Report of the RIBA exploratory board to
The Bartlett School of Architecture, University College London

Date of visiting board: 2 December 2020
Confirmed by RIBA Education Committee: 19 April 2021
1 Details of institution hosting course
The Bartlett School of Architecture
University College London
22 Gordon St
Bloomsbury
London
WC1H 0QB

2 Head of School
Bob Sheil School Director
Barbara Campbell Lange Deputy School Director

Programme Manager/course leader
Luke Olsen Programme Director

3 Course/s offered for candidate course status
MEng Engineering and Architectural Design (EAD) Proposed Part 1

4 Awarding body
University College London

5 The visiting board
Andrew Wilson academic/Chair
David Howarth practitioner/academic
Negar Mihanyar practitioner
Sophie Bailey RIBA validation manager

6 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.

The standard RIBA Exploratory Visiting Board was modified exceptionally to allow all parties to comply with UK Government guidelines necessitated by the COVID-19 pandemic. The 2020 visit was conducted entirely online.

7 Recommendation of the Exploratory Board
The Board was invited by University College London to consider its MEng Engineering and Architectural Design (EAD) for candidate course status for Part 1.

The designation ‘Candidate Course for Validation’ implies that the course has been judged to have the potential to meet RIBA criteria, if implemented as anticipated. It is not, however, equivalent to recognition, which can only be granted once the standard of work produced by graduating students has been assessed and found satisfactory.

On 19 April 2021, the RIBA Education Committee confirmed that candidate course status for Part 1 be awarded to the:

MEng Engineering and Architectural Design (EAD)
The initial RIBA visiting board will take place in 2021.

8 Standard requirements for validation
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

9 Academic position statement (statement written by the school)

A new pioneering 4-year integrated Masters in Engineering and Architectural Design, involving The Bartlett School of Architecture (BSA), UCL Civil Environmental and Geomatic Engineering (CEGE), and the UCL Institute for Environmental Design and Engineering (IEDE), hosted at The Bartlett School of Architecture, UCL.

Historically, architecture and engineering skills were indivisible – entirely symbiotic. UCL’s new venture [MEng EAD] at Here East recognises that what are now commonly regarded as separate disciplines can in fact be brought back together, under one roof, within a unified academic programme. It is hugely encouraging.

Norman Foster, Founder of Foster + Partners, Here East: 2018

Programme Summary
The design, delivery, and development of the built environment relies on the successful integration of creative vision, knowledge, skill, technology, and engineering. Living in a world of rapid change we are witnessing new paradigms unfold in economics, technology, demographics, politics, and culture. Communication and mobile network technologies alone have transformed the way we understand, occupy and use the built environment and recent advances in simulation and production mean that our future is underpinned with an unprecedented abundance of powerful and creative tools with which we can engineer the future. The question we face in the 21st century is not so much how we design and make the built environment, it’s who will design and make the built environment, and why.

Our contention is that the grand challenges facing society, and indeed the planet i.e. sustainability, well-being, and intercultural interactions, all implicate the built environment. This proposed new programme is thus aimed at creating a novel interdisciplinary workforce, and network, of creative professionals each with complimentary knowledge and skill in both engineering and architectural design, who are better equipped to exploit the opportunities afforded by new technologies and methods. The need for this programme is evidenced in the paradigm shift that is taking place in the way our built environment is designed, procured, constructed and regulated. This
The Bartlett EAD Exploratory 2020

new 4-year integrated MEng programme in Engineering and Architectural Design is focused at preparing for this challenge in ways that are innovative, smart, adaptive, and imaginative. Set within UCL, the highest ranked university in the UK for research strength, this programme unites three of the university’s most successful departments in a pioneering academic partnership comprising; The Bartlett School of Architecture (BSA), The Institute for Environmental Design and Engineering (IEDE), and The Department of Civil Environmental and Geomatic Engineering (CEGE).

