture decisions considering balanced costs, benefits, safety, quality, reliability, and environmental impact and propose creative and innovative solutions for problems facing landscape architecture projects. Furthermore, they can professionally merge engineering knowledge and landscape architecture, understanding, and feedback to improve design, products and/or services and deal with sensitive spaces and locations using the required understanding for human needs and socio-economic dynamics.

Lastly, they know how to prepare design project briefs and documents and understand the context of the landscape architect in the construction industry, including the architect's role in the processes of bidding, procurement of architectural services and building production.

Therefore, graduates of this study programme can advise on, plan, design and oversee the creation, regeneration and development of external land areas such as gardens and recreational areas, as well as residential, industrial and commercial sites. However, they also have the mastery of architecture, the profession of designing buildings, communities, artificial constructions and environments, furnishings and decorations. In this sense, the graduates can carry out other related missions such as supervision of construction work, and the examination, restoration, or remodelling of existing sites/buildings. Landscape architects typically work across five main areas: landscape design, landscape management, landscape planning, landscape science and urban design. Alternative careers for landscape architects include Conceptual Landscape Developer, Landscape Planner, Greenway Initiator, Landscape Assessor, Landscape-Architect, Garden Designer, Landscape Contractor, Designer-Builder, Product Design/Manufacture, Public services and Tourism Planner. Typical employers of landscape architects include Architecture and urban planning consultancy, the construction industry, real-estate developers, local authorities, private practices, public bodies, water networks companies, roads companies.

Next to the professional skills, the students of the two study programmes are supposed to acquire personal and social skills such as critical and creative thinking, communication skills, adaptability, leadership skills and the capacity to work in (international) teams. In addition, they should be able to solve engineering problems through research and the application of different concepts and methods.

In the experts' opinion, the intended qualification profiles of the two degree programme under review are clear, plausible and allow students to take up an occupation, which corresponds to their qualification. They learn that the graduates of ASU are much sought after in the labour market. The industry representatives emphasize the high quality of the graduates of the programmes under review and students as well as graduates are satisfied with and well aware of their good job perspectives. The experts understand that the current construction sector is booming and the future development of building new urban communities and national mega projects in Egypt is thriving for graduates who are engaged with the Sustainable Development Goals (SDGs) standards and principles and have an integrated vision to tackle planning and design issues in the fields of the two study programmes.

In summary, the experts confirm that the Bachelor's degree programmes adequately reflect level 6 of the European Qualification Framework (EQF) respectively. The programme

competencies are consistent with the respective ASIIN Subject-Specific Criteria of the Technical Committee of Civil Engineering, Geodesy and Architecture as well as the EUR-ACE framework standards of engineering programmes. They aim at the acquisition of specific competences and are well-anchored, binding and easily accessible to all stakeholders.

Criterion 1.2 Name of the Degree Programme

Evidence:

- Diploma Supplements for both programmes
- Self-Assessment Report
- Discussions during the audit

Preliminary assessment and analysis of the experts:
The title of the degree programmes follow the rules for naming study programmes set by the Egyptian Ministry of Education. The experts hold the opinion that the English translation and the original Arabic name of the Bachelor's degree programmes correspond with the intended aims and learning outcomes as well as the main course language.

During the opening meeting with the representatives of the rector's office and the programme coordinators, the experts learn that ASU offers specialized as well as interdisciplinary programmes. In total, ASU offers 22 Bachelor's degree programmes (of which 11 are specialized and 11 are interdisciplinary) and 15 Master's programmes (of which 12 are specialized and 3 are interdisciplinary). The two Bachelor's programmes under review are interdisciplinary programmes, because the modules are offered by at least 2 collaborating departments and the curricula include mandatory double degree options.

Moreover, the experts inquire why the same final degree is awarded for both the Housing Architecture and Urban Development and the Landscape Architecture degree programmes (Bachelor of Science in Architecture Engineering) while the programme titles are either specialized in Housing Architecture and Urban Development or Landscape Architecture. From the programme coordinators they learn that by graduating from one of these programmes, students are awarded the title of architecture engineers by the responsible chamber. Moreover, their respective specialization in either landscape architecture or housing architecture will be written on their Diploma and Diploma Supplement as well as their Transcript of Records. The experts can understand these circumstances and appreciate that both programmes grant graduates access to the title of engineers and, linked to that, also to the chamber. They are convinced that it would provide graduates with good opportunities to secure a permanent professional future.

Criterion 1.3 Curriculum

Evidence:

- Self-Assessment Report
- Study plans of the two degree programmes
- Module descriptions of the two degree programmes
- Objective-module-matrices of the two degree programmes
- Bylaws of the Faculty of Engineering
- Webpage of both study programmes
- Partnership agreements
- Discussions during the audit

Preliminary assessment and analysis of the experts:
Structure and content

At ASU, each student has to undertake a one-year long basic study course (which is worth 60 ECTS) before beginning with their speciality, in this case Housing Architecture and Urban Development or Landscape Architecture. The basic study course is open to individuals passing their final secondary education examination with success and holding the Baccalaureate. It allows graduates to access one of the study fields offered by the university without competitive examination, as the transition is made based on continuous assessment.

The basic study course encompasses common subjects like Mathematics, Physics, Chemistry, Computer Sciences and Engineering Drawing. These subjects are taught for all students at ASU. According to the new bylaws 2023, students decide on which of the engineering study programmes they want to pursue before the first year, among them Housing Architecture and Urban Development as well as Landscape Architecture. Basic study courses are distributed among the years of study.

In the Self-Assessment Report and the curricula, ASU describes how the objectives and programme competences of the two degree programmes are to be achieved in the individual modules and thus explains the significance of each module for the programmes as a whole. The curricula are reviewed by the experts in order to identify whether the described programme competencies can be achieved by the available modules. Old study plans from 2018 (with a standard study duration of five years) as well as current study plans from 2023 (with a standard study duration of four years), course descriptions as well as matrices

matching the general programme competences (subdivided into three levels) and the module contents were provided for a detailed analysis. This report will be based on the current bylaws of 2023.

Both degree programmes are managed by the Faculty of Engineering. The degree programmes are designed for four years and offered as full-time study programmes. To complete the programmes students must acquire at least 250 ECTS credit points so that they receive the Bachelor of Architecture Engineering Diploma at the end of their four-year training programmes. Students can extend their study time if needed; the maximum time allowed for students to finish the programmes is eight years. At ASU, each semester is equivalent to 16 weeks, including 15 weeks of learning activities and one to two weeks of examination (mid-term and final exams).

In order to achieve the educational aims of the programmes, ASU has designed a number of modules that are supposed to build the students' personality, develop their skills, and increase their awareness of different topics. These modules are called *University Requirements*. The Faculty of Engineering has selected university requirement modules in the scope of 5 CH (7 ECTS) credit points to be offered within the two engineering programmes under review. These modules are shown in the study plans included in the annex of this report. The "Technical English Language" module is a pre-requisite for all *Faculty requirements* courses. A placement test in English Language will be conducted for some students who are admitted to the Faculty of Engineering. If the student passes this test, then he or she will be exempted from taking the corresponding module.

In addition, these modules are complemented by modules offered specifically for the Faculty of Engineering, the so-called *Faculty Requirement* courses. These modules are divided into Basic Science Courses and Basic Engineering Courses and cover a scope of 34 CH (56 ECTS) credit points in both degree programmes. These modules are shown in the study plans included in the annex of this report. The "Basic Mathematics" module is a pre-requisite for all *Faculty requirements* courses. A placement test in Mathematics will be conducted for all admitted students except for students holding specific high school degrees which are determined by the Faculty Council. If a student passes this test, then he or she will be exempted from taking this module.

Apart from *University Requirement* and *Faculty Requirement* modules, the Housing Architecture and Urban Development degree programme covers a set of mandatory topics directly related to the discipline: modelling of the built environment, community-centered design methods, principles of residential urban spaces and landscape, structural analysis for architectural engineering, surveying and site mobility, concrete and steel structures, technical installations, modelling of the built environment, history and theory of urbanism, urban systems, architecture profession and legislations, programming for architects, city

development strategies, building information modelling, land management and land subdivision, geoinformatics as well as several design studios and working designs. Moreover, seven elective modules (worth 17 CH) can be chosen by the students in accordance with their areas of interest and after consultation with their academic advisor.

As for the Landscape Architecture degree programme, the programme specific modules focus on different topics with regard to landscape construction, modelling of the built environment, principles of urban design and landscape, principles of sustainable architecture, control of thermal environment, urban ecology and environmental studies, steel structures for architectural engineering, housing studies, history and theory of urbanism, urban informatics, infrastructure planning and landscape irrigation, horticulture and garden design, outdoor lighting and effects, soundscape and aural architecture as well as several urban design studios and landscape working designs. Additionally, four elective modules (worth 12 CH) can be chosen by the students in accordance with their areas of interest and after consultation with their academic advisor.

