

University of the West of England
Faculty of the Built Environment
Frenchay Campus
Bristol
BS 16 1QY

Confirmed by the RIBA Education Committee 17 September 2008

Report of the Exploratory Board Visit 23 April 2008
Proposed New Part One Programme – B.Eng in Architecture and
Environmental Engineering;

Membership of Board: Dr Robert Felix (Chair)
 Mr Tony Watson
 Mr Simon Gratton

Stephanie Beasley-Suffolk (Secretary)
Sarah Bedding (RIBA) attended the Exploratory
Board as an observer

**1. Recommendation of the Exploratory Board to the Education
Committee of the RIBA**

At its meeting on 17 September 2008, the RIBA Education Committee confirmed:

**Candidate Course Status for Exemption from Part One of the RIBA
Examinations of the B.Eng in Architecture and Environmental
Engineering**

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

2. Advice to the School

The Board thanks the staff and students for their kindness, hospitality and openness during the visit. The Board welcomes the development of this new programme, believing that it will provide for a focussed type of architecture, embedding a response to climate change from the outset. The contribution to the delivery of a single product from two sets of staff could prove very interesting. The Board anticipates that best students will be able to take on board and integrate both disciplines, resulting in graduates who will be able to decide whether to progress to Part Two but also will be able to work with contractors in allied disciplines. This would be a welcomed development in architectural education and a positive contribution to the profession.

The Board would like to bring to the School’s attention the following issues and queries, which it hopes will be helpful to the staff and students in the development of the course and towards achieving validation.

2.1 The Board shares the concerns of the NCCCG about the position of history and theory in the course. The Board advised that the Monitoring and Initial Board many wish to look at this.

- 2.2 The Exploratory Board strongly recommends that the School modify the third and fourth year design modules and submit them to the NCCCG for approval before the monitoring visit takes place. The Board advises the School to remain conscious of the proportion of architectural design to building engineering design. The School should prioritise architectural design rather than building engineering design in order to ensure that all students on course have the opportunity to demonstrate they meet the Part One criteria in Design
- 2.3 The Board would like more information about the process of the management and review of modules. The Board asks the School to ensure that updated module descriptors are lodged at the RIBA for information.
- 2.4 The Board noted that the School is intending to allocate staff to the course as it matures and that internal discussions will take place. The Board heard a variety of ideas about the way in which this might happen. The Board advises that the monitoring visit in the summer of 2009 will wish to pursue this.
- 2.5 The Board considered that the documentation was succinct and clear. The course documents are well co-ordinated and on the whole the Board understood the structure, content and method of delivery of the programme as far as had been established at the time of the visit. However, some outstanding queries remained about the process for reviewing modules to ensure they remain up to date and relevant. The Board considered that there was also some inconsistency in terminology in the documentation, with a mixture of QAA and university terminology.

3. Background

Inter-disciplinarity has always been regarded as a strength of the School and was commended by the Visiting Board in 2005. UWE has long experience of jointly validated courses (for example with RICS and the RTPI). When the School established its Architecture and Planning programme in the mid-1990s a decision was made not to offer single discipline architecture, based on the RIBA/RTPI concordat on interdisciplinary learning. The RIBA/RTPI jointly validated BA (Hons) Architecture and Planning programme has been running for 10 years and is now the largest undergraduate *planning* course in the UK.

The School decided to expand its activity in other areas, in particular concentrating on environmental issues. It is intended that the programme under discussion will be validated both for Part One and by CIBSE. Graduates would be qualified either to pursue a Part Two or work in the engineering field, as they wished. The idea evolved from the School's existing commitment to interdisciplinary teaching and its analysis of issues which it deemed were important. The School has perceived a demand for sustainability and environmental engineering graduates who also had a background in design and can bridge the gap between architecture and engineering. It anticipates that this will be challenging but achievable. The School also hopes that the programme will appeal to those who do not wish to study solely engineering and are attracted to architecture.

Staff believe that this qualification will give students an advantage in the industry and practice. Students will benefit not only from the academic knowledge and technical skills they will acquire in sustainability but also from the appreciation of the various

disciplines and their individual cultures that have to work together. The School's experience of teaching architecture and planning together has taught them that this can work very well in a School which is based in critical practice. The experience of teaching architecture, engineering and construction has made the staff aware that problematic issues tend to relate to practice.

