Royal Institute of British Architects

Report of the RIBA visiting board to the Arab Academy for Science, Technology and Maritime Transport (AASTMT)

Alexandria, Egypt

Date of visiting board: 20-21 October 2014
Confirmed by RIBA Education Committee: 11 February 2015
1. **Details of institution hosting courses**
   Arab Academy for Science, Technology and Maritime Transport (AASTMT)
   College of Engineering and Technology
   Department of Architectural Engineering and Environmental Design
   P.O. Box 1029
   Abu Qir Campus
   Alexandria
   Egypt

2. **Dean of College of Engineering and Technology**
   Professor Moustafa Hussein

   **Head of Architectural Engineering and Environmental Design Department**
   Professor Adel El Menchawy

3. **Courses offered for revalidation**
   BSc in Architectural Engineering and Environmental Design
   *(4 years full time)* Part 1

   MSc Architectural Engineering and Environmental Design
   *(The final two semesters (year 5) of the BSc in Architectural Engineering and Environmental Design, and including the two part-time years of the MSc Architectural Engineering and Environmental Design)* Part 2

4. **Course co-ordinators**
   Dr Rania El Sayed Abdel Galil, Part 1
   Professor Gihan Mosaad, Part 2

5. **Awarding body**
   Arab Academy for Science, Technology and Maritime Transport (AASTMT)
   College of Engineering and Technology
   Department of Architectural Engineering and Environmental Design
   Alexandria Campus
   Egypt

6. **The visiting board**
   Professor Karim Hadjri (Chair)
   Dr Jenny Russell (Vice-Chair)
   Sara Shafiei
   Cany Ash
   Professor Basil Kamel (Regional Representative)
   Mirella Jenei (Secretary)

7. **Procedures and criteria for the visit**
   The visiting board was carried out under the RIBA procedures for validation and validation criteria for UK and international courses and examinations in architecture (published July 2011, and effective from September 2011); this document is available at [www.architecture.com](http://www.architecture.com).
8. **Proposals of the visiting board**

At its meeting on 11 February 2015 the RIBA Education Committee confirmed **unconditional revalidation of**:

**BSc in Architectural Engineering and Environmental Design**
*(4 years full time)* RIBA Part 1

**MSc Architectural Engineering and Environmental Design**
*(The final two semesters (year 5) of the BSc in Architectural Engineering and Environmental Design, and including the two part-time years of the MSc Architectural Engineering and Environmental Design)*

1 year full-time: 36 credit hours, 2 years part-time: 24 credit hours, RIBA Part 2

The next full visit should take place in 2019.

9. **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 institution of the annual statistical return issued by the RIBA Education Department

10. **Academic position statement**

1. **Academic Position**

1.1. **School's Vision**

The vision of the Architectural Engineering and Environmental Design Department (AEED) is to become an internationally renowned centre of excellence that enriches the architectural field with highly qualified graduates as well as research work of high calibre, supported by quality facilities and exceptional human and educational resources. We seek to capitalise on our geographical location through collaboration with the professions and institutions involved in the design of the built environment, grasping the creative potential of the surrounding urban environment. Through our work we hope to make a valuable contribution to the development of the discipline and its professional practice, to architectural education, and to the community of Alexandria and the wider region.

1.2. **Areas of Activity in the AEED**

The emphasis of this programme 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 computers as accessible tools to all students. Architects are qualified to work as architectural designers and can gain further qualifications to become interior designers, planners, landscape architects or conservation specialists. They can also work in the field of contracting, execution, tender preparation & evaluation, and/or the field of research and studies, or feasibility studies and project management as well as maintenance and restoration of buildings.

1.3. Specific Outcomes of School
The programme introduces students to the theoretical and scientific bases and 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 imagination, creative thinking, problem solving and critical thinking and having the ability to conceptualise and create efficient, context relevant, beautiful designs that satisfy the multiplicity of human, social & ecological needs. A prime goal of the programme is to prepare graduates to organise 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.