In the self-assessment report, ASU states that it considers practical training a fundamental basis for engineering students to constitute the strength of the qualification granted by the diploma. As such, the study programmes under review currently entail four different kinds of practical trainings. First, practical work is carried out in the studios. Here, students put into practice the theoretical knowledge they have received during their courses. Second, students undertake design projects. Here, students develop and research a theme relating to a subject of their field of study and capture the findings in a report and/or a presentation. Third, students have to participate in a mandatory field training that has eight weeks standard duration, in order to gain an understanding of the nature of working in an industrial facility or office of their chosen area. The field training is supposed to be done in two consecutive summer vacations starting from level 2, but can also be distributed over the studies according to preference. Finally, the graduation research project enables students to carry out practical work associated with this project. Here, they must apply all the theoretical and practical knowledge they have received during their years of study. The graduation research project can be completed at a research laboratory or a partner university. Students can also individualize their qualifications profile by participating in student clubs or associations, as well as their individual projects during the practical workshops of the study programmes.

The practical training is valued by the students as this allows them to apply the skills they learned in the programme in a real working environment. The students point out that the university is very supportive in finding placements for the field training and always encourages them to gain as much practical experience as possible. Moreover, the faculty portal

provides helpful information about ASU's partners as well as internship reports from former students. The experts are also generally satisfied with the practical aspects of the programmes as this can additionally help the students to specialize in a particular field of interest, although they realize that ASU does not award any credits for this compulsory part of the curricula (see criterion 1.5).

During the audit discussions, the university proves that they have established useful guidelines for the field training and every student has one advisor at the company and one at the university to ensure that the work contributes to achieving the programme's learning outcomes. The assessment methods to evaluate this phase are comprehensive and include a written report and a presentation of their results in front of a jury. The evaluation takes into account the aspects work plan, discipline, teamwork, programme implementation, and activity report.

With regard to the programme-specific learning objectives and curricula, the expert group notes that the two Bachelor's degree programmes to be accredited cover the eight thematic blocks of the EUR-ACE framework standards for engineering degree programmes. These include 'Investigations', 'Making Judgements', 'Communication and Team-working' and 'Lifelong Learning'. The expert group also considers the subject block 'Knowledge and understanding' to be fulfilled, as the mathematical and scientific knowledge taught in the degree programmes is considered sufficient to be able to work on appropriate engineering tasks with regard to 'Engineering Analysis', 'Engineering Design' and 'Engineering Practice'.

Moreover, the experts notice that at the beginning of the Landscape Architecture studies (Level A), architecture seems to be the focus. They ask ASU why in the course of the programme there are only twelve modules reserved for landscape architecture to provide a deeper insight in the specialization. The programme coordinators explain that in 2012 they investigated the market needs and consulted several experts from the industry and design offices. Through this survey, they found out that, while there were a sufficient number of architects in Egypt, the market had a staff shortage in the field of landscape architecture. By introducing the Landscape Architecture degree programme in 2013, ASU aspires to be the first Higher Education Institution in Egypt to introduce that specialization on a Bachelor's level to stakeholders. Furthermore, the programme coordinators add that the Egyptian labour market demands graduates "with an engineering mind", i.e. problem-solving mindset. The study programme is therefore aimed at creating architecture engineers that have a broad range of knowledge and the necessary tools and soft skills to become experts in architecture and further specialize in landscape architecture. The alumni and industry partners agree that the current market demands for graduates that ASU is producing and that the initial focus on architecture is necessary as students are required to have adequate knowledge about detailed engineering drawing, the use of new future-oriented materials

and the use of the circular construction methods as well as the economic viability of construction as a prerequisite for urban planning and landscape architecture. They also point out that ASU is always open to feedback from industry partners and alumni regarding the focus of the curriculum, as well as open to introducing new aspects of landscape architecture or updating the modules based on current developments in the field. This is noted positively by the experts who suggest to keep on improving the curriculum by valuing the cooperation with the industry.

Furthermore, the experts ask whether topics about ecological and biodiverse structures within the city are taught in the Landscape Architecture degree programme. From the programme coordinators, the experts have gained the impression that lectures by experts, including those from abroad, deal with the sustainable topic, and present current best practice projects. However, in terms of the environmental justice and complexity of the topic, this is not sufficient to anchor the urban performance of the natural balance in individual construction projects. The experts point to the fact that when looking at the plans that ASU displayed during the audit discussions, the designs seem to be the focus of the projects. While the projects do include architecture, environment and landscape, the plans should combine and point out the ecological systems (especially the efficiency of natural balance) and the design more. Therefore, the experts recommend that more ecological systems and environmental influences be taught as basic principles, as these influence the development of residential areas, neighbourhoods and urban developments. This applies in particular with regard to the university's mission statement, which already includes the 17 Sustainable Development Goals.

Beyond that, the experts notice that especially the level D of the Housing Architecture and Urban Development degree programme includes a high number of studios and modules that deal with architecture, housing, real-estate development and urban design, whereas typical contents of urban planning and especially urban development, such as urban sociology, transport/mobility, spatial analysis, are represented rather marginally. From the programme coordinators, the experts learn that compared to the Bachelor’s degree programme in Architecture Engineering that offers three specializations in urban planning, urban design and architecture, the Housing Architecture and Urban Development degree programme covers the double amount of credits that deal with urban development. Among these, there are studio modules as well as the module about planning and urban resources where students visit a site and collect data that they have to analyse. There are also elective courses that cover the field of urban development. The experts can understand the argumentation and see this as appropriate.

In addition, similar to the Landscape Architecture plans, when looking at the Housing Architecture and Urban Development plans that ASU displayed during the audit discussions, the experts notice that they focus on the finished design. However, the experts think that it would be useful to also include floor plans as well as organisation of different housing types into the plans, because that is of influence on the location of e.g. entrances and explains e.g. the choice of the cardinal directions. Moreover, in future, society's housing needs will have to adapt to smaller, more attractive flats and other types of architecture that offer a sense of community and sharing offers. Therefore, they recommend to include contents of housing theory and current and future building organisation systems in the curriculum.

With regard to both programmes, the experts learn that in Egypt, the construction of a building is mainly planned and realised by civil engineers. In the Housing Architecture and Urban Development degree programme, there are three main modules that deal with construction, especially in the first and the two last semesters (for example the module “conventional construction techniques”), whereas in the Landscape Architecture degree programme, students mainly learn about designed overviews of big landscapes that look more like architectural drawings than landscape sketches. Therefore, the experts think that it would be useful to strengthen the student’s understanding of how construction works, for instance by including suitable and selected construction drawings into the design results of the projects (conceptual sketches and exemplary construction details, scale 1:50 to 1:5). Accordingly, they recommend to include more construction fundamentals in both curricula.

Apart from that, the experts appreciate that both programmes include the module “sustainable urban mobility” that is delivered by an industry expert. However, development opportunities for environmentally conscious mobility services are needed as too heavy traffic and mobility problems seem to be one of the biggest challenges in Egypt urban agglomerations to be solved (public transport, bicycle lanes e.g.). Therefore, it is recommended to consider including an additional mobility part in the studio courses.

Finally, the experts discuss with the programme coordinators and students of the degree programmes what offers exist in order to strengthen students’ and lecturers’ English skills. The programme coordinators explain that in both programmes under review, a placement test in English Language is conducted for some admitted students to the Faculty of Engineering. A placement test in English will be organized for all accepted students except students with an Egyptian High School Diploma (Thanaweya Amma), IGCSE Certificate, American Diploma, STEM Schools or Nile Schools. If the student passes this test, then she or he will be exempted from taking the “Technical English Language” module which is a pre-requisite for all Faculty requirements courses. The Faculty Council can ask the students who

fail this tests to take zero credit courses in order to have equal opportunity with other students. Moreover, as both degree programmes under review are interdisciplinary programmes that include a mandatory double degree option, the official language of instruction is English. Accordingly, textbooks, assignments, and examinations are in English.

In summary, the experts are convinced by the curricula of the two study programmes that have been developed with the support of partners from the industry and thus allows students a promising education in the field of Housing Architecture and Landscape Architecture. They conclude that the curricula enable students – besides the mentioned small restrictions – to achieve the intended learning outcomes of the programmes and that they are in line with the SSC of the Technical Committee Civil Engineering, Geodesy and Architecture as well as the EUR-ACE framework standards of engineering programmes.

Periodic Curriculum Review

The curricula of the degree programmes under review are designed to comply with the educational aims and programme competences and they are subject to constant revision processes (see also chapter 1.1 and chapter 5). As such, the curricula are reviewed regularly and commented on by students and teachers as well as by external stakeholders such as alumni or partners from the private sector. Regular changes are made to ensure that the curricula are up to modern standards. Besides the educational aims and programme competences defined by ASU itself, the curricula also take into account recommendations from industry, international standards of higher education and curricula from other universities worldwide.

International mobility

The Self-Assessment report as well as the discussions make it clear that international recognition is one of ASU's primary goals for the next years. The experts point out that international mobility, with regard to lecturers as well as students, is a key factor in these efforts.

The experts learn that the university already provides various mobility opportunities for students. These include semesters abroad, short programmes, internships, and international conferences. To foster these, there are cooperation agreements with 53 partner institutions worldwide, for instance in Germany. Moreover, both programmes offer mandatory double degree options at one of their partner universities (either University of East London (UEL), United Kingdom or Mediterranean University of Reggio Calabria (UNIRC), Italy). The students who are still studying in the curriculum of 2018 (which has a total duration of five years) and choose to pursue the double degree option with the University of East London spend the first three years studying ASU modules and two more years studying UEL modules while staying in Cairo as this option does not include any mandatory mobility.