The School is becoming more successful at bringing the two sides together in their academic experience and it is hoped that the new course will achieve a true synthesis. It is intended that strong contextual understanding will be embedded in the new course. There is already strong environmental interest and expertise among the present staff body, and the School wishes to build on this to create something unique.

The head of school and course leaders make an enthusiastic and supportive team. They were open, honest and responsive in their meeting with the Visiting Board. The management structure of the course and its position in the faculty and university are clearly demonstrated.

4. Course structure and content

The School believes that one of the strengths of the course is in the matching of the content of a CIBSE degree with that of Architecture and Planning. The B.Eng is a four-year course built around a modular framework. Architecture and Environmental Engineering are integrated from the beginning and cannot become a single award. The majority of the new course consists of existing modules, only a few modules being specific to the new programme. Most modules are shared with Building Services Engineering students or Architecture & Planning students. Some modules – for example the three interprofessional modules – will have students from across the faculty.

The first year is divided into two studios; Design Studio A and Design in Context. These studios are taught together but are separate for administrative reasons – they are shared with Architecture & Planning (A&P) and Architecture Technology & Design (ATD). Design Studio A is shared with A&P (but not ATD). The Board considered that the second year could be an exemplar course. Each year, years 2 and 3, students are able to choose from eight options in a six week joint studio known as the 'middle school' project.

For the first year, students are concerned with broad introductory investigation of the fields of architectural design and communication ranging from urban design appraisal to detailed design development. In the second year they will be considering a small building in context developed in detail and undertaking a housing project linked closely with the technology module. Next year the second year projects will include one investigating the history of the Severn crossings focussed on an interpretation building of around 2000m² in South Wales.

From the third year onwards BEng students will have their own studios, independently of Architecture and Planning, led by different studio heads. The precise relationship between the two groups will be decided by the respective studio heads. The School wishes to develop a clear identity for the new programme but also to facilitate synergies and reunion in context, hence the discussions about what precisely will differentiate one course from the other. However, B.Eng students will remain in contact with the planning students, sharing a dissertation module. Architectural complexity will be the same, but the Planning and Environmental Engineering elements will be separate. Staff from both courses will critique projects.

The School hopes that students on each programme will be informed and influenced by each other's work.

The School is presuming that the third and fourth year projects will have a similar complexion to the Architecture and Planning Years 3 and 4, but will be more conceptual and specialised. The work of these years will be concerned with developing the making of connections between studio work and supporting studies. There will be connections to the technical and history modules. It is anticipated that in the fourth year they will focus on one major, integrated project. This will have clear universal objectives concerned with the strategic technical thinking of a relatively complex building and a high level of technical resolution and environmental understanding will be expected. Engineering outcomes would also be delivered in that module. Students will be expected to deliver a report and a design. At the time of the visit no decisions had been made about fourth year projects, as these will be influenced by staff in post at the time.

The School will ensure that neither the Architecture nor Environmental Engineering elements of the degree have a dominant effect. Timetable adjustments will allow the School to increase CIBSE elements if needed or to conduct or customise studio teaching, as appropriate. The planning element of the new course will be identical to that of any architecture degree and but less extensive than in the Architecture and Planning degree. The planning element of the new course will be identical to that of any architecture degree and but less extensive than in the Architecture and Planning degree. The Building Services and Environmental Engineering elements will be interpreted in the context of a coherent sequence of design projects, the School's aim being to give students a rigorous (although not exhaustive) understanding of these elements. The School aims to weave technology into Building Design and are in continuing discussion with CIBSE about the content of the course. The School is confident that students will have the opportunity to meet the Part One Criteria in the fourth year.

4.1 Observations on potential to meet the criteria

- *Design criteria*

The Board was content that the 50% of the course would be devoted to design. If successful it could be an exemplar of good practice, driven by technology and environment as in Design Studios B (second year) and E (third year).

