Universidad Europea de Madrid
School of Architecture

Visiting Team Report
Visit Three for Substantial Equivalency

Master's Degree in Architecture [prerequisite: Bachelor´s degree in Fundamentals of Architecture + 60 credits]. Professional degree

Bachelor's Degree in Fundamentals of Architecture [freshman admission + 300 credits] Pre-professional degree

Bachelor's Degree in Architecture [freshman admission + 300 credits] Professional degree

The National Architectural Accrediting Board
November 2–5, 2014

Date of visit two: November 2013

Vision: The NAAB aspires to be the leader in establishing educational quality assurance standards to enhance the value, relevance, and effectiveness of the architecture profession.

Mission: The NAAB develops and maintains a system of accreditation in professional architecture education that is responsive to the needs of society and allows institutions with varying resources and circumstances to evolve according to their individual needs.

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I. Summary of Team Findings

1. Team Comments and Visit Summary

The visiting team was welcomed to the school (and the city) with great enthusiasm and dedication to the task of the NAAB review, where substantial equivalency is seen as an important part of a larger strategy to position the program, the school and the university positively and internationally. We greatly appreciated the attentiveness of the school community to this enterprise, as well as the responsiveness of the school and university leadership to our questions. The team room and exhibits were exceptionally well organized, and we found the students, faculty, administration and staff to be warm, open, and appreciative in all of our encounters.

This was the third of a series of three visits (begun in 2012) to assess the conditions and outcomes of the School of Architecture at the Universidad Europea de Madrid, from which the NAAB Board will determine whether to grant initial determination of "substantial equivalency." As such, the team found it useful—even essential—to consider the architecture program within multiple contexts:

- NAAB Conditions for Accreditation and Substantial Equivalency

- The Spanish system of higher education

- The local condition of architectural education and practice within the Madrid region

- The Laureate group's international network of private, for-profit university education

- ● The international context of architectural education and practice, within which the NAAB is playing an increasingly significant role.

The NAAB Conditions for Substantial Equivalency were updated/revised in 2012, and the 2013 Conditions vary from the 2009 Conditions in important ways—notably, the elimination of the 3-year initial term, and the elimination of the annual reporting.

The Spanish system of higher education is comprehensive and recently changing, closely prescribing the structure, nomenclature of degree programs, along with expectations for faculty credentials. UEM was established as a Laureate International University at a time of significant changes for higher education in Spain and the European Union. In response to recent demands, the architecture program has undergone three significant iterations in its short 14-year history.

The most recent redesign (implemented in 2011) resulted in the current 5+1 professional curriculum, terminating in a Master's Degree in Architecture, which is the new minimum standard for architecture education and professional practice in Spain. The previous two iterations—in 2000 and 2008—offered professional qualifying degrees at the bachelor's level. This history led to the current situation, where three curricular tracks are running simultaneously. The third track (5+1) is the only one expected to survive through the next visit; however, it is in the fourth year of implementation.

Only the first three years of student outcomes were available for this review, which was supplemented by outcomes of students enrolled in the 2008 curriculum. To further complicate things, the professional program is delivered in both English and Spanish—first as parallel tracks, and since 2011, all students have the option of taking individual courses in either language (see chart below).

CALENDAR OF IMPLEMENTATION OF ARCHITECTURE CURRICULUMS

	08-09	09-10	10-11	11-12	12-13	13-14	14-15
B2008_SPANISH	1º	2º	3º	4º	5º		5º
B2008_ENGLISH			1º	2º	3º	4º	5º
BF2011 SPANISH AND ENGLISH				1º	2º	3º	4º

2.   **Conditions Not Met**

   A-7. Use of Precedents

3.   **Causes of Concern**

   A.   Curriculum Transition. The 2011 curriculum—Bachelor's Degree in the Fundamentals of Architecture + Master's Degree in Architecture—is in the start of its fourth year of implementation as of visit three, and so the one-year M Arch curriculum has yet to be fully implemented (with the exception of a single advanced transfer student). Therefore, there was no evidence of outcomes available for review in visit three (November 2014), though the team assumes that the critical outcomes (from the Master's Graduation Project) will be equivalent to those of the 2008 Bachelor's Degree in Architecture curriculum Graduation Project.

   B.   Term of Initial Substantial Equivalency and Annual Reports. With adoption of the 2013 Conditions, the NAAB no longer requires Annual Reports from substantially equivalent programs. The 2008 Bachelor's Degree in Architecture program is being phased out and will be fully eliminated by the time of the program's next visit in 2020 (NAAB also

eliminated a mandatory visit in the third year following initial substantial equivalency). While the team finds the 2008 B Arch program to be substantially equivalent to accredited programs in the U.S., the team wonders whether/if the M Arch program can be deemed so at this time.

4. **Progress Since the Previous Site Visit**

- Facilities—shop, space for collaborative work—RESOLVED
  The schools "FabLab" has been developed and expanded, now boasting three 3D printers, 2 laser cutters, and 3 plotters, in addition to basic tools for making physical models. In addition, the program benefits from its alignment with engineering and fine arts programs—the team observed materials testing labs, sculpture and painting studios within the same building. Architecture students are able to use these facilities within available architecture, engineering, and visual arts courses.

- **Faculty Development**
  Since recent Spanish Law requires that university faculty hold doctorate degrees, many program faculty members are pursuing PhD's. Some are taking advantage of UEM's tuition remission benefit to complete their degrees here. The AIRLab offers a shining example of increased research activities at the school, engaging program faculty and students, under the direction of Dr. Jose Luis Esteban Penelas. Faculty are provided shared office space on the upper floors, along with smaller conference rooms for private/sensitive advising meetings.

- **Financial support for students**, especially for travel opportunities
  More support now, though limited compared to US programs. They have established an annual trip for second year students to a nearby city abroad with all expenses paid by UEM. The first was last year (to Berlin), which achieved great support from both faculty and students.

- **Limited amount of general studies**
  General studies covered and assessed by tertiary school system ("bachillerato"). The broad curriculum of this tertiary school is mandated by Spanish law and competencies verified by strict testing prior to acceptance in a university program.

- **Accessible campus**

Still the same. Would not satisfy the spirit of ADA. Signage, accommodations, and access for wheelchairs to buildings seem to be a challenge. Likely complies with requirements in Spain, though these are also changing. An effort was made to improve accessibility by installing some ramps, automatic door operators and an external elevator.

I.1.1 History and Mission: The program must describe its history, mission and culture and how that history, mission, and culture is expressed in contemporary context. Programs that exist within a larger educational institution must also describe the history and mission of the institution and how that history, mission, and culture is expressed in contemporary context.

The substantially equivalent degree program must describe and then provide evidence of the relationship between the program, the administrative unit that supports it (e.g., school or college) and the institution. This includes an explanation of the program's benefits to the institutional setting, how the institution benefits from the program, any unique synergies, events, or activities occurring as a result, etc.

Finally, the program must describe and then demonstrate how the course of study and learning experiences encourage the holistic, practical and liberal arts-based education of architects.

Visit Two Team Assessment:
The Universidad Europea de Madrid began as the Centro Europeo de Estudios Superiores (CEES) (European Center for Higher Education), a university college affiliated to the Universidad Computense de Madrid. It was established as a private, for-profit institution in 1995, and subsequently acquired in 1998 by the Sylvan Group (now Laureate International Universities). UEM is one of 50 international institutions in the Laureate network, and leverages that position to offer its students and faculty international perspectives and opportunities for study, research and practice.

The School of Architecture is one of seven schools at the UEM. With medicine and law, the profession of architecture is among the three most respected in Spain. Correspondingly, administrators consider the architecture program to be a key constituent of the university community. The ability to offer dual degrees (Architecture + Art and Architecture + Design) is one among the many ways in which the greater university and the architecture program are mutually engaged in the education of students.

The following requirements affect all professional architecture programs in Spain: Upon entering the European Union, Spain adapted its existing university programs to conform to the European Higher Education Area (EHEA). The Bologna Declaration, published in 1999, led to a number of Spanish regulations including Royal Decree RD55/2005 that modified the previous requirements for professional education in architecture. The conditions set forth by that decree devalued the extant architectural degree. It was subsequently modified by RD861/2010 and law EDU/2075/2010 to change the minimum educational requirements for a licensed architect in Spain to be the Master of Architecture. The change in degree streams currently in progress at the UEM is the result of these new national requirements.