Students who decide to still spend the second part of their studies in London are granted a 10% reduction in the UK tuition fees. The UEL modules are delivered by UEL lecturers, either online or on-site as they often visit ASU campus. At the end of their studies, students receive a double Bachelor's degree. As the experts learn during the audit discussions, most students of both Housing Architecture and Urban Development and Landscape Architecture choose this option. A small percentage of students chooses to pursue the double degree option with the Mediterranean University of Reggio Calabria. In this case, students who are studying in the curriculum of 2018 (which has a total duration of five years) spend the first three years of their studies at ASU campus and the two last years at UNIRC campus as this option does include mandatory mobility. At the end of their studies, students receive a Bachelor's degree in Egypt and a Master's degree in Italy. In both cases, there is a cooperation agreement between ASU and the respective partner university that regulates the type and scope of the cooperation. The two degree programmes also have adequate resources at all locations. This is evident from the submitted course handbooks, the programme specifications and the laboratory overview. The experts welcome the compulsory double degree and the fact that students can choose between two options. They note that the modules from the second part of the programmes are taught by lecturers from the partner universities, although the option with UEL does not include a compulsory stay abroad. However, as the curricula of both degree programmes were updated in 2023 and now only comprise four years, it is not yet entirely clear to the experts whether the double degree models will continue to comprise 3+2 years or will be adapted to 3+1 or 2+2 years. The expert group would therefore like a brief clarification of the structure of the double degree agreements at this point.

Partly due to the COVID-19 pandemic, the number of students participating in mobility programmes between 2020 and 2021 was relatively low, but is increasing again after the pandemic. A Student Affairs Office has been established in order to coordinate ASU's efforts and to support the students in the planning and administration of international mobility. Moreover, the university provides scholarships for international mobility programmes and manages various external scholarships sponsored by the Egyptian government.

Qualifications obtained at other universities in Egypt or abroad are recognized in line with the courses at ASU, provided that the total credit hours of these courses do not exceed 68 CH. Before a stay abroad, the university concludes a learning agreement with the respective student to ensure that the courses taken are relevant to the study programmes and can thus be recognized.

In their discussion with the experts, the students confirm the existence of opportunities for international academic mobility. The experts appreciate the efforts to promote international mobility and encourage ASU to continue in this direction.

Criterion 1.4 Admission Requirements

Evidence:

- Self-Assessment Report
- Admission regulations
- Discussions during the audit

Preliminary assessment and analysis of the experts:

As the two programmes under review are interdisciplinary programmes (see chapter 1.2 for more details), students who enrol in one of these programmes have to pay separate tuition fees, based on the number of credit hours registered by the student for each semester and specified by the Faculty Council every year based on the announced inflation rate. The Faculty Council has to announce these fees before the start of each academic year. In contrast, education in specialized programmes is offered for free (scholarship from the government) based on the Egyptian Constitution. The top thirty students in the Egyptian High School Diploma (Thanaweya Amma – Mathematics Section) are fully exempted from paying any tuition fees if they join the interdisciplinary programmes. To maintain this exemption in the following semesters, the student has to maintain a minimum GPA of 3.3 in every semester. The Faculty Council can award extra scholarships for students who have achieved a minimum GPA, or students with limited financial abilities, according to the rules announced by the Council every year.

Students who are enrolled in the specialized programmes can join the interdisciplinary programmes provided that they achieve a minimum GPA of 3.85 without paying the extra fees associated with the interdisciplinary programs. They can keep this scholarship as long as they maintain the minimum GPA of 3.85. Students in turn enrolled in the interdisciplinary programmes can join the specialized programmes provided that they achieve a minimum GPA of 3.7. The programme administration board can lower this limit based on the available capacity of the specialized programmes.

As the language of instruction is English and mathematics are the basis of engineering sciences, the student candidates' English and mathematics proficiency is tested before enrolment. The Faculty Council can ask the students who fail these tests to take zero credit courses in order to have equal opportunity with other students. A placement test in mathematics will be organized for all accepted students except students with an Egyptian High School Diploma (Thanaweya Amma), IGCSE Certificate, STEM Schools or Nile Schools. A placement test in English will be organized for all accepted students except students with

an Egyptian High School Diploma (Thanaweya Amma), IGCSE Certificate, American Diploma, STEM Schools or Nile Schools.

The expert panel learns that the Faculty of Engineering accepts equivalent certificates from foreign or Arab Countries with the same conditions. Students report that the admission rules are reasonable, transparent and available to them. Agreeing with the students, the expert panel concludes that the admission regulations are clearly stated and easily accessible to the stakeholders (website, student handbook). Through combining English language requirements with the proof of subject-specific qualifications, the admission rules from the expert's perspective contribute to the selection of students most qualified for the Bachelor's programmes.

Criterion 1.5 Workload and Credits

Evidence:

- Self-Assessment Report
- Study plans of the two degree programmes
- Module descriptions of the two degree programmes
- Discussions during the audit

Preliminary assessment and analysis of the experts:
The Bachelor's degree programmes under review use a credit point system called Egyptian Credit Hour System (CH), which is regulated as follows:

- One Hour weekly lecture for a semester of 15 weeks.
- Two Hours weekly tutorial for a semester of 15 weeks.
- Three Hours weekly Laboratory work for a semester of 15 weeks.

In comparison to the ECTS credit system, wherein 1 ECTS equals 25-30 hours of students' workload, it is determined that 1 CH is awarded for 50 minutes actual teaching and 10 minutes break per week. One semester usually consists of 15 class meetings. The students' workload (contact hours and self-studies) is measured in Egyptian Credit Hours (CH), and converted to the European Credit Transfer System (ECTS). Regarding the conversion from CH to ECTS, ASU explains that 1 CH equals 1.7 ECTS, based on 25 hours per ECTS. According to the legal requirements, the actual number is 144 CH (equivalent to approx. 250 ECTS) for the two Bachelor's degree programmes under review. The experts acknowledge that a credit point system based on the students' workload is in place.

The workload is spread evenly over the semesters as every semester comprises 17 CH. The workload of the last semester is markedly reduced to give the students enough time for their graduation project as well as to already start looking for a job. Moreover, the effective number of CH that students can take depends on their achievements in the previous semester. In the degree programmes under review, if their GPA is less than 2.0, they can take up to 14 CH (or 5 courses), between 2.0 and 3.0 up to 18 CH (or 6 courses) and equal or above 3.0 up to 21 CH (or 7 courses) in one semester. As soon as a student completes 20 % of the programme requirements, he or she will be transferred from one level to the next (Level 0 to Level 3).

The experts confirm that the workload in hours is indicated in the module descriptions and the distinction between classroom work and self-studies is made transparent and is in line with the credits awarded. Feedback concerning the workload is collected through the course evaluation survey at the end of each semester and adaptions are made if necessary. During the on-site visit, the students confirm that the workload is generally well reflected by the number of credits awarded and more or less equally divided through the study years and programmes. They also emphasize that they have enough time for repetition and self-study and also work on the side in order to finance their studies. As the statistical data provided by ASU shows, almost all students complete the degree programmes as there have only been 8 % of the students who dropped out of the degree programmes (old curricula, according to bylaws of 2018) between 2018 and 2023. Additionally, even though the Housing Architecture and Urban Development degree programme only started in 2018 and therefore hasn't any graduates yet, the experts see that the average length of study was between 4,5 and 5 years between 2018 and 2023 in the programmes under review (curricula used to have 5 years standard duration in bylaws of 2018). The programme coordinators explain that this is due to the fact that students frequently transition from other educational tracks into the programmes under review. The data verifies that the degree programmes can be completed in the expected period. The experts consider the workload to be overall manageable and transparent.

However, while looking at the provided study plans, the experts notice that there is a compulsory module in both programmes, for which no credits are awarded. This concerns the field training (see chapter 1.3 for more details). From the programme coordinators, the experts learn that the Supreme Council of Universities (SCU) related to undergraduate engineering programmes acquired to include a zero credit field training of at least six weeks in the study plans of engineering programmes. Accordingly, and to increase the interrelation with the industry, the new curricula from 2023 include some modules that have industry-based blocks. These blocks are dedicated to integration with the industry through de-

fining a real case/problem, working on-site, giving insights from real businesses and supporting in evaluation. For Housing Architecture and Urban Development, these modules are for instance “Placemaking and Place Identity”, “Selected Topics in Urban Planning and Development” as well as several design studios and working design modules. For Landscape Architecture, industry blocks are included in modules like for instance “Principles of Urban Design and Landscape”, “Horticulture and Garden Design” as well as several design studios. The experts acknowledge that this is a national regulation and all Egyptian students have to take the field training and by government regulation, no credit hours can be awarded form them. However, since all mandatory parts of the degree programmes need to be awarded with ECTS points according to ASIIN criteria, the experts have to issue a formal requirement according to which it must be ensured that credits are awarded to all compulsory (practical) components of the curricula. ASU has to determine the students’ workload for these courses and award ECTS points accordingly.