The Board considered that the studio set up could be interesting. It will never be a 'pure' architecture course, as for the first two years students are taught alongside Architecture and Planning students before the Environmental Engineering element is introduced in the third year. This may have an interesting influence on students' work. Overall, the Board was confident that students would be given the opportunity to meet most Part One criteria over the four years. They could see no particular issues with design strength, but at the time of the visit had little idea of the School's intentions in Years 3 and 4 as regards how students will meet the criteria in design. There appears at present to be no scope or framework. The Board noted that much of the course is still the planning stages and therefore still a theoretical construction. The Exploratory Board strongly recommends that the School modify the third and fourth year design modules and submit them to the NCCCG for approval before the monitoring visit takes place. The Board advises the

School to remain conscious of the proportion of architectural design to building design. The School should prioritise architectural design rather than building engineering design in order to ensure that all students on course have the opportunity to demonstrate they meet the Part One criteria in Design. The Board suggested that meeting management, practice and law criteria may be facilitated by the links with architectural practice.

- *Cultural context*

Students will be expected to deal with contextual matters and will study history and theory. At present Cultural Context is not specifically named in the modular structure but it will be covered, for example in dissertations. The NCCCG was concerned that the underpinnings of architecture do not appear until years 2 (History of Architecture) and Year 4 (Theory of Architecture). There is an element of history in the first year design module and evidence of cultural context in first year, and concern with place and space. History of Architecture will build on the Year 1 module Design in Context. This is already in Architecture and Planning and the new module called the Makings of Place but would not be taken Architecture and Environmental Engineering students. Formal teaching of history begins in the second year. The Board learned that there will be theoretical discussion in History of Architecture in the second year and cultural context element in 3rd year, for example within a field trip to Berlin. It is assumed that the new course will provide similar opportunities.

The Board shares the concerns of the NCCCG about the position of history and theory in the course. The School has not been specific about how history and theory will blend into the other modules The Board noted that their positioning in Architecture and Planning was different. The Board advised that the Monitoring and Initial Board many wish to look at this.

The University provides funding for field trips, which are embedded in many modules in Architecture

4.2. Course development

The module renewal process is straightforward and can be done on an annual basis through the modifications committee. The Board learned that the dates on the present documentation refer to the original date on which the module was approved. They are subject to a continuous six-year cycle of review and the dates do not reflect annual modifications. This is to allow for fluidity, but also to protect integrity. The Board would also like more information about the process of the management and review of modules. The Board asks the school to ensure that updated module descriptors are lodged at the RIBA for information.

4.3 Progression and exit awards

It will be possible for students to transfer to other courses, but not Architecture and Planning as students will have missed two years of planning study. The first year of the new programme is deliberately challenging. The School acknowledges that it will be difficult, but believe that if successful after the first year a student should be successful throughout. The School believes that it is better to decide earlier on whether the course and a student are suited to one another or not. Students will be eligible for the award of Bachelor of Built and Natural Environment if they have obtained 360 credits as an exit award. It may then be possible to obtain Part One

through the prescribed examination. Resits are permitted but there is no compensation.

5. Recruitment/Admissions

The School understands that it will be in competition with other schools to attract good students. Entrants will be required to have minimum AS level maths, preferably A level maths. The Board considered that it may be difficult attracting appropriately qualified students. The School recognises this as a challenge. Its success in attracting high quality candidates to its architecture and planning programmes gives it confidence that the same can be achieved for the B.Eng. There is a centralised University entry system but the School would expect to interview 'unusual' candidates. At the time of the visit the School had received 35 applications for the 2008/2009 entry. The Board and School noted that initial cohorts on new courses are willing to embark on programmes that have not yet received professional recognition and are instrumental in shaping and defining new programmes.

At time of the visit 70 students were enrolled in the first year of the Architecture and Planning course. There were 35 in fourth (final) year. Cohort sizes have increased gradually from approximately 55 at the beginning. The University is working to reduce its withdrawal rates. The current withdrawal rate is 9% which, on the whole, is respectable.

6. Student Meeting

The Board was pleased to meet the first cohort recruited to the B.Eng programme. At the time of the visit, seven students were studying on the new programme. The students were forthcoming, honest and open and the Board was impressed by their energy and attitude. The students clearly had confidence and trust in the institution, had belief in and ownership of the course and were looking forward to discussions with staff about the shape of the third and fourth years of the programme.