The Bartlett, the highest ranked faculty of the built environment in the UK (REF 2014), ranked 1st in the world (QS), and is also the largest faculty of its kind in the UK. The School of Architecture has also been voted Best School of Architecture in the UK for 14 years running by The Architect’s Journal. In parallel, CEGE’s innovative MEng in Civil Engineering is redefining the boundaries of engineering education. The success of its project-based learning and widening participation through dropping subject requirements whilst maintaining AAA entry standards has produced three out of five national New Civil Engineer 2015 professional prize winners. The MEng programme in Engineering and Architectural Design at UCL will thus offer unique strength and depth across world leading civil, structural, and environmental engineering, in combination with world leading architectural design. Academics and practitioners from all disciplines involved have come together to create this programme because of a shared ambition to deliver a unique and ambitious education leading to a new generation of built environment professionals in engineering and architectural design. Students with the appetite and skill to address open-ended challenges, will be expected to develop creative, propositional designs, and engineer structural and environmental performance in synthesis.

The rationale for launching this new programme also relates to UCL’s location in London and its unique proximity to many of the world’s leading consultants operating in the forefront of the field such as; AKT II, Arup, Foster and Partners, Feilden Clegg Bradley Studios, Buro Happold, Price and Myers, and Laing O’Rourke. The programme will be predominantly based in new facilities at Here East, Hackney Wick from 2017. Here East with a sequence of multifunctional and adaptable large-scale spaces. These extend from:

1. public/exhibition/foyer/conference/design studios, through to;
2. large volume collaboration hub for demonstrations/assemblies/and gatherings of variable scale, through to;
3. large volume fabrication hub for large scale manufacture and assembly, through to;
4. large volume research hub and laboratories for dedicated projects with environmental chambers at an advanced level.

Student experience and teaching delivery is centered on a combination of the design studio model that underpins the Bartlett Schools of Architecture’s renowned ARB/RIBA validated programmes with CEGE’s problem-based learning excellence. MEng Engineering and Architectural Design will bring these systems together in combination with the fundamental and rigorous instruction in structural and environmental engineering required for JBM and
CIBSE professional recognition. This unique mix, placing creativity and design at the centre of engineering education, will challenge conventional models, allowing students the opportunity to understand and develop advanced design methodologies whilst acquiring expertise on how they are augmented and resolved through engineering knowledge. Graduates will have the confidence, knowledge, expertise and creative propositional abilities to undertake the critical first steps of a project including brief development and design in a context of significant uncertainty, and to advocate their designs and engage in robust critical interdisciplinary discussion as they evolve. This will make graduates ideally well placed to deliver innovative design with progressive performance within a collaborative and organizationally complex industry. In parallel they will have opportunities to extend their engineering education with advanced course components in engineering for both civil and environmental design. To ensure that graduates are equipped with an internationally recognized professional qualification this programme is seeking to provide a fully accredited pathway for chartered engineer status and architecture Part 1 through JBM, CIBSE, ARB, and RIBA.

10 Commendations

10.1 The board commends the high levels of relevance and innovation in the aims and purpose of this new course. The opportunity to engage in an interdisciplinary course, opening up multiple and more diverse career paths, is an important addition to the architectural profession.

10.2 The board commends the high levels of collaboration and teamwork that have been established to make this ambitious course possible. This is already evident in the high levels of technical and architectural integration within the second and third year portfolios.

10.3 The board commends the commitment to the student experience and its responsiveness to the very challenging circumstances created by the pandemic.

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

11.1 The school should ensure that all documentation required for the RIBA initial visiting board is made available in accordance with the RIBA Procedures for Validation.

12. 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.

12.1 The school should consider refreshing the academic position statement to more accurately reflect the energy and ambitions of the course content and detail.
12.2 The school should work with the RIBA to agree how best to ensure that the course is clearly presented within the 2021 cyclical visit. This may require some additional explanatory information on how the course is delivered.

12.3 The school should ensure that the course continues to be self-critical and reflective as it evolves.

13 Delivery of graduate attributes
The Board confirmed that the MEng Engineering and Architectural Design (EAD) programme demonstrated the potential to meet the Part 1 graduate attributes if developed in the way anticipated.

14 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 confirmed that the MEng Engineering and Architectural Design (EAD) programme demonstrated the potential to meet the Part 1 general criteria if developed in the way anticipated.

15. Other information

15.1 Student numbers
year one: 70
year two: 48
year three: 36
year four: 24
current total: 178 students (2020-21)

14.2 Documentation provided
The School provided all advance documentation as required by the Procedures for Validation.

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

- Budget holder and course leaders
- Students
- Staff