Criterion 1.6 Didactic and Teaching Methodology

Evidence:

- Self-Assessment Report
- Study plans of the two degree programmes
- Module descriptions of the two degree programmes
- Discussions during the audit

Preliminary assessment and analysis of the experts:

As ASU explains in the Self-Assessment Report, various student-centered learning methods are utilized in the two degree programmes under review. Through the Egyptian regulations on credit points an adequate balance between face-to-face activities and independent learning is already ensured for all courses, except for field training (see chapter 1.5). Besides the regular lectures, methods such as tutorials, laboratory work, projects, field visits etc. are used. Lectures are the key method for introducing new material. They are presented to the whole class and are formal in delivery. Tutorial sessions allow students to meet with their lecturers and industry experts in small groups and focus on the practical application of their studies through problem-based classes and project work. Laboratory classes are an additional educational component of a course in which the students can apply what they learned in lectures by using the lab's available facilities, which are supposed to simulate the industrial field. Laboratory sections have smaller class sizes than lectures. In each laboratory there is a technician and the respective lecturer. Projects are intended activities with specific goals and outcomes that are used in some courses to improve participant learning and development. They are a collaborative process, frequently involving

one or more teaching staff with students divided into small groups. On average, the students spend 46 to 48 % of their time on lectures, whereas 35 to 41 % are used for tutorials and 10 to 20 % for laboratory work. The students confirm that these methods are actually in use and that they are satisfied with the variety of teaching methods, which support them in achieving the learning outcomes.

Most of the teaching is on campus whereas a small range of modules are held online. ASU wants to encourage the students to gain knowledge from different scientific areas and to introduce them to research activities. Teaching and learning is supported by a broad range of media, both traditional (books, papers) and online (videos, presentations etc.). The experts are particularly impressed by the university's online learning management system (LMS) which supports teachers and students in communicating and disseminating learning material and other helpful documents as for instance sample exam questions. Moreover, the lecturers monitor student attendance, evaluate assignments and quizzes and upload grades through the LMS page.

The experts consider the teaching methodology employed in the two degree programmes to be diverse, interactive and to show a healthy mixture between traditional and modern/alternative methods. They are well adapted to the aims and conditions of the individual courses and suitable to support the students in achieving the intended learning outcomes.

Final assessment of the experts after the comment of the Higher Education Institution regarding criterion 1:

Criterion 1.3:

The experts asked for a brief clarification of the structure of the double degree agreements. In its response statement, ASU Cairo states that students studying in the curriculum of 2018 spend one preparatory year studying basic engineering courses of ASU and the following 4 years studying both UEL modules and other ASU required courses. The courses are mapped according to the assigned learning outcomes and assessment methods for the module. On the other hand, according to the bylaws 2023, the UEL modules start from the beginning of the first year. The UEL modules are delivered by ASU lecturers on campus. A validation process from UEL is required by Link Tutor and External Reviewer before the start of the semester, as they revise course assessment specifications (CAS) including major tasks and final exams for UEL modules. The following table describes the levels equivalence between ASU and UEL through Bylaws 2018 and 2023:

Bylaws 2018	
ASU	UEL
Freshman	--
Sophomore	Foundation
Junior	4
Senior I	5
Senior II	6

Levels

Bylaws 2023	
ASU	UEL
Freshman	Foundation
Sophomore	4
Junior	5
Senior	6

For the UEL degree programme, all modules are taught by ASU lecturers, because students spent their studies in ASU only with no obligation of mobility. This applies for both bylaws 2018 and 2023. In bylaws 2023 the UEL modules start from the beginning of the first year. For the Mediterranean University of Reggio Calabria degree programme, the arrangements for adapting changes in bylaws are still under discussion and negotiation. The experts appreciate the explanations provided and understand the structure of the UEL programme. However, as the exact structure and the corresponding adaptation of the bylaws of the Mediterranean University of Reggio Calabria degree programme are still under discussion, the experts point out that the university must submit the final documents and information for this double degree option. Also the regulations that students will have to follow until the arrangements have been finalised should be pointed out by the university.

Apart from that, the experts suggest to specify the wording of recommendation E 1 to "It is recommended that more essential basics of construction (e.g. building construction and building physics, also with regard to sustainability) be included in the curricula." The same applied to recommendation E 3: "It is recommended that ecological systems and environmental influences be increasingly taught as basic principles for the various scales of urban development, as these have decisive influence on the quality of life in residential areas, neighbourhoods and cities." The recommendations E1 – E3 apply in particular with regard to the university's mission statement, which already includes the 17 Sustainable Development Goals.

Criterion 1.5:

In its response statement, ASU Cairo explains that by the time they applied for ASIIN accreditation, the first class of Housing Architecture and Urban Development students was about to graduate. The first graduation class was in July 2023, and now the second graduation class is set to graduate in July 2024. ASU Cairo submits samples for the final submissions for both classes together with its response statement. The experts appreciate this clarification and consider the final submission to be appropriate.

With regard to the requirement to award credits to all compulsory (practical) components of the curricula, ASU Cairo explains that students must perform Field Training for 12 weeks

as per bylaws 2018 (8 weeks for students enrolled under bylaws 2023) in an industrial or service facility related to the study programme and must be under the full supervision of the faculty. The specific student working load (SWL) is equivalent to 12 ECTS (or 8 ECTS for students enrolled under bylaws 2023) and is mentioned in the module descriptions. The training is considered a pass/fail course and therefore is not awarded with local credits (CH). This issue is related to the Faculty regulations and applied for other three modules as well ("Societal issues", "Basic English" and "Basic Mathematics"). Since all mandatory parts of the degree programmes need to be awarded with credits (ECTS as well as local credits) according to ASIIN criteria, the experts adhere to the formal requirement.

2. Exams: System, Concept and Organisation

Criterion 2 Exams: System, Concept and Organisation

Evidence:

- Self-Assessment Report
- Module descriptions for the two degree programmes
- Examination regulations
- Bylaws of the Faculty of Engineering
- Samples of exams, projects and theses
- Discussions during the audit

Preliminary assessment and analysis of the experts:
At ASU, assessment is conducted according to the regulations defined in the examination regulations and the bylaws of the faculty. The Faculty of Engineering has adopted the concept of multi-component assessments to measure the achievement of the learning outcomes. Modules usually comprise assignments/course work (presentations or oral tests, practical tests), small quizzes a mid-term examination and a final examination stretching over the whole semester to ensure a continuous assessment of learning. This is transparently communicated in the module descriptions, which also contain detailed information about the weight of each examination component.

The final grade of each module is calculated based on the score of these individual kinds of assessment. The total grade of assignments/course work should not account for more than 25% of the total course grade if quizzes, mid-term, and final term exams exist. Quizzes are conducted before the mid-term and the final exam, according to the course requirements.

The total grades of the quizzes should not account for more than 10% of the total course grade, if course work, mid-term, and final term exams exist. Each mid-term exam should not account for more than 25% of the total course grade, whereas final exams are to be conducted during the last two weeks of every semester. The grade of each final exam shouldn't account for more than 40% of the total course grade.
The exact formula is given in the module handbook. At the first meeting of a course, the students are informed about what exactly is required to pass the module and about how the final grade is determined through the teaching and learning plan. ASU uses a grading system with the grades A+, A, A-, B+, B, B-, C+, C, C-, D+, D and F, where a D (equivalent to a Grade Point of 1.0) is necessary to pass a module.

Based on the academic regulation, to be eligible to take the final exam students must attend at least 75 % of the total course sessions. Students who have obstacles due to illness or other reasons and are not able to fulfil 75% of the total course sessions need to inform the academic supervisor and related lecturers.

Based on the university regulation, students must retake the whole course if they fail. The reason, why there are no re-sits of the final exam is that the final grade depends on the assessment of the learning activities that will be carried out continuously through the semester and not only on the final exam. Students who fail a course must attend the course again in the next semesters. The number of repetitions is unlimited. Students who have passed a course and want to improve the score, may also take the course again. However, if a student's GPA is below 2.0 for more than six successive semesters, he or she gets expelled. The students confirm that the regulations in place work well and are duly regulated. The experts appreciate that corresponding rules are in place.

Moreover, given the relatively high number of examinations per module and per semester, the experts explicitly approached the students to understand how they deal with the overall load of examinations. The students confirm that the examinations are generally well distributed over the semester and that they are used to a high examination load, which nevertheless appears manageable for them. Further, they perceive the examinations as an appropriate feedback mechanism for their study progress. As examinations include different examination methods (such as written, oral, and practical examinations), this examination approach ensures in the eyes of the experts that the academic performance of the students is assessed in different ways and in a comprehensive manner. Further, the expert panel welcomes the continuous assessment methods, because it at the same time aims at assessing different levels of competences. Overall, the faculty convincingly demonstrates that the examinations are structured adequately to cover the intended learning outcomes and provide students with continuous feedback on their learning progress.