Students were attracted to UWE by the reputation of the University, its location in Bristol, and the broad scope of the course itself, offering both architecture and engineering. Some of the cohort had originally intended to study planning, but had been encouraged to consider the B.Eng by the School. The environmental bias was the key factor for other students. One student studied architecture and planning for one year and then transferred. Students come from a wide variety of backgrounds. The insistence on hand-drawing at the beginning of the course, allowing students with more technical backgrounds to develop their skills, ensures a level playing field. Students were frank about the challenges presented by being the first cohort on a new programme with joint specialisms. It had lived up to their expectations both by being hard work and also very enjoyable. There were some initial timetabling and module problems but these were resolved. The art side of the programme was inspiring; the engineering side considerably more challenging, but students were confident that overall they would be able to attain the standards of the current third and fourth year Architecture and Planning Students. The school was sociable and it was easy to get to know everyone. Communications between staff and students are good, facilitated by the size of the cohort.

Students were content with the resources, considering that there was still sufficient space despite the rising numbers. IT facilities were considered good. Students were also content with the level of staffing and access to staff.

There is a student society, which is chiefly concerned with social events but also invites guest lecturers to speak. There is a student representative council. From the present cohort six will progress to Year Two.

7. Staff Meeting

The Board found the staff to be open and honest, enthusiastic and committed, clearly seeing the opportunities and challenges presented by the new programme. There is evidence that they work well as a team. The newly appointed course leader is an engineer who works closely with the staff as a team and has been open-minded about the limits of the course. There appears to be no conflict of approach.

Staff believe the new programme will offer opportunities and possibilities for existing staff. This might involve connections with other programmes, for example, there the possibility linking specialised knowledge with the B.Arch Part Two programme. There are existing and developing links with practices, with students already being employed locally. The School also enjoys strong links with engineering consultancies.

Staff were well informed about the programme and its aims and objectives. They were excited by the possibilities for research it created. However, the Board considered that there remained some lack of clarity about the delivery of the course. Complete understanding of mechanisms requires staff involvement, co-operation and debate. The Board considered that the School needed to widen debate to be inclusive and transparent.

The Board noted that the School is intending to allocate staff to the course as it matures and that internal discussions will take place. The Board heard a variety of ideas about the way in which this might happen. The Board advises that the monitoring visit in the summer of 2009 will wish to pursue this.

8. Resources

The RIBA is familiar with the resources enjoyed by Architecture and Planning students at UWE. The University is clearly committed to enhancing the already impressive facilities with the plans for the new building. The last full Visiting Board to the established Part One and Part Two programmes took place in 2005. The Board praised the “Excellent library resources linked to learning in the School and impressive support provided for their use” and the “excellent physical resources to support teaching and learning, especially the impressive new Studio Building and the well-equipped specialist laboratories”. Among the impressive facilities are a new laser cutting machine, a wind tunnel and an artificial sky.

The University is committed to the evolution of courses and keeping resources commensurate with numbers and breadth of activity. Resources are allocated by the faculty. There are five faculties in the University. Following recent restructuring, the Faculty of Environment and Technology is divided into two schools—the Bristol Institute of Technology and the School of the Built and Natural Environment. The latter is made up of four departments of which one is the Planning and Architecture.. This course is within the dept of Planning and Architecture. Programmes are ‘owned’ by the faculty but teaching managed by dept. One particular benefits of being in a big faculty is student access to specialist labs, specialist software, technicians and experts in a range of skills.

The School is planning an extension which will double the size of building and include new studios. This should be finished in academic year 2010/11. In the planning,

assumptions have been made about recruitment into new course and other projected courses (for example, landscape). The calculations for size have been based on based on existing numbers of students and ambitious growth in various areas. It is anticipated 20-25 new staff will be needed in the next three to four years as the design related courses and post graduate programmes in the faculty expand. The staff reported that sensible requests for additional resources are usually honoured. New building will have suites of rooms to allow for variations in teaching. Increasingly, students are working on laptops so this has caused a rethinking of strategy for the new building and IT resources, leading in all likelihood to a focus on output equipment rather than hardware and software. The new building will also contain lecture space. It is anticipated that Product Design will also move into the existing building. This will allow them to enlarge the workshop.

9. Documentation

Prior to the visit the School supplied a complete programme specification.