
Royal Institute of British Architects

**Report of the RIBA visiting board to
Universidad Nacional de Ingeniería**

1 Details of institution hosting course/s **(report part A)**

Universidad Nacional de Ingeniería
Avenida Túpac Amaru 210
Lima 25
Apartado 1301
PERU

2 Head of Architecture Group
José Luis Beingolea Del Carpio

3 Course/s offered for validation
Bachelor of Science in Architecture

4 Course leader/s

José Luis Beingolea Del Carpio	Dean of the faculty
Rosario Pacheco Acero	Director of the School of Architecture
Miguel Vidal Valladolid	Director of FAUA Graduate Unit
Manuel Ferreyra Luque	Office of Quality and Accreditation
Víctor Yáñez Aspilcueta	Computer Center
Brenda Torrejón Estrada	Library

Directors of Academic Departments:

Carlos Fernández Dávila Anaya	Architectural Design
Viviana Shigyo Kobayashi	Urbanism
Elvis Martínez Reyes	Basic Sciences
David Rayter Arnao	Technology
Susana Rossi Chang	Graphic Expression
Carlos Guzmán García	History and social sciences

5 Awarding body
Universidad Nacional de Ingeniería

6 The visiting board

Nick Hayhurst	practitioner/academic/chair
Negar Mihanyar	practitioner
Peter Culley	practitioner
Architect Manuel Zubiarte	regional representative
Sophie Bailey	RIBA validation manager

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.

8 Recommendation of the Visiting Board

On the 19 October 2019 RIBA Education Committee confirmed that the following course and qualification is validated with conditions:

Bachelor of Science in Architecture RIBA Part 1

This proposal will be submitted to the RIBA Education Committee for ratification, and subsequent notification to RIBA Council.

Re-evaluation of the student portfolios by means of a revisit by a sub-group to consider the faculty's response to the conditions will take place on a date agreed between the faculty and the RIBA.

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

(Statement written by the school)

The beginning of the academic identity

The Faculty of Architecture, Urbanism and Arts (FAUA) shares the principles and purposes of the Universidad Nacional de Ingeniería (UNI), the oldest and most important technological institution in the country and, at the same time, evidences its historical evolution.

Its initial orientation (1910) was positivist in the old Escuela Nacional de Ingenieros (ENI), then it had an important turn towards art from the modern reform of education (1946), which was strengthened when the avant-garde managers of that reform, assumed the direction of the institution between 1962 and 1967.

Almost parallel to the above event it occurs the convergence of the urban discipline, particularly since 1951, when the Institute of Urbanism created outside the academy seven years earlier, was integrated to the Department of Architecture and derived in 1962 as Institute of Planning of Lima (IPL) becoming an entity of continental character and scope through the agreement with the Organization of American States (OAS) and Yale University (USA). In this way, the current FAUA developed in its historical development the urbanism and planning carried out at the post-graduate level in 1951 and 1962 respectively, the latter continued in 1986, when the post-graduate and second specialization sections were created.

Historically, the current faculty began in 1910, as a Section of Architects builders in the original Escuela Nacional de Ingenieros (ENI), in 1942 it became the Department of Architecture and in 1955 when the School passed to be a University, into Faculty of Architecture. It was in 1986 that it adopted its current name (FAUA), integrating urbanism and art (FAUA), giving legal status to its historically gestated content. These facts explain its unique and singular profile in the heart of the country's technological institution, which is distinguished it from the set of academic institutions dedicated to educating architects in the country.

This explains the convergence of its scientific-technological, socio-economic and humanistic-artistic orientation, as the first academic institution that forms architects in the country and thanks to its tradition of quality, it has become worthy of national recognition.

This potential currently serves an educational community of 950 students and 140 teachers with a ratio of one teacher for every seven students, that is, it allows personalized attention with positive results, exceptional in the country.

The formative structure

The training in the FAUA takes place in 10 semesters (cycles) and is organized into our levels: basic, formative, pre-professional and degree. According to the report of the Exploratory Commission of the RIBA, the correspondence of the Part 1 is recognized at the end of the eighth semester of the career, that is, at the end of the pre-professional level, before beginning the thesis by carrying out a research project and in parallel an architectural design project in the 9th and 10th semesters.

