RIBA

Royal Institute of British Architects

Report of the RIBA Full Visiting Board to the Arab Academy for Science, Technology and Maritime Transport, Alexandria Campus

Date of visiting board: 12-13 May 2024
Confirmed by RIBA: 10 September 2024

1 Details of institution hosting courses

Arab Academy for Science, Technology and Maritime Transport
College of Engineering and Technology
P.O. Box 1029
Abu Qir Campus
Alexandria
Egypt

2 Courses offered for validation

BSc in Architectural Engineering and Environmental Design (Part 1)
MSc Architectural Engineering and Environmental Design (Part 2)

3 Head of Department (Architectural Engineering & Environmental Design)

Prof. Adham Abu Elnour

RIBA Coordinator

Dr. Sally Said Eldeeb

4 Awarding body

Arab Academy for Science, Technology and Maritime Transport

5 The visiting board

Prof. Sally Stewart	Chair/Academic
Dr. Sara Biscaya	Academic
Negar Mihanyar	Practitioner
Prof. Basil Kamel	Regional Representative
Sophie Bailey	Head of RIBA Validation

6 Procedures and Themes and Values for Architectural Education

The visiting board was carried out under the RIBA Procedures for Validation and Themes and Values for UK and international courses in architecture (published September 2021, and effective from September 2022); this document is available at www.architecture.com.

7 Proposals of the visiting board

On 10 September 2024, the RIBA confirmed continued validation/s of the following courses:

BSc in Architectural Engineering and Environmental Design (Part 1)
MSc Architectural Engineering and Environmental Design (Part 2)

The next visit to the Arab Academy for Science, Technology and Maritime Transport, Alexandria campus, will take place in 2029.

8 Standard requirements for continued recognition

Continued RIBA recognition of all courses and qualifications is dependent upon:

i external examiners being appointed for the course
ii any significant changes to the courses and qualifications being submitted to the RIBA
iii any change of award title, and the effective date of the change, being notified to the RIBA so that its recognition may formally be transferred to the new title

iv submission to the RIBA of the names of students passing the courses and qualifications listed

v In the UK, standard requirements of validation include the completion by the of the annual statistical return issued by the RIBA Education Department

9 Academic position statement (written by the School)

Our vision is to maintain the position of the Architectural Engineering and Environmental Design Department (AEEDD) as a leading institution recognized locally, regionally, and globally for its high-quality educational practices, commitment to sustainability, and readiness to adapt to the ever-evolving demands of the profession. We aspire to build architects who are not only technically proficient but also deeply conscious of their role in shaping the built environments.

Acknowledging the rapid pace of the profession, the varying requirements of the accreditation bodies, the technological advancements and the complexities of implementing sustainable practices, we are dedicated to continuously evolving our curriculum, and pedagogies to meet these challenges head-on.

We also extend our vision beyond traditional educational goals to embrace the diverse motivations and backgrounds of our student body. Recognizing that not all students come to us with a clear passion for architecture or a pre-determined talent in the field, we understand that for some, the journey into architecture is one of discovery, born out of circumstance rather than an initial choice. This reality presents a unique and sophisticated challenge in cultivating their identities as architects.

We are committed to creating an educational environment that awakens the students genuine interest in architectural design and its impact on society and the environment. Through innovative educational practices that not only impart technical proficiency but also inspire a profound love and respect for the profession, we aim to engage students in a curriculum that is both challenging and rewarding.

By embracing these challenges as opportunities, we are determined to lead in architectural education and practice. We aim to transform our students' perspectives, helping them develop a passionate commitment to architecture, regardless of how their journey with us began.

Our vision embraces the reality of such hurdles, seeing them as opportunities for growth, innovation, and leadership in architectural education and practice.

In the rapidly evolving landscape of architectural engineering and environmental design, the integration of new technologies and computer programs into educational curricula has become imperative. A forward-thinking Architectural Engineering and Environmental Design department school recognizes the dynamic nature of the industry and strives to equip its students with the skills and knowledge needed to thrive in an ever-changing market. All designs must satisfy minimum aesthetics and technical requirements in which students have to demonstrate knowledge and

application of a specific set of competencies that meet the demands of the practice in an ever-changing world with very specific needs.