In Spain, graduates of professional programs in architecture are immediately empowered to practice the profession without prior internship or professional experience (the only additional requirement is registration with the local Colegio de Arquitectos). Beginning in high school, education focuses on students' subsequent professional choices. University admissions, which are highly competitive, are linked to student performance on examinations that require proficiency in subject areas designed to prepare students for rigorous professional training. As a result of this deliberate focus, the architectural curriculum prescribed by Spanish law is very technologically strong. While producing some remarkable results, this choice limits the opportunity of university programs to also deliver instruction in the liberal arts. Therefore the UEM program does not meet the NAAB requirement of a "holistic….liberal arts-based education." (See also: II.2.2 Professional Degrees and Curriculum)

> **Visit Three Team Assessment**:
> *The NAAB develops and maintains a system of accreditation in professional architecture education that is responsive to the needs of society and allows institutions with varying resources and circumstances to evolve according to their individual needs.*
>
> The mission of the NAAB suggests that accreditation (and Substantial Equivalency by extension, and perhaps in particular) is to some degree contextual.

Program administrators, professors and students coincided in relating the story of a School of Architecture that while responding to the very structured requirements of the Spanish Law, looks outward to position itself as a unique and attractive alternative for students interested in developing within an international context. It relates to the Madrid urban context and its professional institutions and traditions, but also provides connections to the U.S. by pairing with the New School in San Diego to offer a dual program that could potentially allow architectural practice throughout all American and European jurisdictions. It shows its students' work at CentroCentro, a principal cultural center in Madrid housed in the Cibeles Palace, and also takes all of its second year students on an annual field trip to Berlin. And finally, it singles itself out by offering bilingual access to all its courses.

I.1.3A Architecture Education and the Academic Community: *That the faculty, staff, and students in the substantially equivalent degree program make unique contributions to the institution in the areas of scholarship, community engagement, service, and teaching.[1] In addition, the program must describe its commitment to the holistic, practical, and liberal arts-based education of architects and to providing opportunities for all members of the learning community to engage in the development of new knowledge.*

Visit Two Team Assessment: The provision of dual degree programs that bring together expertise from across the university community; close collaborations with the profession through exhibitions, lectures, publications and internships; nascent research efforts that have begun to earn external funding; and a growing network of international academic agreements; all evidence a commitment on the part of program faculty and administration to currency in professional education, scholarship, and research.

As noted in I.1.1 above, in Spain, the curriculum for a professional degree in architecture is largely prescribed by law, and is very strong in its coverage of building technology. While producing some remarkable results, this focus limits the opportunity of university programs to also deliver instruction consistent with the NAAB requirement for a "holistic…. liberal arts-based education." (See also: II.2.2 Professional Degrees and Curriculum).

Course work in history and theory, although a required part of the professional curriculum, does not suffice for compliance with the NAAB requirement. Course work in painting and sculpture, although available to students, is an elective part of the professional degree curriculum. Stud who choose to enroll in dual degree programs pursue these disciplines more extensively as part of the dual degree: requirements.

> **Visit Three Team Assessment:** The curriculum for the professional program satisfies the general education studies required for UEM, the Madrid region, and Spanish law. Furthermore, students pass a series of competency tests in general subjects at the completion of tertiary school (the bachillerato), and a minimum score is required for admission to the university. The visiting team correlates this system to that of Advanced Placement testing in the U.S., which allows high school students to earn college-level general education credits. According to the UEM and program leadership, when added to the UEM general studies requirement (60 credits, or 16%), amounts to 38% percent of the professional program total of 360 credits. With this broader understanding of the tertiary school, the visit three team finds that the program meets this and related conditions—History and Mission (I.1.1) and Professional Degrees and Curriculum (II.2.2).

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[1] See Boyer, Ernest L. *Scholarship Reconsidered: Priorities of the Professoriate*. Carnegie Foundation for the Advancement of Teaching. 1990.

II.2.2 Professional Degrees and Curriculum: *For substantial equivalency, the NAAB requires degree programs in architecture to demonstrate that the program is comparable in all significant aspects to a program offered by a U.S. institution. This includes a curricular requirement that substantially equivalent degree programs must include general studies, professional studies, and electives.*

Curricular requirements are defined as follows:

- *General Studies. A professional degree program must include general studies in the arts, humanities, and sciences, either as an admission requirement or as part of the curriculum. It must ensure that students have the prerequisite general studies to undertake professional studies. The curriculum leading to the architecture degree must include a course of study comparable to 1.5 years of study or 30% of the total number of credits for an undergraduate degree. These courses must be outside architectural studies either as general studies or as electives with content other than architecture.*

  This requirement must be met at the university or tertiary school level. Post-secondary education cannot be used to meet this requirement. At least 20% of the credits in the professional architecture degree must be outside architectural studies either as general studies or as electives with other than architectural content.

- *Professional Studies. The core of a professional degree program consists of the required courses that satisfy the NAAB Student Performance Criteria (SPC). The professional degree program has the discretion to require additional courses including electives to address its mission or institutional context.*

- *Electives. A professional degree program must allow students to pursue their special interests. The curriculum must be flexible enough to allow students to complete minors or develop areas of concentration, inside or outside the program.*

> **Visit Two Team Assessment:** In Spain, students choose, at age 15, whether they will enter a college preparatory high school. There, the common curriculum includes General Science, Sports, Civics, Philosophy, Spanish History, Spanish Literature and a foreign language. The student selects one of four specialized majors: Visual Arts, Performance Arts, Humanities, or Science and Technology. Students planning to study architecture, major in Science and Technology. That major includes courses in Environmental Science, Technological Drawing, Design, Business, Electronic Technology, Physics, Math, Chemistry, Biology, and Technology.
>
> To enter university, the student must take a multi-part examination comprised of four exams: Literature, Foreign Language, History and Philosophy, and an exam based on the student's high school major. For additional points toward college placement, the student may also take an (optional) advanced examination on his/her high school major. The college placement score is a number based on high school grades, the basic exam and the additional exam.

The official professional curriculum clearly privileges accomplishment in the technology of building. While producing some remarkable accomplishments in terms of student proficiency, it limits the opportunity of university programs to also deliver instruction in the liberal arts. Therefore the UEM curriculum does not meet the NAAB requirement for 30% general studies coursework.

> **Visit Three Team Assessment:** The curriculum at UEM is highly dictated by the Spanish and Madrid legislature/laws. As such, it does not comply strictly with the NAAB requirement, but does include at least 24/300 credits of general/non-architecture coursework required at the undergraduate level. However, school administrators offer the explanation that national tests required for graduation from high school/tertiary school (the bachillerato) provide outcomes roughly equivalent to the Advanced Placement (AP) programs in U.S. schools, whereby college credit/courses is earned (or waived) through examination. When/if the standard exams are taken into account, the student's college curriculum includes 38% in general studies.
>
> However, the professional program remains highly prescribed and focused on professional content, which doesn't appear to leave room for students to pursue minors or concentrations in other areas. That said, students do have the option of completing undergraduate dual degrees, offered in collaboration with the art and industrial design. These tracks require six years of course work to complete both the pre-professional BDFA and the secondary Bachelor's Degree. A fourth option allows students to complete 4 years at UEM, followed by 1-2 years at the New School of Architecture (in San Diego), to earn both the BDFA and a NAAB-accredited B Arch. In all three cases, students are then eligible to pursue and complete the M Arch at UEM and thereby be certified to practice in Spain.

A.4.   **Technical Documentation:** *Ability* **to make technically clear drawings, write outline specifications, and prepare models illustrating and identifying the assembly of materials, systems, and components appropriate for a building design.**

Visit Two Team Assessment: Although technically clear drawings were in evidence throughout the curriculum–with particular emphasis on required courses *506: Technology Projects Workshop* and *508: Graduation Project*—outline specifications and models illustrating materials, systems and building components were not consistently in evidence.

> **Visit Three Team Assessment:** The evaluation of Graduation Projects from all coexisting tracks consistently revealed exceptional performance on Technical Documentation. The drawings and the models were not only complete, clear and strong, but graphically harmonious and fluid. The written booklets accompanying each project showed consistently strong investigative skills as well as effective control over design development, materials selection, and building systems integration.