The objective of the basic level, is to provide students with knowledge of the sciences and humanities related to the discipline of architecture, in order to develop the intellectual structures that support the skills for the formulation of their design proposals in the same level. These exercises allow students to identify the basic concepts of architectural design and apply them to objects, managing the sense of scale, the composition, the structure and the organization of simple functions. As a result, students develop as human beings in their different dimensions (physical, emotional and functional), developing an inquisitive and investigative attitude that allows them to apply their experiences in the design process.

The objective of the training level is to develop skills for integration in the architectural project of structural design, construction and environmental technologies, as well as the urban and cultural context. Students acquire and apply concepts of function, spatial organization, relationship with the environment, use of precedents and commitment to social needs, applying their creativity to the design of architectural objects of progressive difficulty, with programming of intermediate complexity. Design exercises at this level allow to strengthen the application of aesthetic criteria, composition and architectural expression. These exercises develop skills to conceptualize and complete a comprehensive program of collective housing, social facilities, museums, hotels and similar projects, in order to identify the essential factors of the cultural and urban context, developing a critical and conceptual design approach, strengthening the creative and argumentative skills, and valuing the importance of the transformation of the human space. This achievement is expected to culminate at the end of the training level, through the development of a comprehensive architectural design proposal in the fifth semester.

The objective of the pre-professional level involves the stage in which students demonstrate their achievements, creativity and skills for the approach and development of architectural designs in real scenarios. Conceptualizing, analyzing and constructing contemporary design strategies, recognizing the characteristics of natural and urban landscapes, and evaluating those parameters that make a building part of

a broader environment, students finally investigate, propose and develop the project according to needs of infrastructure construction of a city sector. The achievement of this stage is the development of its own program of projects at different levels of complexity, determined by a specific economic, social and cultural environment, and with responsible intervention.

The objective of the level of degree, is oriented to obtain the architecture diploma. In this stage the student formulates and develops a final project (thesis) which is reached following three different entries:

- From context to problem-architectural need,
- From the architectural need to the ad hoc location, or
- Empathy with a place that is converted into a leit motiv for the search for architectural identity, the site and the object.

Whichever is the key to the topic of the project, it leads to an architectural program and a location that leads through the pre-project, preliminary project and architectural project also formulated through a multidisciplinary coordination (engineering), it seeks to be consistent and with a professional level. This requires an additional year (two semesters) of training, developing the degree project and a research report, under the guidance of the academic advisers assigned to each case. In general, the process to finish the documentation of the research and the elaboration necessary for the final presentation takes the student more than one year, being provided according to the need and interest of the student, the adequate advice during the remaining period.

As evidenced by the curriculum included in the Plan of Studies formulated in 2007 and with updates in 2014 and 2016, the main academic task of the FAUA is the teaching of architectural design, which seeks to understand the form built not only with a decisive role in the physical, functional and symbolic configuration of the city or in the specific cultural architectural context.

Being a public institution financed with the state budget, there is a commitment to the national problem that starts from self-recognition as an ancient millenary society and its development inscribed in the western civilizatory process that gives rise to its multi-ethnic character. There is also a recognition of the exceptional mega diversity of its territory.

This identity, until recently was ignored because of the influential processes of expansion and domination of international hegemonic centers recently translated into global society and whose consequences generate architectural mimesis, accentuated and strongly strengthened by the centralized nature of the country, which makes Lima an inappropriate model for the rest of the country. For this reason, assuming the identity of the country has been one of the most productive stimuli in the academic space and in the national culture, as evidenced by the history of twentieth-century architecture that registers a constant intermittent trend and with ups and downs in its transcendence, around the search for an appropriate architecture. However, the aforementioned identity factors have reached a level of consciousness only in recent decades and are the main motivators of changes, but in a time of globalization, they must also

integrate the great contributions of time and space in the integrated contemporary world.