Adaptation to Technological Advancements:
The Architectural Engineering and Environmental Design department embraces technological advancements in response to the evolving architectural landscape. This includes adapting to emerging technologies like Building Information Modelling (BIM), Artificial Intelligence (AI) and parametric design.

Integration of Computer Programs:
The curriculum emphasizes hands-on experience with widely-used industry Software such as AutoCAD, Revit, Rhino, SketchUp and Photoshop to enhance efficiency and facilitate digital collaboration.

Focus on Sustainability and Environmental Design: A strong focus on sustainability incorporates relevant technologies like energy modelling Software and daylighting analysis tools, aligning with industry commitments to environmentally responsible design.

Interdisciplinary Approach: The department promotes interdisciplinary collaboration, recognizing the complexity of contemporary architectural projects, by integrating project management and communication tools.

Continuous Professional Development: Continuous professional development is prioritized through workshops, seminars, and industry partnerships, ensuring students graduate with up-to-date skills.

1.1. Areas of Activity in the AEED The emphasis of this program is on preparing students to become practicing designers. Thus the major focus of the curriculum is the design studio in which students deal with projects of increasing complexity. As these designs must satisfy both aesthetics and technical requirements, students have to understand construction and engineering problems associated with building design. Studio work is supported by courses in history and theory of architecture, human sciences, building technology, environmental controls, and structures, with computer as accessible tool to all students. Graduates are qualified to work as architectural designers and can gain further qualifications to become interior. designers, planners, landscape architects or conservation specialists. Students can also work in the field of contracting, execution, tender preparation & evaluation, and/or the field of research & studies, or feasibility studies and project management as well as maintenance & restoration of buildings.

1.2. Specific Outcomes of School Between the B.Sc. and MSc programs students are awarded RIBA I and II. Students are awarded RIBA I after finishing 144 cr.hr (year four of their B.Sc. studies). Students are awarded B.Sc. degree after finishing 5 years, and if they choose to continue on the MSc program, they are awarded RIBA II after finishing all the modules of the program (a total of 204 cr.hr). The program introduces students to the theoretical and scientific bases that enables them to acquire professional competency which meets future needs and job opportunities in Egypt and abroad. It also aims at preparing graduates capable of creative thinking, problem solving and having the ability to conceptualize and create efficient,

context relevant designs that satisfy the multiplicity of human, social & ecological needs. A prime goal of the program is to prepare graduates to organize liveable environments on all levels: isolated buildings or building complexes (Architecture), both externally and internally (Interior Design), relationship between buildings (Urban Design), the way they relate to their surroundings (Landscape Architecture), and Town and Regional Planning. Beside the architectural and urban design the graduate is able to deal with modern tools & technologies and also to undertake activities related to research, futuristic approach, and development.

Our graduates are mentored to work in the local and international markets with a large variation of skills that give them competitive edge; from design skills, to environmental sensitivity and social problems awareness, to technical knowledge of the complex systems that form the built environment, to oral and visual presentation skills that enable them to communicate their ideas effectively.

In general more than 50% of the students work is of design nature. The design projects are the outputs of the modules 'Architectural Design' 1 through 6 and Graduation project and Interior Design and Urban Design. Throughout the program the design projects develop gradually in complexity in both size and depth.

Parallel to the design modules runs a series of 7 building technology modules. The first 4 of which prepare the students to the different components of the building and the construction technologies. The last 3 of the building technology modules introduce the students to the complex nature of integrated technologies across the different building parts and levels.

At an intermediate point during the program (between semesters 6 and 7) the design projects are integrated with the building technology modules for the students to have a complete vision of how the design and technology form one big picture. 3 Theoretical modules include history and theory modules, environmental studies and professional practice modules.

At RIBA II level students follow on the curriculum of RIBA I for one more year to finish their graduation project. After which students are encouraged to start practicing architecture before joining the MSc program (should they wish to do so).