A.7.   **Use of Precedents:** *Ability* **to examine and comprehend the fundamental principles present in relevant precedents and to make choices regarding the incorporation of such principles into architecture and urban design projects.**

Visit Two Team Assessment: The team found examples of precedent documentation in course *203: History and Art of the 20th and 21st Centuries*, but found only limited evidence of precedent analysis. Similarly, the team found limited acknowledgement that precedent informs student design choices in architecture and/or urban design projects.

Visit Three Team Assessment: Although there were instances where the ability to use precedents in student projects was clearly present, this ability was not consistently evidenced throughout required coursework. The team felt that the lack of process sketches for most projects within the team room did not allow verification of this criteria. Curiously, the projected presentation of some of the same projects in the exhibit at CentroCentro did include some very interesting design process sketches.

A.9.   **Historical Traditions and Global Culture:** *Understanding* **of parallel and divergent canons and traditions of architecture, landscape and urban design including examples of indigenous, vernacular, local, regional, national settings from the Eastern, Western, Northern, and Southern hemispheres in terms of their climatic, ecological, technological, socioeconomic, public health, and cultural factors.**

Visit Two Team Assessment: To date, only two of the new required courses in historical traditions and global culture have been taught. These are: *103: Introduction to Contemporary Architecture + Art* and *203: History and Art of the 20th and 21st Centuries.* These courses primarily address the Western canon. The team room exhibition held limited reference to indigenous or vernacular traditions, or to architecture created in settings from the Eastern, Northern, and Southern hemispheres as those respond to climatic, ecological, technological, socioeconomic, public health, and/or cultural factors.

> **Visit Three Team Assessment:** The curriculum includes many courses addressing these issues. The history of architecture courses are not taught in the traditional chronological order. Students first encounter contemporary architecture, actually providing an opportunity for consideration of relatable global cultures. There was evidence in the Team Room of projects in Asia, Africa and South America. Many graduation projects actually positioned the proposed development evaluating its response to the immediate, regional, continental and global contexts.

A.10.   **Cultural Diversity***: Understanding* **of the diverse needs, values, behavioral norms, physical abilities, and social and spatial patterns that characterize different cultures and individuals and the implication of this diversity on the societal roles and responsibilities of architects.**

Visit Two Team Assessment: Although the team found projects addressing spatial and social patterns in the neighborhood/ ecosystem mapping exercise of required courses *205: Design Workshop G1* and *208: Urban Areas and Sustainable Design,* it found limited evidence addressing the role and responsibility of architects in understanding and responding to diversity in values, behavioral norms, physical abilities, or cultures.

> **Visit Three Team Assessment:** The reality of the city of Madrid offers few opportunities for confronting diversity issues. Unlike other European capitals, Madrid has experienced little immigration from African, Middle Eastern, or Asian countries. Most immigrants coming to Madrid come from Latin America. This limits the exposure to racial and cultural diversity in the city. On the other hand, after Franco, Madrileños have developed a very open view on diverse lifestyles, including sexual orientation. Gay marriage and adoption has been legal in Spain for a while now. The UEM does make an effort to bring in cultural and racial diversity by promoting enrollment of foreign and exchange students.

Interestingly enough, Spaniards seem to readily accept newcomers as their own, making diversity a nonissue.

B.2.   **Accessibility:** *Ability* **to design sites, facilities, and systems to provide independent and integrated use by individuals with physical (including mobility), sensory, and cognitive disabilities**.

Visit Two Team Assessment: Although some accessibility issues appear to be covered in required course *506: Technology Project Workshop*, the extent of this coverage is limited. The material falls short of ensuring student ability to address accessibility concerns through the building design process. The team found even less evidence that student possesses the ability to address accessibility at the scale of site or urban design.

The program matrix designates required courses *304: Integration Workshop I* and *309: Integrated Workshop II* as the primary (future) loci for this material. These new third-year courses are planned components of the new 2011 Master of Architecture curriculum. The student cohort for that degree is now enrolled in its second year. As a result, these courses have yet to be taught.

Visit Three Team Assessment: Evidence was found on student assignments and projects prepared for Integration Workshops I and II, courses 304 and 309, that the general principles of accessibility are well understood. Although these concepts do not translate strongly into the work produced for Design studios, most Graduation Projects do consider accessibility issues in their proposals. It must be clear that accessibility guidelines in Spain and in the rest of Europe vary from the stricter focused approach of ADA in the US. Therefore, you will not see turning circles drawn in bathroom floor plans (for example), even though the space requirements have been properly considered.

B.6.   **Comprehensive Design:** *Ability* **to produce a comprehensive architectural project that demonstrates each student's capacity to make design decisions across scales while integrating the following SPC:**

A.2. Design Thinking Skills	**B.2. Accessibility**
A.4. Technical Documentation	**B.3. Sustainability**
A.5. Investigative Skills	**B.4. Site Design**
A.8. Ordering Systems	**B.7. Environmental Systems**
A.9. Historical Traditions and Global Culture	**B.9.Structural Systems**
B.5. Life Safety	

Visit Two Team Assessment: The team found aspects of all of the required skills in work produced by different authors for different workshops/studios throughout the curriculum, but did not find them in any single set of comprehensive projects by individual authors.

Visit Three Team Assessment: The team was generally impressed by the comprehensive design work produced for Graduation Projects. Besides the fact that Spanish law determines a minimum of detailed instruction in structures and technology, the UEM focuses on their architecture students' ability to integrate structures, building systems, building envelope enclosures, materials and systems selection. Graduation Projects present a higher level of construction detailing than that expected of student work elsewhere.

II.   Compliance with the Conditions for Substantial Equivalency
(Note, every assessment should be accompanied by a brief narrative. In the case of SPCs being Met, the team is encouraged to identify the course or courses where evidence of student accomplishment was found. Likewise, if the assessment of the condition or SPC is negative, please include a narrative that indicates the reasoning behind the team's assessment.)

Part One (I): INSTITUTIONAL SUPPORT AND COMMITMENT TO CONTINUOUS IMPROVEMENT

Part One (I): Section 1. Identity and Self-Assessment

I.1.1 History and Mission: The program must describe its history, mission and culture and how that history, mission, and culture is expressed in contemporary context. Programs that exist within a larger educational institution must also describe the history and mission of the institution and how that history, mission, and culture is expressed in contemporary context.

The substantially equivalent degree program must describe and then provide evidence of the relationship between the program, the administrative unit that supports it (e.g., school or college) and the institution. This includes an explanation of the program's benefits to the institutional setting, how the institution benefits from the program, any unique synergies, events, or activities occurring as a result, etc.

Finally, the program must describe and then demonstrate how the course of study and learning experiences encourage the holistic, practical and liberal arts-based education of architects.

[X] The program has fulfilled this requirement for narrative and evidence
[ ] The program has not fulfilled this requirement for narrative or evidence

> **Visit Three Team Assessment:** The APR describes extensively its response to the History and Mission of the school, the college, the university, and the Laureate International Universities system. The administration sees the School of Architecture—along with the Law School and the School of Medicine—as one of their most important and strongest assets. The availability of dual degrees in architecture and fine arts, architecture and design, and architecture and engineering provides a unique synergy among these disciplines. The bilingual offering of all courses allows for their interest in bringing in international students and at the same time allowing their Spanish students to develop internationally. It seems that the message has been widely and clearly spread, for most students confirm that these are particularly the reasons why they selected UEM.

I.1.2 Learning Culture and Social Equity:
  ● *Learning Culture: The program must demonstrate that it provides a positive and respectful learning environment that encourages the fundamental values of optimism, respect, sharing, engagement, and innovation between and among the members of its faculty, student body, administration, and staff in all learning environments both traditional and nontraditional.*

    Further, the program must demonstrate that it encourages students and faculty to appreciate these values as guiding principles of professional conduct throughout their careers, and it addresses health-related issues, such as time management.

    Finally, the program must document, through narrative and artifacts, its efforts to ensure that all members of the learning community (faculty, staff, and students) are aware of these objectives and are advised as to the expectations for ensuring they are met in all elements of the learning culture.

  ● *Social Equity: The substantially equivalent degree program must first describe how social equity is defined within the context of the institution or the country in which it is located and then demonstrate how it provides faculty, students, and staff with a culturally rich educational environment in which each person is equitably able to learn, teach, and work.*

[X] The program has demonstrated that it provides a positive and respectful learning environment.
[ ] The program has not demonstrated that it provides a positive and respectful learning environment.