The urban issue in Lima had an epic period around the neighborhood as a relevant experience, interpreted and disseminated internationally by the Englishman John Turner. This valuable experience today passes through a crisis that began in the last decade of the century that challenges and demands the discipline of urbanism and urban design, a critical and refreshing attitude. But the very urban character of current and future society imposes a work of greater breadth and depth that has been assumed with greater emphasis in the formulation of the new curriculum recently developed. Now, economic development goes hand in hand with technological and productive development.

The recent economic boom of the country should have allowed this to achieve greater democratization and equity that reaches the urban and rural borders of the country. Task, however, still pending. For that reason, other academic objectives are to articulate the design, the urban scale, the urban context and the proper management, adoption, adaptation and creation of appropriate technologies that are part of the architectural training.

The creation of the FAB LAB in 2010, with the decisive support of AECID (Spanish Cooperation), went through a very vital and strongly international foundational stage, including the Fab Academy held until 2015, in which the accompaniment of international cooperation was decisive. In the stage of management entirely local, the FAB LAB has concentrated on integrating to the Faculty and the University. There has been an update of the equipment in 2017. Walter González Arnao, a FAUA teacher researcher-designer (architectural and industrial) integrated to the FAB LAB has managed to consolidate international recognition, through his main search, the integration between technology and popular art or traditional, historical and contemporary. Its design and digital manufacture of the traditional artisan weaver, is now internationally recognized, thanks to the Ibero-American digital design and manufacturing prize obtained in 2012.

On internationalization

Internationalization is also an objective, so that the architect's education is updated and they also acquired and developed skills (emotional intelligence), in addition to the practice of languages and also to prepare him to perform globally.

External evaluators

The strengthening of the internationalization office is a priority for this year, preceded and accompanied by the work of the accreditation and quality office, which was organized between 2015 and the present, the invitation to 5 teams of evaluators, 3 of them international. The last of these was entirely with guests from the South American RIBA community (Argentina, Colombia and Chile) especially complemented for a colloquium aimed at exchanging experiences on internationalization, which sought to lay the foundations for the creation of the FAUA network and make the leap to systematic mobility of students and teachers.

International Workshops

In this regard, the FAUA, following a secular tradition, first prioritized the strengthening of links with European foreign schools, as has happened with the experiences carried out by Workshop 6 with the University of Brescia, Italy, in the second semester of 2015 and the second of 2017 that included not only the works of that workshop, but also originated End of career projects with topics located in that city.

Membership in the RIBA community has allowed them to participate in some of their activities, in particular POLYART (or POLIARQ), in its last two editions (2013-2015), (2016- 2018), for which two workshops ad hoc were organized. On both occasions the idea is to motivate workshop participants and others interested in attending the final section of the event, which ends this year will include a Nor European architectural tour structured by the Chairs of History and criticism.

The Workshop on "Urban resilience in Barrios Altos", in partnership with the UCL (London) in the summer of 2016. In the summer of 2017 the workshop on urban equipment was held in the popular city (UPIS "Huáscar", San Juan de Lurigancho) in coordination with the University of Stuttgart.

International events

The international events already outlined in the previous report submitted for accreditation, have continued with the following:

- International meeting dedicated to "Urban Mobility" (2015), organized by the "Urban Mobility Platform" of UNI, through FAUA, with international experts from Europe and Latin America.
- Three editions of the diploma on "Basic Habitability" the third carried out in 2014 with the concurrence of specialists from the Polytechnic University of Madrid.
- In December of the same year, the International Meeting on "Architectural Challenges and Trends on the Contemporary Stage" was held with European and local guests.
- In November of this year, the "2nd International Congress on Research in Architecture and Urban Planning" is scheduled, organized by the Research Institute (INIFUA) with the collaboration of the Andean University of Cusco in that city.