1.4. Features of Distinction
The programme has been developed with a strong concern for various environmental factors, cultural and social contexts which are central to the modules and assignments. The commitment of the department to community service and the integration of ‘live’ projects (particularly at Part 2). Live projects are developed in the AEEDD and given to decision makers. They are developed either upon request from decision makers or through staff own firms and research work. A live project needs to have a real site and a real problem. An example of such projects is the Development of Abu Qir area in which the AEEDD sits. In such project a large number of students and staff were involved to provide a vision for the area development and suggest solutions to different planning issues in the area, such as transportation, slums upgrading, etc... This type of projects allows students to experience professional activities within the educational context of the curriculum. Resources available ensure high quality education. Highly qualified faculty members on the programmes include architects, interior designers, engineers, graphic designers, and artists. This same academic staff teaches across both programmes (part 1 & part 2) which enriches students experience. Also the department prides itself on the range of elective modules on offer (such as arts, painting and music), as well as computer skills acquired by students. These assets ensure a distinctive learning experience and attract students to the programmes. There is a broad ethnic mix in the student population representing many nationalities, and a good gender balance providing an interesting environment of exchange of experiences. Practical Training (IM400) allows insights into the profession and adds valuable experience.

1.5. Visiting Critics and Department’s Activities

Confirmed Report – for publication
The Department continuously seeks advice and assistance of visiting critics and professors that continue to review the programme and act as examiners. They prepare a report which is discussed in departmental meetings.

The Department is also arranging for students immersion in a European environment and for them to be involved in a new learning experience through the facilitation of visiting two prominent summer schools in the UK; one in Cardiff University; Welsh school of Architecture under the title Low Carbon Architecture Summer Programme, the second is in Lincoln School of Architecture under the title 'Sustainable Architecture and Entrepreneurship'

1.6. Aims and outcomes of RIBA I award level
The first award level; Part 1 corresponds to years 1-4, BSc Architectural Engineering and Environmental Engineering. It is a strong and progressive learning experience, on completion of the 4th year students are able to demonstrate coherent designs in a variety of contexts, and of diverse scales, complexity, and types that integrate knowledge of the architectural histories and theories, of physical, artistic and cultural contexts, and their use in informing the design process.

Students are also able to demonstrate the principles of building technologies, environmental design and construction methods, in relation to: human wellbeing, the welfare of future generation, the natural world, consideration of a sustainable environment, use of materials, process of assembly and structural principles.

1.7. Aims and outcomes of RIBA II award level
The second award level; Part 2 corresponds to year 5, BSc + years 6 and 7, MSc Architectural Engineering and Environmental Engineering. It offers the opportunity for students to demonstrate both the skills and knowledge acquired at Part 1, and enables them to engage with architecture as research, combined with practice. The combination of the final year of the BSc programme together with a research-driven two-year part-time taught programme and professional experience acquired in architectural firms provides an innovative model that informs the practice.

1.8. Courses for Professional Practice
The courses qualify students to generate, develop and evaluate creative, innovative and appropriate solutions and proposals for societal problems. Students are able to prepare, develop and present technical drawings using an appropriate range of visual, verbal and written media, including both digital and non-digital methods. The courses prepare them to elaborate analytical reports presenting architectural, urban and planning proposals with particular emphasis on up-to-date appropriate techniques and materials and sustainability issues.

1.9. Interpretation of The validation criteria
We situate the design project in a strong contextual setting such that students consider the environmental, social and economic issues expanding their understanding of the design process. Having real life problems and engaging with social challenges help them elaborate design briefs reflecting people’s needs using relevant theories and appropriate technologies and materials. A very strong integrative approach is adopted between design and building technology modules and other modules, which feed directly into the design process.
11. **Commendations**

The visiting board made the following commendations:

11.1. The Department's ethos of social responsibility and environmental design using the city of Alexandria as an urban laboratory.

11.2. The dedicated staff, student bodies and external examiners, and the sense of unity and shared vocation.

11.3. The implementation of the external examination process.

12. **Conditions**

There are no conditions attached to the courses listed in item 8.

13. **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 visits. Failure by the university to satisfactorily resolve action points may result in a course being conditioned by a future visiting board.