[X] The program has demonstrated that it provides a culturally rich environment in which each person is equitably able to learn, teach, and work.
[ ] The program has not demonstrated that it provides a culturally rich environment in which each person is equitably able to learn, teach, and work.

> **Visit Three Team Assessment:** The visiting team noticed a very intense involvement of administrators, faculty and students, all working hard toward a common goal. They really want to make their school the best. There is also a sense of pride in their accomplishments so far and gratitude for the direction they have been given by the NAAB. Faculty are inspired to develop academically by the demand to obtain a PhD, and are encouraged and guided to participate in research. Most faculty members are also practicing architects, and this brings a sense of professional reality to the students in the program. Both the work of faculty and students is routinely published and exhibited. Spanish law requires that all faculty and staff be members of an employees union, which keeps a permanent office in the architecture building. Students select representatives who meet regularly with the administration and program directors. As a result of their involvement and in response to NAAB comments, the school has addressed and resolved very quickly its main issues.

I.1.3 Response to the Five Perspectives: Programs must demonstrate through narrative and artifacts, how they respond to the following perspectives on architecture education. Each program is expected to address these perspectives consistently within the context of its history, mission, and culture and to further identify as part of its long-range planning activities how these perspectives will continue to be addressed in the future.

A. **Architecture Education and the Academic Community**. That the faculty, staff, and students in the substantially equivalent degree program make unique contributions to the institution in the areas of scholarship, community engagement, service, and teaching.[2] In addition, the program must describe its commitment to the holistic, practical, and liberal arts–based education of architects and to providing opportunities for all members of the learning community to engage in the development of new knowledge.

    [X] The program is responsive to this perspective.
    [ ] The program is not responsive to this perspective.

    Visit Three Team Assessment: The school is seen as a model for the larger university. Together with the school of medicine, the School of Architecture is seen as one of the most important assets of the UEM. It will soon be reconstituted as a School of Architecture and Engineering, and students have access to testing labs that are located within the architecture building. Fine arts workshops are also shared. The main campus library is located within the school building, thereby serving also as a meeting place for the entire academic community.

B. **Architecture Education and Students**. That students enrolled in the substantially equivalent degree program are prepared to live and work in a global world where diversity, distinctiveness, self-worth, and dignity are nurtured and respected; to emerge as leaders in the academic setting and the profession; to understand the breadth of professional opportunities; to make thoughtful, deliberate, informed choices and; to develop the habit of lifelong learning.

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[2] See Boyer, Ernest L. *Scholarship Reconsidered: Priorities of the Professoriate*. Carnegie Foundation for the Advancement of Teaching. 1990.

[X] The program is responsive to this perspective.
[ ] The program is not responsive to this perspective.

Visit Three Team Assessment: The team was impressed by the students, who seem to be aware of their options and opportunities, in both local and global contexts. In the absence of a studio space, there is no real "studio culture" (problem) as we know it. The vast majority of students choose to live in the city of Madrid, rather than in the village of Villaviciosa de Odón, in which the campus is located. This likely has a positive effect—connecting them to a cosmopolitan context, multiple cultural opportunities, and professional settings. However, "If you try hard enough...." was a troubling phrase heard among students.

C.   **Architecture Education and the Regulatory Environment**. That students enrolled in the substantially equivalent degree program are provided with a sound preparation for the transition to licensure or registration. The school may choose to explain in the *APR* the degree program's relationship with the process of becoming an architect in the country where the degree is offered, the exposure of students to possible internship requirements, the students' understanding of their responsibility for professional conduct, and the proportion of graduates who have sought and achieved licensure or registration since the previous visit.

[X] The program is responsive to this perspective.
[ ] The program is not responsive to this perspective.

Visit Three Team Assessment: Spanish law prescribes and influences the curriculum to comply with state education and experience requirements necessary to provide licensure upon graduation. The jury for the Graduation Projects, which must be presented and defended by each individual student, is seen as a licensing exam. The official professional association mandated by law, the Colegio de Arquitectos de Madrid, which will certify licensure for each student, is also involved in student activities within and outside of the UEM.

D.   **Architecture Education and the Profession**. That students enrolled in the substantially equivalent degree program are prepared: to practice in a global economy; to recognize the positive impact of design on the environment; to understand the diverse and collaborative roles assumed by architects in practice; to understand the diverse and collaborative roles and responsibilities of related disciplines; to respect client expectations; to advocate for design-based solutions that respond to the multiple needs of diverse clients and populations, as well as the needs of communities; and to contribute to the growth and development of the profession.

[X] The program is responsive to this perspective.
[ ] The program is not responsive to this perspective.

Visit Three Team Assessment: The architect in Spain is seen as the leader of the development and construction industry. As such, students at UEM are prepared to assume this important role. Its international approach, including exchange programs and bilingual teaching, has proven worthwhile in positioning alumni in firms mostly producing work abroad, due to the national economic situation. Students gain preparation for global practice through international exchange and degree options.

E.   **Architecture Education and the Public Good**. That students enrolled in the substantially equivalent degree program are prepared: to be active, engaged citizens; to be responsive to the needs of a changing world; to acquire the knowledge needed to address pressing environmental, social, and economic challenges through design, conservation, and responsible professional practice; to understand the ethical implications of their decisions; to reconcile differences between the architect's obligation to his/her client and the public; and to nurture a climate of civic engagement, including a commitment to professional and public service and leadership.

[X] The program is responsive to this perspective.
[ ] The program is not responsive to this perspective.

Visit Three Team Assessment: Deontology and values seem to be assigned equal importance in relation to other courses. UEM Professor Carlos J Irisarri has actually written the books on this aspect of the profession that are widely used in teaching the subject. The school also identifies an annual theme addressing an important public good, which is used as a focus throughout the school in all design courses.

I.1.4 Long-Range Planning: A substantially equivalent degree program must demonstrate that it has identified multi-year objectives for continuous improvement within the context of its mission and culture, the mission and culture of the institution, and the five perspectives. In addition, the program must demonstrate that data is collected routinely and from multiple sources to inform its future planning and strategic decision making.

[X] The program's processes meet the standards as set by the NAAB.
[ ] The program's processes do not meet the standards as set by the NAAB.

Visit Three Team Assessment: Although most of the long range planning of the school is also prescribed by Spanish law, the school has been able to quickly adapt the curriculum, in response to NAAB comments and MADRI+D requirements to plan the road ahead.

I.1.5 Self-Assessment Procedures: The program must demonstrate that it regularly assesses the following:
▪ *How the program is progressing toward its mission.*
▪ *Progress against its defined multiyear objectives (see I.1.4 Long-Range Planning) since the objectives were identified and since the last visit.*
▪ *Strengths, challenges, and opportunities faced by the program while developing learning opportunities in support of its mission and culture, the mission and culture of the institution, and the five perspectives.*
▪ *Self-assessment procedures shall include, but are not limited to:*
　　o *Solicitation of faculty, students', and graduates' views on the teaching, learning and achievement opportunities provided by the curriculum.*
　　o *Individual course evaluations.*
　　o *Review and assessment of the focus and pedagogy of the program.*
　　o *Institutional self-assessment, as determined by the institution.*
The program must also demonstrate that results of self-assessments are regularly used to advise and encourage changes and adjustments to promote student success as well as the continued maturation and development of the program.

[X] The program's processes meet the standards as set by the NAAB.
[ ] The program's processes do not meet the standards as set by the NAAB.

Visit Three Team Assessment: Taking into consideration that ours was the third NAAB visit in as many years, the team was impressed by the ways in which the school quickly reacted to put into place previous teams suggestions. They seem to survey every aspect of their decisions, so that changes are generally implemented taking into consideration the input of the visiting teams, faculty and students alike.

PART ONE (I): SECTION 2—RESOURCES

I.2.1 Human Resources and Human Resource Development
- *Faculty & Staff:*
  o *A substantially equivalent degree program must have appropriate human resources to support student learning and achievement. This includes full- and part-time instructional faculty, administrative leadership, and technical, administrative, and other support staff. Programs are required to document personnel policies which may include but are not limited to faculty and staff position descriptions[3].*
  o *Substantially equivalent programs must document the policies they have in place to further social equity or diversity initiatives appropriate to the cultural context of the institution.*
  o *A substantially equivalent degree program must demonstrate that it balances the workloads of all faculty and staff to support a tutorial exchange between the student and teacher that promotes student achievement.*
  o *A substantially equivalent degree program must demonstrate it is able to provide opportunities for all faculty and staff to pursue professional development that contributes to program improvement.*
  o *Substantially equivalent programs must document the criteria used for determining rank, reappointment, tenure, and promotion as well as eligibility requirements for professional development resources.*

[X] Human Resources (faculty and staff) are adequate for the program.
[ ] Human Resources (faculty and staff) are inadequate for the program.