International competitions

In this same line of work, a relevant experience of internationalization and also multidisciplinary is the house AYNI, designed and built by a team of students of architecture and engineering (civil, environmental, economics, mechanics) gathered in the same group name, participated successfully in the SOLAR DECATHLON LATIN AMERICA AND CARIBBEAN SOLAR COMPETITION for sustainable design whose final exhibition was held in Cali, Colombia (2015), where 10 finalists were selected, selected from several dozens of participants from around the world. The assistance of the FAB LAB in the construction of the prototype that was taken to the exhibition fair was an important experience that this year is reissued under the same conditions with the design and construction of the JÁTI prototype, which will participate in the new edition (2018 -2019) of the aforementioned event, in which that project was already selected.

As technological tools for design, the FAB LAB and computer applications in 2D and 3D are promoting different ways of approaching the architectural space. Thus, the new installed technologies facilitate the simulation, modeling and project experimentation allowing various alternatives for architectural design that encourage creativity and imagination. The FAB LAB is also integrating courses such as Technology (Construction seminar) and Art (furniture design) as well as assisting the different design workshops. This has demanded the voluntary training of the students in the management of those equipment. As part of the best and most planned integration of the design to the digital world, from 2018-2019 a digital workshop will begin to operate, where space is being prepared to receive 40 already acquired equipment and which will have as star teams the FAB LAB members. This laboratory is also collaborating in projects of other specialties, such as the manufacture of the dodecahedral dome used to celebrate "The day of Astronomy", organized by a student collective of the Faculty of Sciences.

Contextual bias

There is a clear bias in the input used in the Design Workshops: the urban context is contemporary as historical, cultural as natural and that is also addressed in other courses, as well as history, in technology and urbanism that seek knowledge and mastery of tools concepts and methods necessary to understand precedents and urban, local and territorial circumstances. This understanding allows to integrate such knowledge in the design project. The subject of the historical and contemporary popular city, has entered mainly in the research workshops of architecture, urbanism and technology. The specific courses of Peruvian architecture include the understanding of the architectural identity and the importance of the preservation of the urban and architectural heritage, taking into account its nature, function and meaning in shaping the contemporary context in which they are immersed.

The competences in architectural technology (structures, construction and environmental control) given at the training level of the curriculum have been strengthened with the approach of sustainability that involves these three components, having been integrated more in the last two. In this area, during the last years a constant effort has been deployed to adopt subjects of sustainable development in the courses of bioclimatic architecture and its application in the projects of the design workshops has been refined by integrating to them the specialized chairs of those courses, especially in the 5th level. In construction, the issue of recycling and experimentation with traditional technologies and materials are also part of the concerns about sustainability.

The extracurricular academic collectives and the co working

In the last five years we have witnessed the slow and sustained development of groups of students who join together for common interests and undertake parallel work to academic activity, especially outside the university campus. Their concerns range from public space, collective equipment and urban management tools, all of them inserted in the popular city, or the mesocratic city of the north mancomunidad, where the campus is located, the MODULO and ARQUITMO groups are a good example.

The design in technological key was the sign of the success of the two FAUA collectives that won the PROYECTA competition on innovation in its second edition of 2017, obtaining the 1st and 3rd place. "The peasant housing for the puna" and the "Structure for the house of popular housing settled on slope", demonstrated the interest and the capacity of our students to apply the design to urgent and massive situations, both in the countryside and in the city. There are also other groups that cultivate some cultural or artistic hobbies: FAUA Cultural group (popular dance), FAUA Sketch group (drawing).

The group AYNi, already mentioned above, exemplifies co working and is part of this same trend that thrives in a scenario in which social networks have not only changed but also facilitated collaborative work.

Added to the traditional ones, thanks to all this set of activities, competences are developed that contribute to the student's inclusion and allow a development of integral design solutions. The final implementation of these objectives will develop a global understanding of the world as a context for local architecture and urban design.