13.1. The Board strongly recommends that students are encouraged to further integrate and apply environmental technology and contextual studies into their design process, and to implement the Department ethos across all stages of both programmes.

13.2. The Board recommends that studio culture is supported to offer students a platform to discuss and develop process and creativity, and achieve a fulfilling student experience. Students should be allowed sufficient time within their schedule to employ critical thinking, reflection and tectonic creativity.

13.3. The Board strongly recommends that physical modelling and other media types, such as film, animation and installations are used to inform the design process, and that the Department provide students with space and facilities to accommodate this.

13.4. The Board strongly suggests that courses run in semester 8 (AR456 and AR415 and AR416) are integrated. This creates the opportunity for a small scale comprehensive design project to fully demonstrate integration of technology, cultural context and design, and to demonstrate competency for Part 1.

13.5. The Board strongly recommends that the programme team at Part 2 revisit the content of core courses to ensure the General Criteria mapped against each course can actually be delivered in the course itself. The team should also ensure that electives are not seen as delivering key criteria.

14. **Advice**

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

14.1. The Department is advised to make more use of the richness and complexity of the fast changing city of Alexandria using innovative methods of research to further inform the design outcome of projects in even more responsive and creative ways.

14.2. The Board suggests that portfolios and design work should have more evidence of process work and design development.

14.3. The Board encourages the Department to investigate and implement opportunities for exchange of student and staff at national and international levels.
14.4. The Board encourages the Department to engage specialist input from industry to provide further expertise, e.g. structural design and earthquake engineering.

14.5. The Board commends the Academy and the peer support available for research and staff development, and recommends that the Department allow more time to staff for research and scholarly work.

14.6. The Board encourages the Department to consider removing the Interior Landscape (AR544) course and strengthen contents of Interior Design 2 (AR512) and Furniture Details (AR553) at Part 2.

14.7. The Board suggests that at Part 2, AR715 is strengthened through a stronger emphasis on design in order to meet the GC1.

14.8. The Board feels that at Part 2, AR717 and AR713 could be combined given that AR717 demonstrates considerable potential and could offer good practice as a core course.

14.9. The students should be encouraged to further explore spatial qualities of interiors, materiality and tectonics.

14.10. The Board advises the Department to strengthen the deep knowledge of architectural culture via the interrogation of precedents and through the use of books, e-library, building visits, podcasts, films and seminal texts.

15. Delivery of academic position
The following key points were noted:

15.1. The Department should articulate the rationale behind recent changes made to the BSc programme and the bank of electives.

16. 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

GA1.2 ability to apply a range of communication methods and media to present design proposals clearly and effectively
There is a need to encourage students to explore various communication methods and media type to support design development and resolution (See Advice 14.10).

GA1.3 understanding of the alternative materials, processes and techniques that apply to architectural design and building construction
Further integration of Technology and Environmental Design would improve students’ design proposals and the understanding of building design (See Advice 14.9).

Graduate Attributes for part 2

GA2.4 critical understanding of how knowledge is advanced through research to produce clear, logically argued and original written work relating to architectural culture, theory and design
This is a strength at Part 2 level. Students produce a large amount of research driven output as part of the MSc programme.

17. **Review of work against criteria**

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

   The Board considered that the BSc in Architectural Engineering and Environmental Design (4 years full time) and MSc Architectural Engineering and Environmental Design (The final two semesters of the BSc in Architectural Engineering and Environmental Design, and including the two part-time years of the MSc Architectural Engineering and Environmental Design) programmes address all criteria at Part 1 and Part 2 respectively.

18. **Other information**

18.1. **Student numbers**

   Total student numbers Part 1: 848
   Total student numbers Part 2: 197

18.2. **Documentation provided**

   The Department provided all advance documentation in accordance with the validation procedures.

19. **Meetings**

   On request, the RIBA will issue a copy of the minutes taken from the following meetings:

   - Budget holder and course leaders
   - Meeting with students
   - Meeting with Head of Institution
   - Meeting with external examiners
   - Meeting with staff