Visit Three Team Assessment: The APR provides links to all policies that are available to faculty. The preference for having mainly practicing architects teaching makes it difficult to maintain full-time faculty. During meetings with administration, human resources and faculty alike there is a clear sense of the university's desire to promote professional development. Balancing faculty time is another issue, but they are given the opportunity to reduce the teaching load when assuming administrative, counseling, and research roles. Apparently, the Spanish government now requires that university faculty are/will be required to hold a PhD.

- *Students:*
  o *A substantially equivalent program must document its student admissions policies and procedures. This documentation may include but is not limited to application forms and instructions, admissions requirements, admissions decisions procedures, financial aid and scholarships procedures, and student diversity initiatives. These procedures should include first-time, first-year students as well as transfers within and outside of the university.*
  o *A substantially equivalent degree program must demonstrate its commitment to student achievement both inside and outside the classroom through individual and collective learning opportunities.*

[X] Human Resources (students) are adequate for the program.
[ ] Human Resources (students) are inadequate for the program.

Visit Three Team Assessment: Student selection and advancement policies are detailed in the APR and substantiated with web links that are accessible for students. First-year students must pass the entrance exam. Transfer students must also go through an interview. From the visiting team meetings with students, it is clear that they have selected this program among other options and that they believe they made the right choice.

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[3] A list of the policies and other documents to be made available in the team room during a substantial equivalency visit is in Appendix 4 of the 2012 Conditions for Substantial Equivalency.

I.2.2 Administrative Structure and Governance
▪ **Administrative Structure:** *A substantially equivalent degree program must demonstrate it has a measure of administrative autonomy that is sufficient to affirm the program's ability to conform to the conditions for substantial equivalency. Substantially equivalent programs are required to maintain an organizational chart describing the administrative structure of the program and position descriptions describing the responsibilities of the administrative staff.*

[X] Administrative structure is adequate for the program.
[ ] Administrative structure is inadequate for the program.

Visit Three Team Assessment: A very clear organizational chart was presented by the Dean illustrating the governance structure. Even though there is administrative flexibility, it is important to always consider the fact that Spanish Law is very prescriptive, and this fact does limit the program's flexibility.

▪ **Governance:** *The program must demonstrate that all faculty, staff, and students have equitable opportunities to participate in program and institutional governance as appropriate to the context and culture of the institution.*

[X] Governance opportunities are adequate for the program.
[ ] Governance opportunities are inadequate for the program.

Visit Three Team Assessment: Students have a representative structure which gives access to the administration. Faculty and Staff are required by Law to be members of an employee union, which has a permanent office in the building. The administration of the program is divided under the direction of three directors: one for outreach and promotion, one for academic curriculum, and one for student affairs. This said, the team noted some confusion among faculty and students about how the governance system works, with varying opinions about its effectiveness.

I.2.3 Physical Resources: *The program must demonstrate that it provides physical resources that promote student learning and achievement in a professional degree program in architecture. This includes but is not limited to the following:*
▪ *Space to support and encourage studio-based learning*
▪ *Space to support and encourage didactic and interactive learning.*
▪ *Space to support and encourage the full range of faculty roles and responsibilities including preparation for teaching, research, mentoring, and student advising.*

[X] Physical resources are adequate for the program.
[ ] Physical resources are inadequate for the program.

Visit Three Team Assessment: First, it is important to point out that the Spanish concept of "studio" and ours is quite different. Instead of individual one-on-one critiques, at UEM students are required to present their work to their professor and their classmates. After the professor gives a critique all other students are encouraged to also provide their feedback. After Visit 2, the school developed a communal large "studio" that now provides for a place where students can work together outside of class, and students can reserve space for work during the whole trimester. It was gratifying to see some professors also working there with their students.

I.2.4 Financial Resources: *A substantially equivalent degree program must demonstrate that it has access to appropriate institutional and financial resources to support student learning and achievement.*

[X] Financial resources are adequate for the program.
[ ] Financial resources are inadequate for the program.

Visit Three Team Assessment: The school presented appropriate evidence in the APR as well as during face-to-face interviews during the team visit to enable assessment of financial resources. The school and the university appear well organized to plan budgets and monitor profit plans over one-, three-, and five-year cycles with respect to the architecture program's finances.

I.2.5 Information Resources: *The substantially equivalent program must demonstrate that all students, faculty, and staff have convenient access to literature, information, and visual and digital resources that support professional education in the field of architecture.*

Further, the substantially equivalent program must demonstrate that all students, faculty, and staff have access to architecture librarians and visual resources professionals who provide information services that teach and develop research, evaluative, and critical thinking skills necessary for professional practice and lifelong learning.

[X] Information resources are adequate for the program
[ ] Information resources are inadequate for the program

Visit Three Team Assessment: As a shared and centralized resource for UEM, the CRAI Library has demonstrated that all students, faculty and staff have appropriate access to library resources that support architectural education. The school presented evidence as required in the APR, as well as in an on-site tour during the site visit.

PART I: SECTION 3—REPORTS
I.3.1 Statistical Reports. *Programs are required to provide statistical data in support of activities and policies that support social equity in the professional degree and program as well as other data points that demonstrate student success and faculty development.*

- *Program student characteristics.*
  - o *Number of students enrolled in the substantially equivalent degree program(s).*
  - o *Qualifications of students admitted in the fiscal year prior to the upcoming visit compared to those admitted in the fiscal year prior to the last visit.*
  - o *Time to graduation.*
    - ▪ *Percentage of matriculating students who complete the substantially equivalent degree program within the normal time to completion for each academic year since the previous visit.*
    - ▪ *Percentage who complete the substantially equivalent degree program within 150% of the normal time to completion for each academic year since the previous visit.*

- *Program faculty characteristics*
  - o Number of faculty by rank (e.g., assistant professor, associate professor)
  - o Number of full-time faculty and part-time faculty
  - o Number of faculty promoted each year since the last visit
  - o Number of faculty maintaining licenses in the country of the program each year since the last visit, and where they are licensed

[X] Statistical reports were provided and provide the appropriate information.
[ ] Statistical reports were not provided.
[ ] Statistical reports do not provide the appropriate information.

Visit Three Team Assessment: Although there were some unclear statistics in the APR, during the visit program administrators provided supplemental information to satisfy all report requirements.

I.3.2 Faculty Credentials*: The program must demonstrate that the instructional faculty are adequately prepared to provide an architecture education within the mission, history, and context of the institution.*

In addition, the program must provide evidence through a faculty exhibit[4] that the faculty, taken as a whole, reflects the range of knowledge and experience necessary to promote student achievement as described in Part Two. This exhibit should include highlights of faculty professional development and achievement since the last substantial equivalency visit.

[X] Faculty credentials were provided and demonstrate the range of knowledge and experience necessary to promote student achievement.
[ ] Faculty credentials did not demonstrate the range of knowledge and experience necessary to promote student achievement.
[ ] Faculty credentials were not provided.

Visit Three Team Assessment: Extensive faculty credentials were included in the APR and further clarified during the visit. Meetings with faculty also revealed their pride in having so many award-winning practicing architects and researchers among them.

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[4] The faculty exhibit should be set up near or in the team room. To the extent the exhibit is incorporated into the team room, it should not be presented in a manner that interferes with the team's ability to view and evaluate student work.

PART ONE (I): SECTION 4—POLICY REVIEW

The information required in the three sections described above is to be addressed in the APR. In addition, the program shall provide a number of documents for review by the visiting team. Rather than being appended to the APR, they are to be provided in the team room during the visit. The list is available in Appendix 4 of the Conditions for Substantial Equivalency.

[X] The policy documents in the team room met the requirements of Appendix 4
[ ] The policy documents in the team room did not meet the requirements of Appendix 4

Visit Three Team Assessment: Policy information provided in the APR was supplemented with policy documents and web pages, which the team found to satisfy this condition.