The MSc program constitutes 3 core and 5 elective modules to precede the MSc Thesis (Thesis is outside the scope of the RIBA accreditation). Outputs of this part of the study are predominantly scientific research in the different aspects of architecture and urban design with few exceptions. The outputs of the core module Architectural Design AR715 (which is the last module a student can register in their RIBA II studies) range between a scientific research and a design project. The design project of this module is celebrated in the AEEDD as the graduation project of RIBA II.

10 Commendations

10.1 The board commends the level of technical knowledge and design execution evidenced in the early years of the BSc, and how this contributes to the technical competences within the Part 1.

10.2 The board commends the school on their engagement with industry and practice through regular, formal advisory boards and events.

11 Conditions

There are no conditions.

12 Action points

The visiting board proposes the following action points. The RIBA expects the university to report on how it will address these action points. The university is referred to the RIBA's criteria and procedures for validation for details of mid-term monitoring processes. Failure by the university to satisfactorily resolve action points may result in a course being conditioned by a future visiting board.

12.1 The school should consider how the opportunities for integration and synthesis of learning between courses can be made more apparent, and can be consolidated across and between courses especially within the Part 2.

12.2 The school should consider how environmental and technical strategies can better reflect passive, traditional and intermediate technologies, recognising the increasing imperative of climate responsive design.

12.3 The school should consider the range of scales of design briefs set across the programmes, to provide a wider range of contextual, programmatic and typological circumstances for students to negotiate.

12.4 The school should ensure that each of the specialist focused pathways beginning in year 5 provide parity of design challenge, while also meeting the requirements of Themes and Values and the Graduate Attributes at Part 2.

13 Advice

The visiting board offers the following advice to the School on desirable, but not essential improvements, which, it is felt, would assist course development and raise standards.

13.1 The board urges the school to consider how it can develop a platform to gather and share projects and research in relation to the contemporary and future development of Alexandria, in relation to a wide range of audiences including professional, city and government.

13.2 The school should consider how context and materiality can be better exploited and evidenced within projects, particularly where a focus on adaptive re-use is identified.

13.3 The board encourages the School to explore that point at which the Themes and Values and the Graduate Attributes are met to achieve the Part 2,

acknowledging the changes that have occurred earlier within year 1 to develop it beyond a foundation.

13.4 The School should consider how all students completing the Part 2 demonstrate a clear focus on design within their final work.

13.5 The school should consider how the use of case studies and precedents are used to inform design decision in all years.

14 Delivery of graduate attributes

It should be noted that where the visiting board considered graduate attributes to have been met, no commentary is offered. Where concerns were noted (or an attribute clearly not met), commentary is supplied. Finally, where academic outcomes suggested a graduate attribute was particularly positively demonstrated, commentary is supplied.

Graduate Attributes for Part 1
The Board confirmed that all of the Part 1 graduate attributes were met by graduates of the BSc in Architectural Engineering and Environmental Design

Graduate Attributes for Part 2
The Board confirmed that all of the Part 2 graduate attributes were met by graduates of the MSc Architectural Engineering and Environmental Design (Part 2)

15 Review of work against Themes and Values

It should be noted that where the visiting board considered the Themes and Values to have been met, no commentary is offered. Where concerns were noted (or a T&V were clearly not met), commentary is supplied. Finally, where academic outcomes suggested a T&V was particularly positively demonstrated, commentary is supplied.

Themes and Values for Part 1
The Board confirmed that all of the Themes and Values were met by graduates BSc in Architectural Engineering and Environmental Design

Themes and Values for Part 2
The Board confirmed that all of the Themes and Values were met by graduates MSc Architectural Engineering and Environmental Design.

16 Other information

16.1 Student numbers

BSc in Architectural Engineering and Environmental Design (Part 1)
287 students

MSc Architectural Engineering and Environmental Design (Part 2)
130 students

16.2 Documentation provided

The Department provided all documentation as required by the Procedures for Validation.

17 Notes of meetings

On request, the RIBA will issue a copy of the minutes taken from the following meetings. These notes will not form part of the published report but will be made available on request.

- Budget holder and course leaders
- Students
- Head of Institution
- External examiners
- Staff