In their final year of studies, students have to prepare a graduation project demonstrating knowledge, skills and competences gained in the course of the preceding semesters. From the information in the Self-Assessment Report and in the audit discussions, the experts gain the impression that the graduation projects are thoroughly planned major academic works conducted in distinct stages from the first proposal to the final report. The students must earn at least 130 CH to register for the graduation project. Prior to the actual research work, the students are required to write a research proposal and present it in a seminar attended by lecturers and other students who form a research group. The research proposal has to be accepted by the Dean and the supervisor committee who will then appoint the research supervisors. Usually, there are two research supervisors for each student to ensure that the work contributes to achieving the programme's learning outcomes. One will act as the principal supervisor and the other as co-supervisor. After completing the work on the thesis, the student has to present and defend the results in front of a graduation jury including lecturers and industry experts. The experts discuss with the programme coordinators, the members of the teaching staff, and the students about the process of finding a suitable topic for the final project. There are two possibilities: either students can propose their own ideas or they can ask their academic advisor or other teachers for suggestions.
During the on-site visit, the university proves that they have established useful guidelines for the final project.

During the onsite-visit, the experts were provided with a selection of exams and final projects to check. They confirm that these represent an adequate level of knowledge as required by the EQF level 6 for both Bachelor's degree programmes. Overall, the expert panel confirms that the (graduation) projects and examinations were of adequate standard and consider them as proof of the achievement of the study objectives at the level aimed for.

Final assessment of the experts after the comment of the Higher Education Institution regarding criterion 2:

As ASU Cairo did not issue any response statement with regard to this criterion, the experts adhere to their initial assessment.

3. Resources

Criterion 3.1 Staff and Staff Development

Evidence:

- Self-Assessment Report

- Staff handbook
- Cooperation agreements
- Discussions during the audit

Preliminary assessment and analysis of the experts:
In the Self-Assessment Report as well as the staff handbook, the university presents data about the number and overall qualification of the teaching staff for the two Bachelor's degree programmes under review. ASU's teaching staff are categorised as professors, associate professors, lecturers and teaching assistants. The academic position of each staff member is based on research activities, publications, academic education, supervision of students, and other supporting activities. All full-time teaching staff members are expected to be involved in teaching/advising, research, and services that are beneficial to stakeholders. However, the workload can be distributed differently between the three areas from teacher to teacher, depending on the academic position. The main difference of tasks and responsibilities based on academic staff position lies on the proportion of teaching and research activities. The higher the academic staff position is, the greater is the proportion of research activities, but the lower is the proportion of teaching activities. The latter may become professors once they have earned a certain amount of credits with regard to their academic work.

In total, the staff is composed as follows:

Table 14 Academic Staff and Teaching Assistants

PhD				Teaching Assistants	Grand Total
Prof.	Assoc. Prof.	Lecturer	Total		
9	9	15	33	36	69

* This table does not contain the staff responsible for Basic Engineering Sciences Courses(Mathematics, Physics, Mechanics ...) nor the staff responsible for University Requirements Courses.

Each year a selection of graduates with the best GPA are offered teaching assistant positions at the faculty. Teaching assistants are expected to pursue their academic career and progress to professors. Members of the core faculty also perform administrative tasks/oversee departments and participate in the educational management. They act as supervisors to the students and provide personalized follow-up to the students. Currently, the Housing Architecture and Urban Development degree programme has a student-staff ratio of 1:9, whereas the ratio is 1:12 in the Landscape Architecture degree programme.

During the discussions, the experts learn that ASU has defined an adequate recruiting process for teaching staff and that all policies and procedures for the appointment of faculty

members are subject to the law governing universities. The law No. 49-72 and its amendments states that each public university must devise a 5-year plan for recruitment in advance, where the number of required teaching assistants to be recruited are identified for each year. During the audit discussions the teaching staff indicate that they are satisfied with the working relationship with ASU. The experts also notice that the staff members, especially the core faculty, are very motivated and convinced of the offered study programmes.

With regard to staff development, ASU encourages the training of its academic staff to improve their didactic abilities and teaching methods. As stated in the Self-Assessment Report, academic staff regularly undergo training in Pedagogy, Teaching and Research Methodologies, Leadership, and Quality Assurance. These training programmes are offered on the university level [by the Teaching and Development Center (TDC) and the Quality Assurance Center (QAC] as well as on the faculty level [by the Teaching Support and Development Center (TSDC)]. TSDC created a YouTube channel for publishing tips and tricks concerning enhancement of Engineering Education, Sustainable Development Goals and Engineering, and is regularly hosting events in that regard. Moreover, at the end of each semester, the teaching staff of the degree programmes under review hold a meeting to discuss the curricula as well as the different units' training needs. The department plans year-round training courses and workshops based on feedback from academic and non-academic units. Staff members are also trained occasionally to ensure they stay updated with the latest technologies and methodologies when it comes to teaching. Several teaching staff members have received such training by their employer (in case of industry partners) or at other universities.

All graduation research projects include active research in the housing Architecture or Landscape Architecture field. Working with partner institutions in several countries (for example in the UK or Italy) by co-supervising graduation research projects has also led to new research topics. Teachers involved in a staff exchange programme are generally assigned to a partner university abroad that has a MoU with ASU. Additionally, the university recently created an "iHub" that offers students and lecturers the opportunity to participate in local and international competitions and research projects. Moreover, the experts learn from the teaching staff that there are many different options to apply for funding for research projects, not only from ASU but also from the government and big companies the university collaborates with.

In summary, the experts highlight the well engaged staff members and confirm that the composition and scientific orientation of the teaching staff are suitable for successfully im-

plementing and sustaining the degree programmes under review. Furthermore, they appreciate the university's efforts in the further development of its employees and consider the support mechanisms for the continuing professional development of the teaching staff adequate and sufficient.

Criterion 3.2 Funds and equipment

Evidence:

- Self-Assessment Report
- On-site visit of the facilities
- Discussions during the audit

Preliminary assessment and analysis of the experts:
According to the Self-Assessment Report, apart from the general funding of the university and its faculties, the tuition fees are considered the main budget available for the implementation of the study programmes. Student tuition fees are determined and controlled by the Faculty and the University Council. The faculty budget is prepared annually after determining the allocations received from the Ministry of Finance, specifying the volume of cash flows expected to be supplied to the institution, and specifying a time frame for these flows. The academic staff emphasise that from their point of view, both programmes under review receive sufficient funding for teaching and learning activities as well as research, which results in well-equipped facilities and good access to literature, databases and modern software. The students confirm this positive impression and state their satisfaction with the available resources.

During the onsite-visit, the experts could inspect the faculty buildings and some studios used in the Housing Architecture and Urban Development programme as well as the Landscape Architecture programme. With the curriculum revision in 2023 and the development of a new student-centered approach combined with an outspoken orientation towards the demands of the industry, the available equipment has been improved and modernised in some fields and to a certain degree. Administration offices, library, classrooms and studios are all located in the buildings of the Faculty of Engineering campus. ASU also provides space for student life and club activities. Moreover, a variety of software tools related to the architectural engineering fields is installed in the studios. These software tools are used by students during workshops, studio assignments and periodic projects.

During the discussions with programme coordinators and industry representatives, the experts learn that ASU collaborates with several companies in the field of Housing Architecture and Landscape Architecture. Most of them are study and design offices. Within the framework of partnership agreements signed by both parties, the students have access to all the equipment and material available in the partners' facilities.

The students express their satisfaction with the library and the available literature. The library offers direct access to international literature, scientific journals, and publications. From the students' point of view, there is sufficient access to current international literature and databases and a remote access is possible.

The experts appreciate the range of learning tools and resources available to the students and lecturers and consider the university's facilities and available equipment in the studios to be of appropriate standards. During the on-site visit, the experts positively notice the on-going construction in some parts of the campus, as ASU is planning to further expand the infrastructure in terms of individual work spaces while preserving the old heritage. In summary, the expert group judges the available funds, the technical equipment, and the infrastructure (studios, library, class rooms etc.) to comply with the requirements for adequately sustaining the two degree programmes.

Final assessment of the experts after the comment of the Higher Education Institution regarding criterion 3:

As ASU Cairo did not issue any response statement with regard to this criterion, the experts adhere to their initial assessment.

4. Transparency and Documentation

Criterion 4.1 Module Descriptions

Evidence:

- Module descriptions for the two degree programmes

Preliminary assessment and analysis of the experts:

The module handbooks for both degree programmes are published on the university's website and are thus accessible to the students as well as to all stakeholders. The students confirm during the discussions that information about the modules is always available online and that details concerning examinations and contents are provided at the beginning of each course by the teaching staff.

The experts observe that they contain the necessary information about the module identification code, respective content, credit points and workload distribution, grading, teaching methods, the intended learning outcomes, the applicability and the forms of assessment.

However, the experts note that the module descriptions of all programmes do not make the admission and examination requirements transparent and also lack information about the learning outcomes and recommended literature as well as the person responsible for each module. ASU must include this information in the module descriptions of both degree programmes.

Criterion 4.2 Diploma and Diploma Supplement

Evidence:

- Diploma for both degree programmes
- Diploma Supplement for both degree programmes
- Transcript of Records for both degree programmes

Preliminary assessment and analysis of the experts:
The experts confirm that the students of the two degree programmes under review are awarded a Diploma and a Diploma Supplement upon graduation. The Diploma consists of a Diploma Certificate and a Transcript of Records. The Transcript of Records lists all the courses that the graduate has completed, the achieved credits, grades, and cumulative GPA. The Diploma Supplement contains almost all the necessary information about the degree programme. However, it does not list the intended learning outcomes achieved by the student upon completion of the programme, the official duration of the programme, the mode of study (full-time or part-time), the conversion from CH to ECTS as well as information about the access to further study of a regulated profession. Therefore, ASU must ensure that the Diploma Supplement contains this crucial information.