PART TWO (II): EDUCATIONAL OUTCOMES AND CURRICULUM

PART TWO (II): SECTION 1—STUDENT PERFORMANCE—EDUCATIONAL REALMS AND STUDENT PERFORMANCE
CRITERIA
The substantially equivalent degree program must demonstrate that each graduate possesses the
knowledge and skills defined by the Student Performance Criteria set out below. The knowledge and
skills are the minimum for meeting the demands of an internship leading to registration for practice.

The school must provide evidence that its graduates have satisfied each criterion through required
coursework. If credits are granted for courses taken at other institutions or online, evidence must be
provided that the courses are comparable to those offered in the substantially equivalent degree program.

The criteria encompass two levels of accomplishment[5]:

Understanding—The capacity to classify, compare, summarize, explain and/or interpret information.

Ability—Proficiency in using specific information to accomplish a task, correctly selecting the appropriate
information, and accurately applying it to the solution of a specific problem, while also distinguishing the
effects of its implementation.

The NAAB establishes student performance criteria to help substantially equivalent degree programs
prepare students for the profession while encouraging educational practices suited to the individual
degree program. In addition to assessing whether student performance meets the professional criteria,
the visiting team will assess performance in relation to the school's stated curricular goals and content.
While the NAAB stipulates the student performance criteria that must be met, it specifies neither the
educational format nor the form of student work that may serve as evidence of having met these criteria.
Programs are encouraged to develop unique learning and teaching strategies, methods, and materials to
satisfy these criteria. The NAAB encourages innovative methods for satisfying the criteria, provided the
school has a formal evaluation process for assessing student achievement of these criteria and
documenting the results.

For the purpose of substantial equivalency, graduating students must demonstrate understanding or
ability as defined below in the Student Performance Criteria (SPC):

II.1.1 Student Performance Criteria: The SPC are organized into realms to more easily understand the
relationships between individual criteria.

Realm A: Critical Thinking and Representation:
Architects must have the ability to build abstract relationships and understand the impact of ideas based
on research and analysis of multiple theoretical, social, political, economic, cultural and environmental
contexts. This ability includes facility with the wider range of media used to think about architecture
including writing, investigative skills, speaking, drawing and model making. Students' learning aspirations
include:

- Being broadly educated.
- Valuing lifelong inquisitiveness.
- Communicating graphically in a range of media.
- Recognizing the assessment of evidence.
- Comprehending people, place, and context.
- Recognizing the disparate needs of client, community, and society.

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[5] See also *Taxonomy for Learning, Teaching and Assessing: A Revision of Bloom's Taxonomy of Educational
Objectives.* L. W. Anderson and D. R. Krathwold, eds. (New York: Longman, 2001).

A.1. **Communication Skills:** *Ability to* **read, write, speak and listen effectively.**

[X] Met
[ ] Not Met

Visit Three Team Assessment: Evidence demonstrating this SPC was found in 102 Communication Skills, in digital format—in both English and Spanish—covering several formats of communication, including presentations, videos, interviews, and written papers. Evidence was also found in the 508 bachelor's degree Graduation Project.

A.2. **Design Thinking Skills:** *Ability to* **raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards.**

[X] Met
[ ] Not Met

Visit Three Team Assessment: Evidence was found in 205 Design Studio G1, 210 Design Studio G2, 305 Design Studio G3, 310 Design Studio G4, 504 Design Studio G7.

A.3. **Visual Communication Skills:** *Ability to* **use appropriate representational media, such as traditional graphic and digital technology skills, to convey essential formal elements at each stage of the programming and design process.**

[X] Met
[ ] Not Met

Visit Three Team Assessment: Evidence was found in 204 Integrated Drawing III, 209 Integrated Drawing IV and throughout the design course sequence

A.4. **Technical Documentation:** *Ability* **to make technically clear drawings, write outline specifications, and prepare models illustrating and identifying the assembly of materials, systems, and components appropriate for a building design.**

[X] Met
[ ] Not Met

Visit Three Team Assessment: Evidence was found in 402 Construction IV: Envelope and 406 Technical Systems.

A.5. **Investigative Skills:** *Ability to* **gather, assess, record, apply, and comparatively evaluate relevant information within architectural coursework and design processes.**

[X] Met
[ ] Not Met

Visit Three Team Assessment: Evidence of this ability could be found throughout the curriculum, including: 101 Applied Mathematics, 106 Process Physics, 103 Introduction to Architecture and Contemporary Art, 203 Architecture and Art of the 20th and 21st centuries, as well as the 508 Graduation Project

A.6.   **Fundamental Design Skills:** *Ability to* **effectively use basic architectural and environmental principles in design.**

[X] Met
[ ] Not Met

Visit Three Team Assessment: Evidence found in student work for Design Studios G5 and G6, courses 405 and 409.

A.7.   **Use of Precedents:** *Ability* **to examine and comprehend the fundamental principles present in relevant precedents and to make choices regarding the incorporation of such principles into architecture and urban design projects.**

[ ] Met
[X] Not Met

Visit Three Team Assessment: Although there were instances where the ability to use precedents in student projects was clearly present, this ability was not consistently evidenced throughout. The team felt that the lack of process sketches for most projects within the team room did not allow verification of this criterion.

A.8.   **Ordering Systems Skills:** *Understanding* **of the fundamentals of both natural and formal ordering systems and the capacity of each to inform two- and three-dimensional design.**

[X] Met
[ ] Not Met

Visit Three Team Assessment: Evidence was found in 109 Architectural Geometry, 204 Integrated Drawing III.

A.9.   **Historical Traditions and Global Culture:** *Understanding* **of parallel and divergent canons and traditions of architecture, landscape and urban design including examples of indigenous, vernacular, local, regional, national settings from the Eastern, Western, Northern, and Southern hemispheres in terms of their climatic, ecological, technological, socioeconomic, public health, and cultural factors.**

[X] Met
[ ] Not Met

Visit Three Team Assessment: Digital evidence was found in Spanish and English for these courses: 208 Urban Areas and Sustainable Design, 308 History of Art and Architecture I, and 303 Urban Planning.

A.10.   **Cultural Diversity***: Understanding* **of the diverse needs, values, behavioral norms, physical abilities, and social and spatial patterns that characterize different cultures and individuals and the implication of this diversity on the societal roles and responsibilities of architects.**

[X] Met
[ ] Not Met

Visit Three Team Assessment: Evidence of this SPC was found in 308 History of Art and Architecture I, in both English and Spanish sections. Evidence was also found in 404 Project Workshop: City.

A.11. **Applied Research:** *Understanding* **the role of applied research in determining function, form, and systems and their impact on human conditions and behavior.**

[X] Met
[ ] Not Met

Visit Three Team Assessment: Evidence of this criterion was found in 301 Building Facilities, 504 Design Studio G7, 506 Technical Project Workshop, and 103M Graduation Project (Master's).

Realm A. General Team Commentary: Even with very different teaching approaches and a very rigid curricular framework, the general outcomes on critical design thinking and representation are quite exceptional. The work in the team room was not only very clearly organized, but also showed the students' consistent ability to explain their ideas, clearly and with a very appealing graphic expression.

Realm B: Integrated Building Practices, Technical Skills and Knowledge: Architects are called upon to comprehend the technical aspects of design, systems and materials, and be able to apply that comprehension to their services. Additionally they must appreciate their role in the implementation of design decisions, and their impact of such decisions on the environment. Students learning aspirations include:

- Creating building designs with well-integrated systems.
- Comprehending constructability.
- Incorporating life safety systems.
- Integrating accessibility.
- Applying principles of sustainable design.

B.1. **Pre-Design:** *Ability* **to prepare a comprehensive program for an architectural project, such as preparing an assessment of client and user needs, an inventory of space and equipment requirements, an analysis of site conditions (including existing buildings), a review of the relevant laws and standards and assessment of their implications for the project, and a definition of site selection and design assessment criteria.**

[X] Met
[ ] Not Met

Visit Three Team Assessment: Evidence was found in 405 Design Studio G5 and 409 Design Studio G6.

B.2. **Accessibility:** *Ability* **to design sites, facilities, and systems to provide independent and integrated use by individuals with physical (including mobility), sensory, and cognitive disabilities**.

[X] Met
[ ] Not Met

Visit Three Team Assessment: Evidence found in student work from course 406 Technical Systems.