11 Conditions

The following conditions of recognition apply:

- 11.1 The Board found insufficient evidence that General Criteria 5.2, 8.1, 8.2, 8.3, 9.1 and 9.2 were being met in the Technology modules at 'Formative Level' and insufficient evidence that General Criteria 9.3 was being met in the design portfolios in the 'Professional Level' (as mapped by the Faculty). The board requested supplementary evidence on the first day of the visit which, when presented, still did not meet the criteria. The board noted that the work undertaken in the 'Research Workshop in Technology' module (in semesters 9 and 10) was sufficient to meet the criteria noted, however this is an optional module and it is possible for a student to graduate without having met all the of the General Criteria for Part 1. The Faculty must provide a mapping document that clearly illustrates in which module, and with which element of academic work, each of the RIBA Graduate Attributes and General Criteria are fully met.
- 11.2 The Faculty must make portfolios containing the full range of students' achievements available to the RIBA Visiting Board. An academic portfolio contains all assessed work produced by a student in modules where the RIBA Graduate Attributes and General Criteria are met. (as noted in clause 4.7 of the RIBA Procedures for Validation).

Revisits (page 37 of Procedures document)

where the revisiting sub-group is satisfied the conditions in the report have been met, the RIBA Education Committee will recommend validation without conditions until the next scheduled visiting board (i.e. 5 years after the last full board visit)

If after considering new work at the revisit, the sub-group is not satisfied the necessary improvements have been made, a full board will visit the faculty usually no more than 12 months after the revisiting sub-group; **this will result either in continued validation or withdrawal of validation**

If no revisit is agreed with the faculty within 3 months of the RIBA Education Committee ratifying the final version of the visiting board report requiring a revisit, **validation will be withdrawn.**

12 Commendations

The visiting board made the following commendations:

- 12.1 The Board commends the Faculty's ambition to integrate fine art and address the regional economic, political and societal issues through a commitment to emerging international architectural trends and research as articulated in the Academic Position Statement and the comprehensive 'Mission Statement' included in the RIBA documentation.
- 12.2 The Board was impressed by the articulate student body and their determination to make the most of their learning experience.

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. 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 was shown a new curriculum that is to be implemented in January 2019. The Faculty must ensure that the RIBA New Courses Group is notified of any changes to course structure and/or content. Documents should provide a synoptic overview of the rationale for the changes to the course along with clear comparisons made between the existing course structure/ content and that proposed.
- 13.2 There must be evidence of a comprehensive design portfolio in the design modules. This must include the full range and extent of work carried out including demonstration of critical thinking as well as the final architectural design. This should, for example, contain site research and analysis, design investigations and design development work in addition to a final set of architectural drawings/ models. (as noted in clause 4.7 of the RIBA Procedures for Validation).
- 13.3 The Faculty must develop a robust quality assurance system that provides students with formative and summative feedback for each module. These should be coupled with clear grade descriptors that establish a qualitative measure as to how student work is assessed.

14. 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.

- 14.1 The Board advises that all students at the 'Professional Level' are supported with specific structural, construction and environmental engineering expertise in order to ensure that aspects of technology are fully integrated into the design project (GC 9.3).

14.2 Whilst the board has commended the aspiration to engage with fine art and the regional economic, political and societal issues through a commitment to exploring emerging, international architectural trends, there is only rudimentary evidence of the application and testing of these ambitions in the student's own design work. (GC 3.3, 4.3)

14.3 The Faculty should further develop their procedures for external examining. This should include a review of briefs ('rubrics') and the full academic portfolio that includes both design work and non-design modules ('courses') by a number of independent academics and practitioners. Examiners should be able to assess work across the ability range and form a holistic assessment of the student experience and then formulate their findings into a report that is disseminated to course and quality assurance that the Faculty respond to. We recommend that examiners serve for a number of consecutive assessment cycles to enable a form of continuous monitoring, feedback and improvement of academic standards.

14 Delivery of academic position

The academic position statement does appropriately address the identity, structure and international aims of the faculty. However, the board thought that the *Mission and Guiding Principles* section of the documentation clearly defines a set of aims and strategic plan that could be used within the statement.

15 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

Please see condition 11.1 and 11.2

16 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.

Graduate Criteria for Part 1

Please see condition 11.1 and 11.2

17 Other information

17.1 Student numbers

The faculty of Architecture, Urbanism and Arts of the UNI has 960 students.

17.2 Documentation provided

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

18 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.

***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**
- **Head of institution**
- **External examiners**
- **Staff**