Criterion 4.3 Relevant Rules

Evidence:

- Admission regulations
- Study and examination regulations
- Discussions during the audit

Preliminary assessment and analysis of the experts:
The experts confirm that the rights and duties of both ASU and the students are clearly defined and binding. All rules and regulations are published on the university's website and hence available to all stakeholders. In addition, the students receive all relevant course material at the beginning of each semester.

The experts appreciate that the English website of the programmes include sufficient information about the intended learning outcomes, study plans, module descriptions and academic guidelines of the degree programmes and are made available to all relevant stakeholders.

Final assessment of the experts after the comment of the Higher Education Institution regarding criterion 4:

Criterion 4.1:

ASU Cairo explains that all information about the programmes is published for the students on many platforms including admission, requirements for passing, moving from level to level and graduation either in Arabic or English language, these channels are: faculty web site, a playlist for short videos on Faculty Youtube Channel, ASU Student Portal, Student handbook published on UEL portal, public sessions at the beginning of each academic year as well as advising sessions. ASU Cairo submits all the documents including the requested information. Therefore, the experts consider the requirement to be fulfilled.

Criterion 4.2:

In its response statement, ASU Cairo explains that as per national regulations, studying a bachelor of science degree in engineering is full time. The other required information will be updated on university and faculty level. As these plans have not yet been implemented, the experts adhere to the initial requirement.

5. Quality management: quality assessment and development

Criterion 5 Quality management: quality assessment and development

Evidence:

- Self-Assessment Report
- Quality Management Manual

- Discussions during the audit

Preliminary assessment and analysis of the experts:
The expert panel acknowledges that the Faculty of Engineering has put in place a quality assurance system for its degree programmes. According to the SAR, it strictly defines the competences and responsibilities for the implementation of the quality assurance processes and instruments. The Continuous Improvement & Quality Assurance Unit (CIQAU) has been formed to follow up, organize and cooperate with all departments and programmes to implement the different evaluation instruments. Apart from the CIQAU, the faculty's departments are jointly responsible for all procedures and implementation of the quality systems in their departments. While the CIQAU is supposed to monitor the implementation of the quality assurance strategy, propose measures to remedy identified weaknesses and follow up the measures taken to improve the quality performance, the faculty's departments conduct yearly programme evaluations through internal and external evaluators.

The Self-Assessment Report and the annexes also demonstrate that the faculty makes significant efforts to include the experience and expertise of different stakeholders from within and outside the faculty and the university (for instance, evaluators from other faculties and universities, experts from the industry, and alumni/graduates) in the process of designing and further developing the Bachelor's programmes. The curricula of the two programmes have been updated in 2023 for the last time.

On the programme level, the continuous development mainly relies on a multitude of survey instruments such as course evaluations, student evaluations of the intended learning outcomes, staff member evaluations of students' study performance, or graduate evaluations of the programme outcomes. These instruments appear generally to be adequate to collect meaningful information about whether the programmes' educational objectives and contents actually fit the academic and professional needs of the students, graduates and employers. They are expected to deliver findings about the students' actual achievement of the educational objectives and learning outcomes. Of course, the significance of these quality assurance tools with respect to their capacity in detecting weaknesses or major shortcomings of the programmes are highly dependent on the respective response rate. Given this, the exemplary results presented in the SAR can only be considered as indicative of a principally positive assessment of the programmes. Nevertheless, the faculty has plausibly argued to make good use of the evaluation results for the improvement of the programme.

According to ASU, all surveys are carried out on a regular basis. Alumni, for instance, are asked for their feedback at the time of their graduation as well as and a year after their

graduation. General student feedback regarding their study experience is collected once per academic year. Teaching evaluations are conducted shortly after the middle of each semester for each module. Via an online tool, students can give their feedback anonymously on aspects such as the teaching quality, the course content and their learning progress. Afterwards, the results of the surveys are sent to the teachers for further improvement of the courses and teaching. In the audit, the experts inquire whether the results of the surveys are also shared and discussed with the students. The programme coordinators explain that students receive the survey results. The discussion with the students confirms the closed feedback loop and reveals that those in charge are always eager and open for feedback aside from the official evaluations and that students have the impression that their comments are taken into consideration with regard to the further improvement of the programmes. During the scientific conference day for instance, student representatives from each level have the opportunity to make comments with regard to academic issues. The importance attributed to programme development also becomes apparent in the already mentioned constant curricular revision process that is performed under participation of students and industry partners. The experts are glad to hear that students are satisfied with the programmes and included in the feedback loop.

ASU also regularly consults the industry for the assessment and development of the programmes. In extensive surveys, companies are asked among other things about changes in the labour market, expected qualifications of the graduates, and their satisfaction with interns and graduates from ASU. On this basis, the programme committee discusses whether the curricula and the learning objectives of the individual programmes need to be revised. In the audit discussions, the industry partners report to be satisfied with the students from ASU, especially in terms of their work ethic. Furthermore, the industry partners confirm that their suggestions are generally adopted by ASU. During the audit discussions, the experts learn that while an industry partner spent some months abroad at a Swedish university as part of an Erasmus programme, he noticed that local students had to take more courses in BIM than ASU students. Therefore, he suggested to the programme coordinators to introduce those lectures who in turn adjusted the curricula accordingly. As a result, the industry partner's company now offers those lectures to the students.

The experts appreciate that ASU has a close relationship with the industry partners and regularly collects feedback from them. Thus, the experts agree that the quality management circles at ASU are well established and work under participation of all stakeholders.

In summary, the experts are satisfied with the quality management system at ASU, especially with the continuous feedback loops and the involvement of important stakeholder groups such as students, alumni and representatives from the industry.

Final assessment of the experts after the comment of the Higher Education Institution regarding criterion 5:

As ASU Cairo did not issue any response statement with regard to this criterion, the experts adhere to their initial assessment.

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:

D 1. Explanation about the structure of the double degree agreements with UK and Italy

E Comment of the Higher Education Institution (28.07.2024)

The institution provided a detailed statement as well as the following additional documents:

- Submission samples for first HAUD graduates

F Summary: Expert recommendations (26.08.2024)

Taking into account the additional information and the comments given by ASU the experts 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 Landscape Architecture	With requirements for one year	30.09.2030	EUR-ACE®	Subject to the approval of the ENAEE Administrative Council
Ba Housing Architecture and Urban Development	With requirements for one year	30.09.2030	EUR-ACE®	Subject to the approval of the ENAEE Administrative Council

Requirements for both programmes

A 1. (ASIIN 1.3) ASU must submit the programme-relevant documents that define the new structure of the double degree option with Italy.

A 2. (ASIIN 1.5) It must be ensured that credits are awarded to all compulsory (practical) components of the curricula.

A 3. (ASIIN 4.2) It must be ensured that the Diploma Supplement lists the intended learning outcomes achieved by the student upon completion of the programme, the official duration of the programme, the mode of study (full-time or part-time), the conversion from CH to ECTS as well as information about the access to further study of a regulated profession.

Recommendations for both programmes

E 1. (ASIIN 1.3) It is recommended that more essential basics of construction (e.g. building construction and building physics, also with regard to sustainability) be included in the curricula.

E 2. (ASIIIN 1.3) It is recommended to consider including an additional mobility part in the studio courses.

For Ba Landscape Architecture

E 3. (ASIIN 1.3) It is recommended that ecological systems and environmental influences be increasingly taught as basic principles for the various scales of urban development, as these have decisive influence on the quality of life in residential areas, neighbourhoods and cities.

Recommendations E1 – E3 apply in particular with regard to the university's mission statement, which already includes the 17 Sustainable Development Goals.

For Ba Housing Architecture

E 4. (ASIIN 1.3) It is recommended to include contents of housing theory and current and future building organisation systems in the curriculum.

G Comment of the Technical Committee 03 – Civil Engineering, Geodesy and Architecture (09.09.2024)

Assessment and analysis for the award of the ASIIN seal:

The Technical Committee discusses the procedure and follows the assessment of the experts without any changes.

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

The Technical Committee deems that the intended learning outcomes of the degree programmes comply with the engineering specific parts of Subject-Specific Criteria of the Technical Committee 03 – Civil Engineering, Geodesy and Architecture.

The Technical Committee 03 – Civil Engineering, Geodesy and Architecture recommends the award of the seals as follows:

Degree Programme	**ASIIN Seal**	**Maximum duration of accreditation**	**Subject-specific label**	**Maximum duration of accreditation**
Ba Landscape Architecture	With requirements for one year	30.09.2030	EUR-ACE®	Subject to the approval of the ENAEE Administrative Council
Ba Housing Architecture and Urban Development	With requirements for one year	30.09.2030	EUR-ACE®	Subject to the approval of the ENAEE Administrative Council

Requirements for both programmes

A 1. (ASIIN 1.3) ASU must submit the programme-relevant documents that define the new structure of the double degree option with Italy.