B.3. **Sustainability:** *Ability* **to design projects that optimize, conserve, or reuse natural and built resources, provide healthful environments for occupants/users, and reduce the environmental impacts of building construction and operations on future generations through means such as carbon-neutral design, bioclimatic design, and energy efficiency.**

[X] Met
[ ] Not Met

Visit Three Team Assessment: Evidence found in student work in courses 205 Design Studio G-1 and Graduation Projects, along with 306 Construction III: Structures.

B.4.   Site Design: *Ability* **to respond to site characteristics such as soil, topography, vegetation, and watershed in the development of a project design.**

[X] Met
[ ] Not Met

Visit Three Team Assessment: Evidence was found in student work in courses 108 Urban Development Basics and 208 Urban Areas and Sustainable Design.

B.5.   Life Safety: *Ability* **to apply the basic principles of life-safety systems with an emphasis on egress.**

[X] Met
[ ] Not Met

Visit Three Team Assessment: Evidence was found in student work in course 301 Building Facilities.

B.6.   Comprehensive Design: *Ability* **to produce a comprehensive architectural project that demonstrates each student's capacity to make design decisions across scales while integrating the following SPC:**

A.2. Design Thinking Skills	**B.2. Accessibility**
A.4. Technical Documentation	**B.3. Sustainability**
A.5. Investigative Skills	**B.4. Site Design**
A.8. Ordering Systems	**B.7. Environmental Systems**
A.9. Historical Traditions and Global Culture	**B.9.Structural Systems**
B.5. Life Safety	

[X] Met
[ ] Not Met

Visit Three Team Assessment: Evidence found in Graduation Projects (2008 curriculum).

B.7   Financial Considerations: *Understanding* **of the fundamentals of building costs, such as acquisition costs, project financing and funding, financial feasibility, operational costs, and construction estimating with an emphasis on life-cycle cost accounting.**

[X] Met
[ ] Not Met

Visit Three Team Assessment: Evidence found in student work on course 406 Technical Systems and in Graduation Projects.

B.8. **Environmental Systems:** *Understanding* **the principles of environmental systems' design such as embodied energy, active and passive heating and cooling, indoor air quality, solar orientation, daylighting and artificial illumination, and acoustics; including the use of appropriate performance assessment tools.**

[X] Met
[ ] Not Met

Visit Three Team Assessment: Evidence found in student work on course 206 Conditioning Techniques and in Graduation Projects.

B.9. **Structural Systems:** *Understanding* **of the basic principles of structural behavior in withstanding gravity and lateral forces and the evolution, range, and appropriate application of contemporary structural systems.**

[X] Met
[ ] Not Met

Visit Three Team Assessment: Evidence was found in 202 Structural Mechanics, 307 Structural Dimensioning, 306 Construction III: Structures, 407 Structures Design and Foundations, as well as 207 Structural Analysis.

B.10. **Building Envelope Systems:** *Understanding* **of the basic principles involved in the appropriate application of building envelope systems and associated assemblies relative to fundamental performance, aesthetics, moisture transfer, durability, and energy and material resources.**

[X] Met
[ ] Not Met

Visit Three Team Assessment: Evidence was found in 402 Construction IV: Envelope and 406 Technical Systems.

B.11. **Building Service Systems Integration:** *Understanding* **of the basic principles and appropriate application and performance of building service systems such as plumbing, electrical, vertical transportation, security, and fire protection systems**

[X] Met
[ ] Not Met

Visit Three Team Assessment: Evidence was found in 301 Building Facilities.

B.12. **Building Materials and Assemblies Integration:** *Understanding* **of the basic principles utilized in the appropriate selection of construction materials, products, components, and assemblies, based on their inherent characteristics and performance, including their environmental impact and reuse**.

[X] Met
[ ] Not Met

Visit Three Team Assessment: Evidence was found in 107 Construction I: Systems, 201 Construction II: Materials, 402 Construction IV: Envelope.

Realm B. General Team Commentary: With a curriculum that gives notable emphasis on structures and technology, it is no surprise that most UEM students excel in managing building systems and materials integration into their design work, developing a clear understanding of construction detailing.

Realm C: Leadership and Practice:
Architects need to manage, advocate, and act legally, ethically and critically for the good of the client, society and the public. This includes collaboration, business, and leadership skills. Student learning aspirations include:

- Knowing societal and professional responsibilities
- Comprehending the business of building.
- Collaborating and negotiating with clients and consultants in the design process.
- Discerning the diverse roles of architects and those in related disciplines.
- Integrating community service into the practice of architecture.

C.1.   **Collaboration: *Ability* to work in collaboration with others and in multi-disciplinary teams to successfully complete design projects.**

[X] Met
[ ] Not Met

Visit Three Team Assessment: Evidence found in 404, Project Workshop: City

C.2.   **Human Behavior: *Understanding* of the relationship between human behavior, the natural environment and the design of the built environment.**

[X] Met
[ ] Not Met

Visit Three Team Assessment: Evidence found in course 208 Urban Areas and Sustainable Design

C.3   **Client Role in Architecture: *Understanding* of the responsibility of the architect to elicit, understand, and reconcile the needs of the client, owner, user groups, and the public and community domains.**

[X] Met
[ ] Not Met

Visit Three Team Assessment: Evidence was found in 208 Urban Areas and Sustainable Design, 408 Deontology and Values, and 302 Business Management.

C.4.   **Project Management: *Understanding* of the methods for competing for commissions, selecting consultants and assembling teams, and recommending project delivery methods**

[X] Met
[ ] Not Met

Visit Three Team Assessment: Evidence was found in student work in course 302 Business Management.

C.5.   **Practice Management: *Understanding* of the basic principles of architectural practice management such as financial management and business planning, time management, risk management, mediation and arbitration, and recognizing trends that affect practice.**

[X] Met
[ ] Not Met

Visit Three Team Assessment: Evidence was found in student work in course 302 Business Management.

C.6. **Leadership: *Understanding* of the techniques and skills architects use to work collaboratively in the building design and construction process and on environmental, social, and aesthetic issues in their communities**.

[X] Met
[ ] Not Met

Visit Three Team Assessment: Evidence found in course 501-502, Professional Internship.

C.7. **Legal Responsibilities: *Understanding* of the architect's responsibility to the public and the client as determined by registration law, building codes and regulations, professional service contracts, zoning and subdivision ordinances, environmental regulation, and historic preservation and accessibility laws.**

[X] Met
[ ] Not Met

Visit Three Team Assessment: Evidence found in student work in course 408 Deontology and Values.

C.8. **Ethics and Professional Judgment: *Understanding* of the ethical issues involved in the formation of professional judgment regarding social, political and cultural issues, and responsibility in architectural design and practice.**

[X] Met
[ ] Not Met

Visit Three Team Assessment: Evidence found in student work in course 408 Deontology and Values.

C.9. **Community and Social Responsibility: *Understanding* of the architect's responsibility to work in the public interest, to respect historic resources, and to improve the quality of life for local and global neighbors.**

[X] Met
[ ] Not Met

Visit Three Team Assessment: Evidence found in student work in course 408 Deontology and Values

Realm C. General Team Commentary: Since Spanish architecture students graduate with a degree and a license to practice, it is obvious that within the highly structured curriculum to satisfy all legal requirements, emphasis must also be given to the professional practice of architecture. Architects are perceived in Spain as the leaders of the construction and the development industries. Therefore, an architecture program that provides education, practice and a Graduation Project jury that equates to a licensing exam must ensure a student's preparedness to adequately practice in the profession. The UEM program definitely does.

PART TWO (II): SECTION 2—CURRICULAR FRAMEWORK

II.2.1 National Authorization: *The institution offering the substantially equivalent degree program must be or be part of an institution that has been duly authorized to offer higher education in the country in which it is located. Such authorization may come from a federal ministry or other type of agency.*

[X] Met
[ ] Not Met

Visit Three Team Assessment: The Spanish Ministry of Education controls and authorizes higher education in Spain. In the case of the School of Architecture, initial accreditation is granted by ANECA, the national accrediting agency, and then this accreditation is renewed through the regional accrediting agency, which in this case is MADRI+D.

II.2.2 Professional Degrees and Curriculum: *For substantial equivalency, the NAAB requires degree programs in architecture to demonstrate that the program is comparable in all significant aspects to a program offered by a U.S. institution. This includes a curricular requirement that substantially equivalent degree programs must include general studies, professional studies, and electives.*

Curricular requirements are defined as follows:

- *General Studies. A professional degree program must include general studies in the arts, humanities, and sciences, either as an admission requirement or as part of the curriculum. It must ensure that students have the prerequisite general studies to undertake professional studies. The curriculum leading to the architecture degree must include a course of study comparable to 1.5 years of study or 30% of the total number of credits for an undergraduate degree. These courses must be outside architectural studies either as general studies or as electives with content other than architecture.*

  This requirement must be met at the university or tertiary school level. Post-secondary education cannot be used to meet this requirement. At least 20% of the credits in the professional architecture degree must be outside architectural studies either as general studies or as electives with other than architectural content.

- *Professional Studies. The core of a professional degree program consists of the required courses that satisfy the NAAB Student Performance Criteria (SPC). The professional degree program has the discretion to require additional courses including electives to address its mission or institutional context.*

- *Electives. A professional degree program must allow students to pursue their special interests. The curriculum must be flexible enough to allow students to complete minors or develop areas of concentration, inside or outside the program.*

[X] Met
[ ] Not Met

Visit Three Team Assessment: The team discussed the apparent inconsistencies of the UEM program to NAAB requirements for general studies and electives. At the end, we decided that the NAAB standard was not applicable to architecture education in Spain. Here, a good deal of general studies are taken before entering the university, in tertiary school, which they call "bachillerato." This knowledge is tested as part of UEM entry requirements. Electives and non-architecture courses are fewer than mandated by NAAB standards, but the UEM curriculum responds to Spanish Ministry requirements to comply with the predetermined professional curriculum. Nevertheless, between general studies in tertiary school, dual degree opportunities, and active student participation in activities outside the campus, the visiting team

feels that students are given enough chances to effectively broaden their education, and hence meet this condition.

II.2.3 Curriculum Review and Development

The program must describe the process by which the curriculum for the substantially equivalent degree program is evaluated and how modifications (e.g., changes or additions) are identified, developed, approved, and implemented. Further, the NAAB expects that programs are evaluating curricula with a view toward the advancement of the discipline and toward ensuring that students are exposed to current issues in practice. Therefore, the program must demonstrate that architects authorized to practice in the country where the program is located are included in the curriculum review and development process.

[X] Met
[ ] Not Met

Visit Three Team Assessment: Even with the firmly prescribed curricular study, the UEM has demonstrated the capability of adapting its curriculum to accommodate NAAB requirements as well as student preferences. Most of the faculty are practicing architects, so their participation in the curriculum review guarantees that it addresses current practice issues.

PART TWO (II): SECTION 3—EVALUATION OF PREPARATORY/PREPROFESSIONAL EDUCATION
Because of the expectation that all graduates meet the SPC (see Part Two, Section 1, above), the program must demonstrate that it is thorough in the evaluation of the preparatory education of individuals admitted to the NAAB substantially equivalent degree program.

In the event a program relies on the preparatory educational experience to ensure that students have met certain SPC, the program must demonstrate it has established standards for ensuring these SPC are met and for determining whether any gaps exist. Likewise, the program must demonstrate it has determined how any gaps will be addressed during each student's progress through the substantially equivalent degree program. This assessment should be documented in a student's admission and advising files.

[X] Met
[ ] Not Met

Visit Three Team Assessment: Administrators and faculty inform that the review of transfer students into the program is done on a case-by-case basis, and evidence was found in detailed admissions documents provided to the team. The transfer from other Spanish universities is simpler since all have to abide by the curricular structure imposed by the Spanish Education Ministry. When they come from other countries, all courses taken by the student are evaluated against the UEM curriculum and in most cases remedial courses are required before acceptance into the program.

PART TWO (II): SECTION 4—PUBLIC INFORMATION

II.4.1 Statement on Substantially Equivalent Degrees
In order to promote an understanding of the substantially equivalent professional degree by prospective students, parents, and the public, all schools offering a substantially equivalent degree program or any candidacy program must include in catalogs and promotional media the exact language found in the NAAB Conditions for Substantial Equivalency*, Appendix 6.*

[X] Met
[ ] Not Met

Visit Three Team Assessment: The school has posted a thorough description of substantial equivalency on the home page of the School of Architecture website, as stipulated by this condition.

II.4.2 Access to NAAB Conditions and Procedures
In order to assist parents, students, and others as they seek to develop an understanding of the body of knowledge and skills that constitute a professional education in architecture, the school must make the following documents available to all students, parents, and faculty:
The 2012 NAAB Conditions for Substantial Equivalency
The NAAB Procedures for Substantial Equivalency (edition currently in effect)

[X] Met
[ ] Not Met

Visit Three Team Assessment: A full version of Substantial Equivalency NAAB Conditions and Procedures is posted on the UEM website.

II.4.3 Access to Career Development Information
In order to assist students, parents, and others as they seek to develop an understanding of the larger context for architecture education and the career pathways available to graduates of substantially equivalent degree programs, the program must make appropriate resources related to a career in architecture available to all students, parents, staff, and faculty.

[X] Met
[ ] Not Met

Visit Three Team Assessment: The school's pursuit of SE with the NAAB in itself is a prime example of their dedication to career development for their students. Links to relevant websites can be found on the school's website. Furthermore, having faculty who also practice part time creates an atmosphere of open career mentorship to students.

II.4.4 Public Access to APRs and VTRs

In order to promote transparency in the process of substantial equivalency in architecture education, the program is required to make the following documents available to the public:
The final decision letter from the NAAB
The most recent APR
The final edition of the most recent Visiting Team Report, including attachments and addenda

These documents must be housed together and accessible to all. Programs are encouraged to make these documents available electronically from their web sites.

[X] Met
[ ] Not Met

Visit Three Team Assessment: Most recent APR, VTR, and NAAB letters are posted in the school's virtual campus (accessible to the entire school community) and are available in the school library.

III.   Appendices

Appendix 1. Program Information

A.   History and Mission of the Institution and the Program

APR, page 6

B.   Long-Range Planning

APR, page 31

C.   Self-Assessment

APR, page 36

Appendix 2. Conditions Met with Distinction

A.3 Visual Communication Skills

A.5 Investigative Skills

B.9 Structural Systems

B.10 Building Materials and Assemblies

Best practices:

- **Innovative ideas and approaches to enhance architectural education**—In course development and implementation, the team observed faculty and students fully engaged in learning. Most students we met had taken advantage of the school's multi-disciplinary and/or international options (dual degrees and foreign exchange) or were planning to do so. Dual language class offerings allow Spanish-speaking students to develop English language skills, and for other students to immerse themselves in Spanish language. Furthermore, we were quite impressed by the consistently high level of development in Graduation Projects, as well as by their graphic strength.

- **International profile and approach**—As part of Laureate International Universities, the program, school and university offer a unique global perspective, as well as access to a wide range of experiences in Spain and abroad. Their pursuit of multiple accreditation reviews and certificates is an indication of their mission to prepare students for global practice.

- **Consistency of message and effort**—Students, faculty, and administrators presented a strong and consistent message about the mission of the university and the position of the architecture program. The team found this to be evidence of clear and powerful communication at every level of the organization. This perception was reinforced in our interactions with alumni and local professionals—even among those who have no direct affiliation with the school.

Appendix 3. Visiting Team

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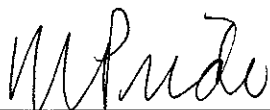
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IV.   Report Signatures

Respectfully Submitted,
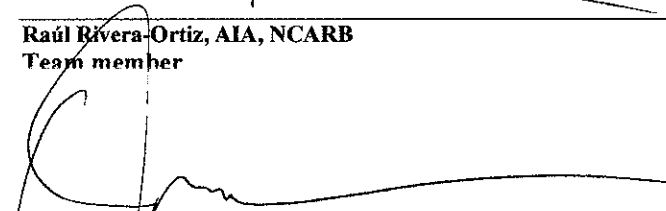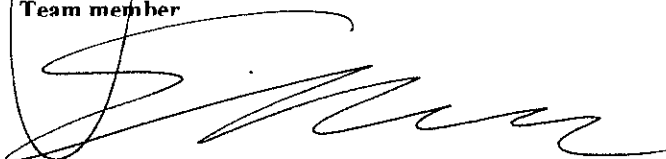

Michaele Pride, AIA, NOMA
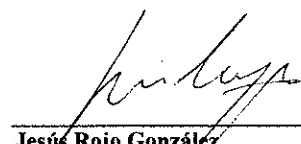Team chair

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