A 2. (ASIIN 1.5) It must be ensured that credits are awarded to all compulsory (practical) components of the curricula.

A 3. (ASIIN 4.2) It must be ensured that the Diploma Supplement lists the intended learning outcomes achieved by the student upon completion of the programme, the official duration of the programme, the mode of study (full-time or part-time), the conversion from CH to ECTS as well as information about the access to further study of a regulated profession.

Recommendations for both programmes

E 1. (ASIIN 1.3) It is recommended that more essential basics of construction (e.g. building construction and building physics, also with regard to sustainability) be included in the curricula.

E 2. (ASIIIN 1.3) It is recommended to consider including an additional mobility part in the studio courses.

For Ba Landscape Architecture

E 3. (ASIIN 1.3) It is recommended that ecological systems and environmental influences be increasingly taught as basic principles for the various scales of urban development, as these have decisive influence on the quality of life in residential areas, neighbourhoods and cities.

Recommendations E1 – E3 apply in particular with regard to the university's mission statement, which already includes the 17 Sustainable Development Goals.

For Ba Housing Architecture

E 4. (ASIIN 1.3) It is recommended to include contents of housing theory and current and future building organisation systems in the curriculum.

H Decision of the Accreditation Commission (24.09.2024)

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

The Accreditation Commission discusses the procedure and is aware of the fact that according to the Supreme Council of Universities in Egypt, it is not allowed to award credits for the internship. According to ASIIN criteria, it is however required to transparently document the workload of the internship in ECTS credits, e.g. in the diploma supplement or any other official document given to the students. The Accreditation Commission underlines that the main focus of the requirements A 2 is to communicate the workload transparently to the students and all other relevant stakeholders. Therefore, students should be issued with a certificate stating that the internship has a certain ECTS workload. Moreover, the Accreditation Commission slightly changes the wording of the recommendation E 1. Apart from that, the Accreditation Commission follows the assessment of the experts and the Technical Committee without any changes.

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

The Accreditation Commission deems that the intended learning outcomes of the degree programmes comply with the engineering specific parts of Subject-Specific Criteria of the Technical Committee 03 – Civil Engineering, Geodesy and Architecture.

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 Landscape Architecture	With requirements for one year	30.09.2030	EUR-ACE®	Subject to the approval of the ENAEE Administrative Council
Ba Housing Architecture and Urban Development	With requirements for one year	30.09.2030	EUR-ACE®	Subject to the approval of the ENAEE Administrative Council

Requirements for both programmes

A 1. (ASIIN 1.3) ASU has to submit the programme-relevant documents that define the new structure of the double degree option with Italy.

A 2. (ASIIN 1.5) The workload of the compulsory internship has to be transparently documented in ECTS (e.g. in the Diploma Supplement or a separate document given to the students).

A 3. (ASIIN 4.2) It has to be ensured that the Diploma Supplement lists the intended learning outcomes achieved by the student upon completion of the programme, the official duration of the programme, the mode of study (full-time or part-time), the conversion from CH to ECTS as well as information about the access to further study of a regulated profession.

Recommendations for both programmes

E 1. (ASIIN 1.3) It is recommended to include more essential basics of construction (e.g. building construction and building physics, also with regard to sustainability) in the curricula.

E 2. (ASIIIN 1.3) It is recommended to consider including an additional mobility part in the studio courses.

For Ba Landscape Architecture

E 3. (ASIIN 1.3) It is recommended that ecological systems and environmental influences be increasingly taught as basic principles for the various scales of urban development, as these have decisive influence on the quality of life in residential areas, neighbourhoods and cities.

Recommendations E1 – E3 apply in particular with regard to the university's mission statement, which already includes the 17 Sustainable Development Goals.

For Ba Housing Architecture

E 4. (ASIIN 1.3) It is recommended to include contents of housing theory and current and future building organisation systems in the curriculum.

I Fulfilment of Requirements (26.02.2025)

Analysis of the experts and the Technical Committee (06.03.2025)

Requirements

For all degree programmes

A 4. (ASIIN 1.3) ASU has to submit the programme-relevant documents that define the new structure of the double degree option with Italy.

Initial Treatment	
Experts	Fulfilled. Justification: ASU submits documents that include the study plan for the double degree option with Italy. The study plan includes the correspondence of subjects at ASU and UNIRC. Moreover, the document describes the conversion of the credit and grading system in Italy and Egypt.
TC 03	Fulfilled. Justification: The TC follows the assessment of the experts without any changes.
AC	Fulfilled. Justification: The AC follows the assessment of the experts and the TC without any changes.

A 5. (ASIIN 1.5) The workload of the compulsory internship has to be transparently documented in ECTS (e.g. in the Diploma Supplement or a separate document given to the students).

Initial Treatment	
Experts	Fulfilled. Justification: ASU submits updated Diploma Supplements for both programmes that list the required information.
TC 03	Fulfilled. Vote: unanimous Justification: The TC follows the assessment of the experts without any changes.
AC	Fulfilled.

	Justification: The AC follows the assessment of the experts and the TC without any changes.

A 6. (ASIIN 4.2) It has to be ensured that the Diploma Supplement lists the intended learning outcomes achieved by the student upon completion of the programme, the official duration of the programme, the mode of study (full-time or part-time), the conversion from CH to ECTS as well as information about the access to further study of a regulated profession.

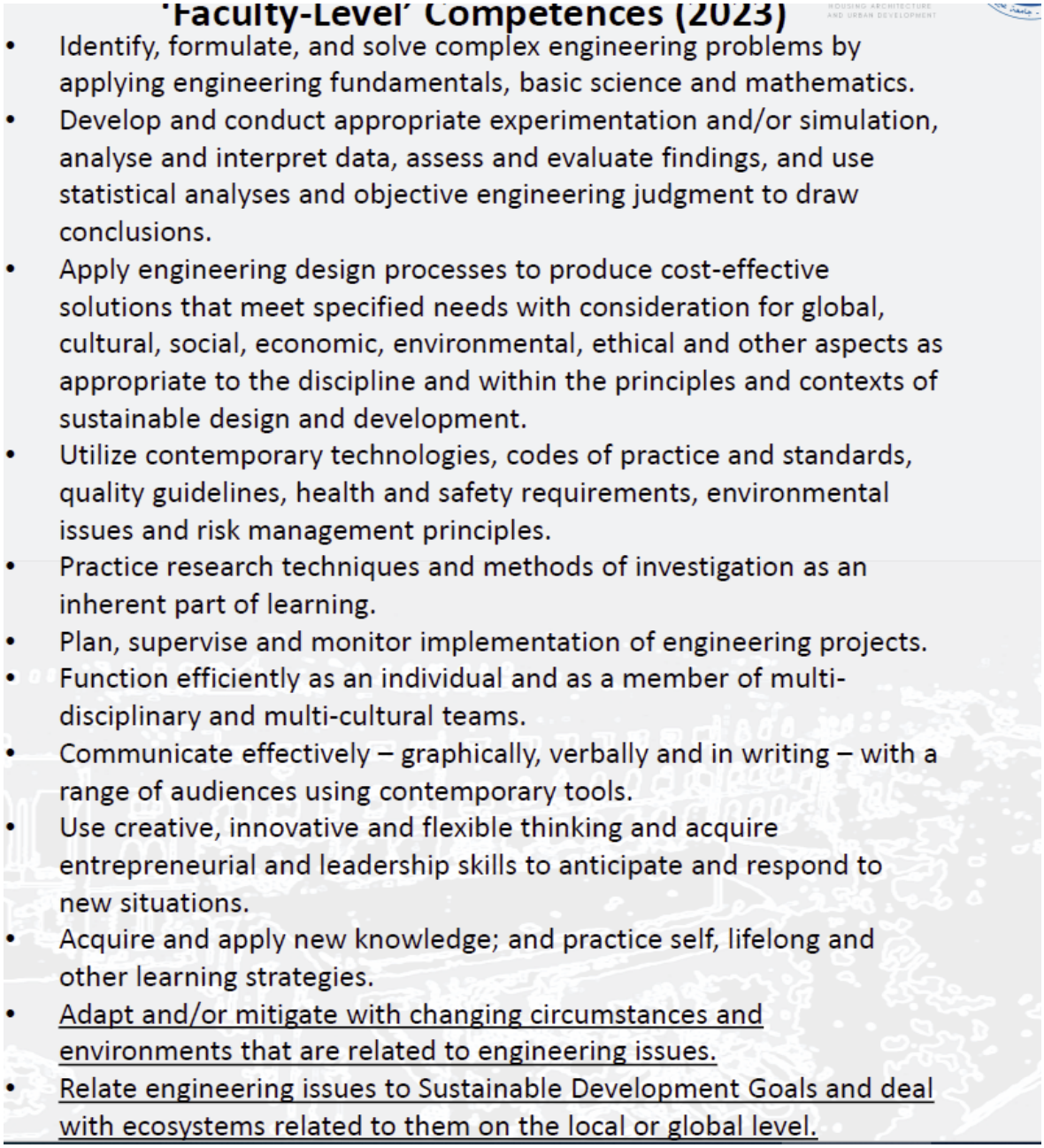
Initial Treatment	
Experts	Fulfilled. Justification: ASU submits updated Diploma Supplements for both programmes that list the required information.
TC 03	Fulfilled. Vote: unanimous Justification: The TC follows the assessment of the experts without any changes.
AC	Fulfilled. Justification: The AC follows the assessment of the experts and the TC without any changes.

Decision of the Accreditation Commission (25.03.2025)

Degree programme	**ASIIN-label**	**Subject-specific label**	**Accreditation until max.**
Ba Landscape Architecture	All requirements fulfilled	EUR-ACE®	30.09.2030
Ba Housing Architecture and Urban Development	All requirements fulfilled	EUR-ACE®	30.09.2030

Appendix: Programme Learning Outcomes and Curricula

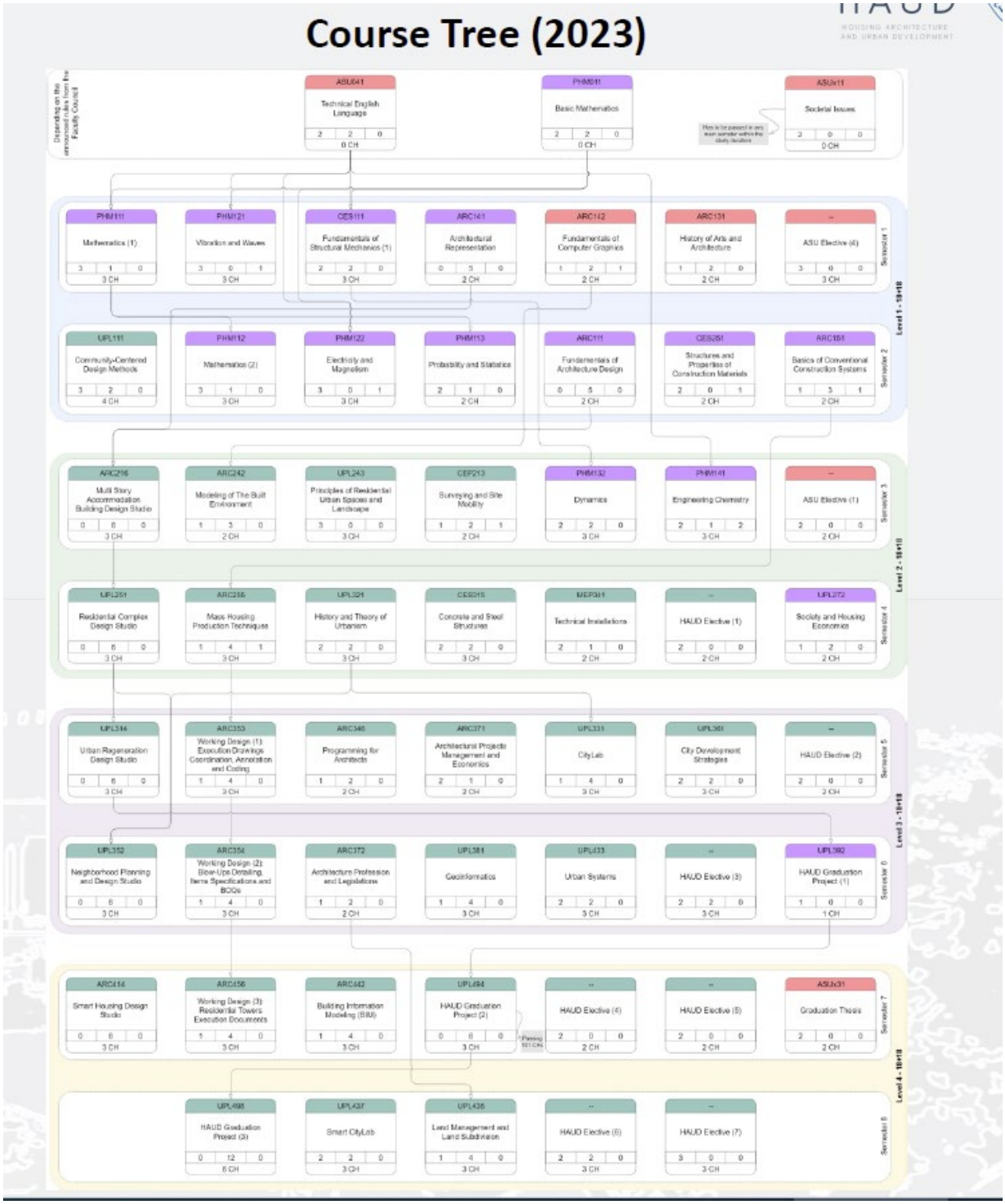
According to the faculty bylaws the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Bachelor's degree programme Housing Architecture and Urban Development:



'Program-Level' Competences (2023)

- Adapt and/or mitigate with changing circumstances and environments that are related to engineering issues.
- Relate engineering issues to Sustainable Development Goals and deal with ecosystems related to them on the local or global level.
- Create aesthetically pleasing and technically sound architectural designs ranging across different scale based on the most contemporary trends and smart systems and theories of architecture, urban and planning.
- Produce designs that meet building users' requirements through understanding the relationship between people and buildings; and the need to relate indoor and outdoor to human needs, scale and environment.
- Prepare design project briefs and documents and analyse the context of the architecture in the construction industry, Infrastructure including the architect's role in the processes of bidding, procurement of architectural services, and building production.
- Solve problems and creatively design housing schemes or urban contexts that demonstrate awareness and integration of information and processes in project work by considering their contexts (social, economic, political, institutional, / environmental and physical) technical installations, infrastructure and engineering problems associated with building designs with the underlying concepts and theories.
- Apply appropriate mathematical and computer-based methods for modelling and analyse spatial and non-spatial data to produce integrated architecture documents and Land Mapping.
- Judge engineering decisions considering balanced costs, benefits, risks, safety, quality, reliability, and housing market, while having adequate knowledge of industries, organizations, regulations, and procedures involved.
- Produce professional technical and workshop drawings to transform the concepts into buildings using traditional drawing tools and computer-aided drawings' techniques, as well as building information modelling techniques, urban informatics.
- Exchange knowledge and skills with engineering sectors and industrial sectors working in the field of Housing production.
- Evaluate and formulate Strategies and models of policy for develop or regenerate resources towards sustainable housing provision, informal upgrading and urban development.

The following **curriculum** is presented:



According to the faculty bylaws the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Bachelor's degree programme Landscape Architecture:

'Faculty-Level' Competences (2023)

1. Aware of national, regional and international contemporary issues, to have an intellectual and enlightened personality and to interact effectively in the community through different communication skills.
2. Identify, formulate, and solve complex engineering problems by applying engineering fundamentals, basic science and mathematics.
3. Develop and conduct appropriate experimentation and/or simulation, analyse and interpret data, assess and evaluate findings, and use statistical analyses and objective engineering judgment to draw conclusions.
4. Apply engineering design processes to produce cost-effective solutions that meet specified needs with consideration for global, cultural, social, economic, environmental, ethical and other aspects as appropriate to the discipline and within the principles and contexts of sustainable design and development.
5. Utilize contemporary technologies, codes of practice and standards, quality guidelines, health and safety requirements, environmental issues and risk management principles.

'Faculty-Level' Competences (2023)

6. Practice research techniques and methods of investigation as an inherent part of learning.
7. Plan, supervise and monitor implementation of engineering projects.
8. Function efficiently as an individual and as a member of multi-disciplinary and multi-cultural teams.
9. Communicate effectively – graphically, verbally and in writing – with a range of audiences using contemporary tools.
10. Use creative, innovative, and flexible thinking and acquire entrepreneurial and leadership skills to anticipate and respond to new situations.
11. Acquire and apply new knowledge, and practice self, lifelong and other learning strategies.
12. Adapt and/or mitigate with changing circumstances and environments that are related to engineering issues.
13. Relate engineering issues to Sustainable Development Goals and deal with ecosystems related to them on the local or global level.

Program Objectives

In addition to the competences for all Engineering Programs (A-Level), the Landscape Architecture Program graduate must be able to (D-Level):

* D1: Create architectural, urban and landscape designs that satisfy both aesthetic and technical requirements, using adequate knowledge of: history and theory, related fine arts, local culture and heritage, technologies and human sciences.
* D2: Integrate relationship of structure, energy systems, landscape materials, and construction elements into design process in different scales.
* D3: Discuss, search and formulate informed opinions appropriate at specific context and circumstances affecting landscape architecture profession and practice.
* D4: Judge landscape architecture decisions considering balanced costs, benefits, safety, quality, reliability, and environmental impact.
* D5: Propose creative and innovative solution for problems facing landscape architecture projects.
*D6: Professionally merge the engineering knowledge and landscape architecture, understanding, and feedback to improve design, products and/or services.
* D7: Deal with sensitive spaces and locations using the required understanding for human needs and socio-economic dynamics.
* D8: Use and apply information technology and contemporary computer applications while dealing with landscape architecture issues
* D9: Prepare design project briefs and documents; and understand the context of the landscape architect in the construction industry, including the architect's role in the processes of bidding, procurement of architectural services and building production.
*D10: Generate ecologically responsible, environmental conservation and rehabilitation designs; through understanding of: structural design, construction, technology and engineering problems associated with architectural landscape designs.

The following **curriculum** is presented: